
Offender Supervision with
ELECTRONIC TECHNOLOGY
Community Corrections Resource [second edition]
BJA
Bureau of Justice Assistance
U.S. Department of Justice
A Force for Positive CHANGE.

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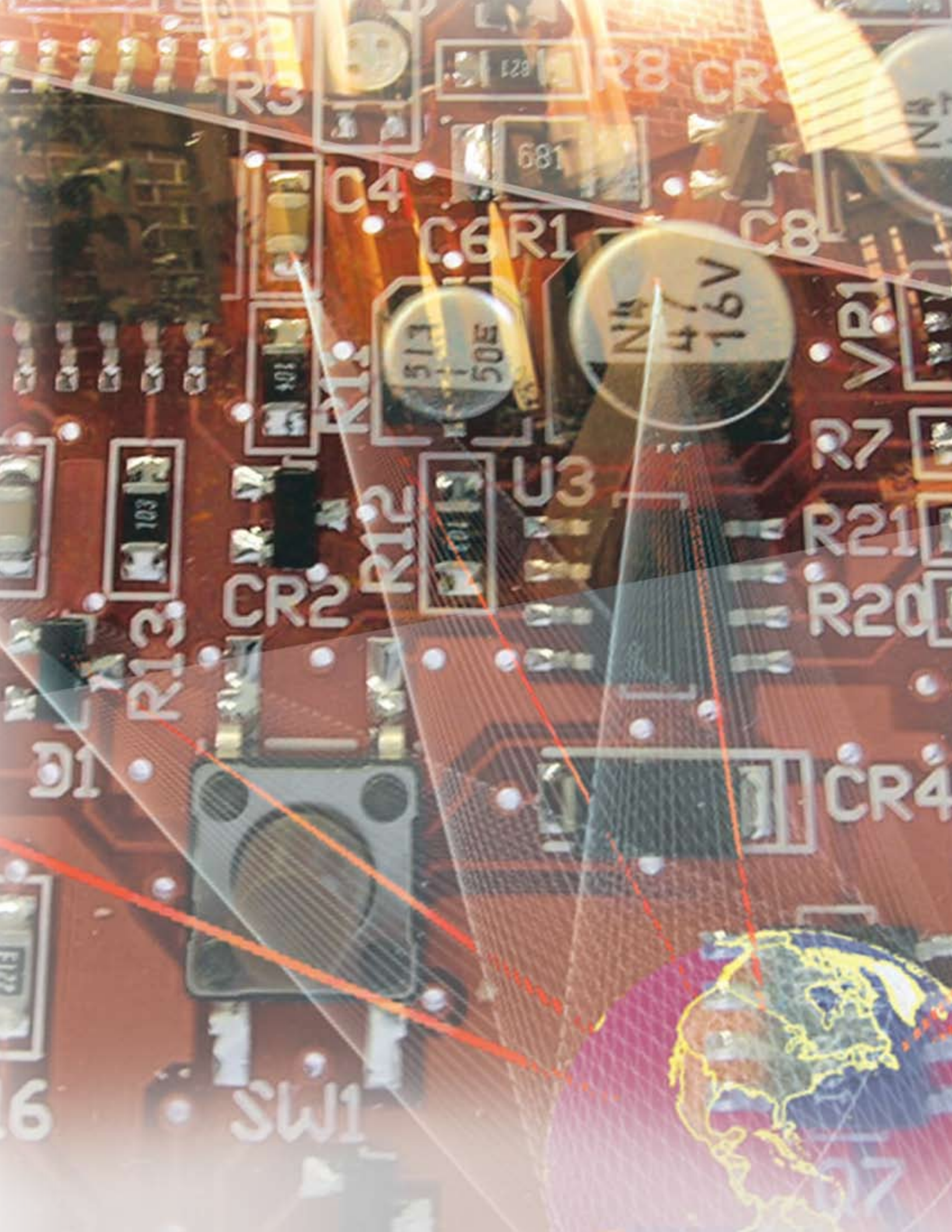
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PREFACE

Technological change is often involved with social change. Take a moment to think of some of the more important social changes and their relationship with the emergence of new technologies. The authors of this second edition were talking about this issue one day, and our conversation turned toward the light bulb. Now, neither of us has any special knowledge of light bulbs; we only know how to turn them on and off, and replace them. However, we agreed that the light bulb was partially responsible for major social change. Consider life before the light bulb. All light depended on either the sun or something burning in a controllable manner, such as a fireplace or candle. No doubt, the amount of light in a dwelling would have encouraged a person to leave the house during the hours when the sun was out. People would wake and begin work early to take advantage of the natural light, only returning later in the evening just before sunset (or so we theorized). Houses often would be dark, making it hard to see anything. It was at this point that one of us realized we were not talking only about the light bulb, but we had ventured to talk about electricity in general, which brought about new construction, new economies, and new ways of being. Then, one of us said, with some sarcasm, "Oh yeah, I suppose you're gonna start talking about *the wheel* and *fire*, now."

We do not intend to exaggerate the light bulb's responsibility in advancing Western civilization into some enlightened (pun intended) modern social world. No, we are just pointing out that technological change and social change often run together. Neither of us is suggesting a causal relationship between these phenomena—that would be a book-length subject in itself. We are saying that this broad field of electronic supervision technologies is accompanied by changes in the community corrections field and in the broader justice system as well.

The number of electronic items in our lives has increased tremendously. Next time you go the store, count the number of people on cell phones or iPods, and notice the empty (or removed) phone booths. Many of you may remember the days before Google™, Yahoo®, and Youtube™, while others may recall logging onto the Internet with a 56k dial-up modem. These seemingly insignificant changes can potentially have dramatic effects on society and organizations (in this case, community corrections agencies). Technologies change the way we frame many of our daily activities. Cell phones, for instance, have changed how and when to make phone calls. And, the Internet has changed how we find useful pieces

of information. Perhaps we turn to Google™. If we are looking for guidance about new ways to do things, we can watch an instructional video on Youtube™ (this strategy helped one of the authors tile his floors last summer). Simply put, technological advances shape how we choose to live our lives.

Electronic supervision tools have the potential to bring about significant changes in the community corrections field. Before proceeding, it is important to realize that we are not applying any value statements to our observations; we are merely reporting what we have seen, a task similar to, but far less exciting than, Charles Darwin's time among the Galapagos Islands. Nonetheless, we think it is important for the community corrections field to consider more openly the ramifications of electronic supervision technologies. We need to peel back any subjective layers to get a clear objective perspective of what these technologies—which are, above all else, tools—can do for the community corrections field. How do they affect the everyday job of a community corrections officer? This hypothetical question is part of what we hope to answer with this guidebook. That is, we looked to see how the emergence of electronic supervision tools has affected the community corrections field. We have not laid out explicit hypotheses; nor have we sought to conduct an experiment. Instead, we have poured through agency reports, reviewed statistical data, held working group meetings, attended conferences, delivered speeches, conducted online requests for information from the field, and utilized other strategies to find out how electronic supervision technologies are changing the community corrections field, a question that had to be answered before we could offer practical and policy guidance.

This book is not intended as the final word in the use of electronic supervision in the community corrections field. As you will see, this book is built upon the work that has come before, and we hope to move the field away from thinking of electronic supervision tools as some kind of savior or panacea. Effective community corrections supervision was built through human relationships, and that will continue to be the case. Electronic supervision technologies, as we stress, are tools and nothing more. These tools will not, all by themselves, solve all of your agency's problems—in fact, they may create new ones. Justice issues often have political implications, such as the idea that longer prison sentences are the only way to be "tough on crime." Electronic supervision tools may offer a mid-point between incarceration and no electronic supervision.

Electronic supervision tools have the potential to extend the scope and nature of community supervision. Some technologies allow for knowing, in near real-time, the general whereabouts of someone, while others allow for detecting remotely the alcohol content of an individual. As we alluded to above, technological changes often co-occur with broader social changes. The use of electronic supervision tools is no different, as these tools extend a community corrections officer's gaze into some relatively private areas. We must be careful about reducing our privacy (and other) rights without carefully considering potential negative consequences. In this guidebook, we argue for knowledgeable, data-driven approaches to develop, implement, and maintain community corrections' electronic supervision practices.

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2009

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A special debt of gratitude is owed to Joe Russo and his colleague, George Drake, of the National Law Enforcement and Corrections Technology Center as they and several members of a National Institute of Justice technology committee they steer reviewed the entire document—Tim Griffin, George Drake, Ken Wagner, Robert Doty, Lin Miller, Ed Harrison, and Lois Pugh. Robert Gable of Claremont Graduate University also reviewed the entire manuscript and provided in-depth feedback that improved the final document. Having Professor Gable review the document was especially important to us as he was one of the original innovators of electronic supervision tools several decades ago, and he has remained an authority in the use of electronic supervision as a tool to assist with altering individuals' behavior. Deanna Button (University of Delaware) and Jessica Ekhomu (Georgia State University) provided research assistance on all aspects of this guidebook, and Todd Jermstad provided additional legal research and advice. Tracy Brown, Steven McCabe, and Charles Wellford provided us with important feedback and support as they worked on a related project funded by NIJ, *Global positioning system (GPS) technology for community supervision: Lessons learned*. Peggy Conway,

editor of the *Journal of Offender Monitoring*, provided valuable assistance on several aspects of this project.

The authors of the first edition of this guidebook deserve special recognition—Ann Crowe, Linda Sydney, and Pat Bancroft—as the second edition would not have been possible without their hard work. We felt pressure trying to live up to the standard they set with their publication of the first edition, which APPA continues to receive many requests for and is routinely cited in the electronic supervision literature. The Bureau of Justice Assistance and the National Institute of Justice deserve credit for their willingness to fund this project. Leaders at both of these agencies recognized that the electronic supervision field had changed over a short period of time, which left the community corrections field and policymakers in need of information for developing and maintaining any electronic supervision component. There were two individuals most helpful from these agencies—Andrew Molloy and Julius Dupree—both of these individuals routinely answered questions, reviewed articles, chapters, and the final document to provide us with needed guidance and support to complete this guidebook. With this said, however, we know that this document is not perfect, and any flaws should not reflect upon the individuals kind enough to assist us, as all errors are the sole responsibility of the authors.

AN OVERVIEW OF SUPERVISION WITH ELECTRONIC TECHNOLOGY

INTRODUCTION

The U.S. correctional system is bursting at the seams (Christie, 2000). Many of you have seen the figures reported periodically by the Bureau of Justice Statistics (BJS) showing that around two million adults are incarcerated, about 750,000 offenders are on parole, and more than four million adults are on probation. These population figures should not come as a surprise to many of you reading this guidebook because you have an official justice system role. It does not matter if you are a policymaker, a correctional administrator, or a newly entering officer. You are familiar with these numbers because you see them every day when you go to work.

It seems the community corrections field is typically ignored when it comes to talking about public safety. In fact, think about the last time your agency or one of your officers made it in the newspaper or on the news. If so, was this report about a successful probation or parole completion? We imagine not. Recently, one of the authors attended a community corrections conference, and while at this conference, a gentleman stood to speak about the difficulty of providing community supervision in his jurisdiction. This gentleman had grey hair, and looked and spoke with a certain amount of weariness because, as he declared, he was *disappointed* about his lack of control over the agency he administered. According to this man, his "hands were tied." The prisons were full, which prevented the jails from sending convicted (serious) offenders to prison, and led to jail overcrowding that resulted in releasing offenders early. Many of these early jail releases were placed on probation at such a rate that reasonable workload allocation was nearly impossible. While this was going on, the prisons also needed to "free some bed space," resulting in many inmates being released early onto parole. As this man continued to speak, it became obvious that he was living what many academics have referred to as the incarceration boom or penal crisis of the past 30 years.

We are not going to offer explanations for this penal crisis in this guidebook (see Christie, 2000; Garland, 1990, 2001). Our goal is to provide practical information for the community corrections field to make informed decisions about incorporating electronic supervision technologies. The more recent push toward increased use of electronic supervision

technologies did not emerge out of a social vacuum. No, the rapid growth in electronic supervision technologies is related to what has happened in the correctional field since the mid-1970s. Consider that the U.S. incarcerated about 100 to 125 adults for every 100,000 in the population from about the mid-1920s until about 1973. For various reasons, U.S. justice system populations have grown to unprecedented levels since the mid-1970s, with imprisonment rates around 700 per 100,000 (Tonry, 2004).

Incarceration does not come cheap, however. In fact, incarceration is rather expensive, with estimates ranging from $20,000 to $30,000 to keep one offender incarcerated for one year. These estimates can be doubled and even tripled for some geriatric and special needs inmates. All levels of government are feeling the financial squeeze related to "caring" for so many people. Public discussions about crime and justice issues typically involve politicians appearing "tough" on crime by talking about the death penalty, longer prison sentences, and "locking 'em up and throwing away the key." These sorts of punishments are not necessarily wrong in and of themselves, but we cannot allow policy discussions to become locked on prison sentences as the only form of "real punishment." It seems that the public (and justice system practitioners) have come to overlook community sanctions as meaningful punishment. This is not to say that the public is against community supervision. Rather, often when crime and justice policies are discussed, the most sensational cases are covered as though they are the mainstream.

We have punitive options outside of incarceration. The community corrections field can and does provide adequate oversight to supervisees in such a way that public safety is not hampered. Despite the periodic reports of "parole doesn't work" (Solomon, Kachnowski, and Bhati, 2005), and media reports of probation failures, let us remember that a prison stay rarely has pro-social transformative effects. That is, if by "work" we are referring to recidivism, then we already know that individuals released from prison are typically rearrested.

There needs to be a change in how we *frame* this penal crisis. The notion that one agency works and another does not work is erroneous, and merely sets us up for turf battles, organizational boundaries, and little collaboration. Instead, we need to see prisons, jails, and community corrections as part of what the Science and Technology Task Force of President Johnson's 1967 Crime Commission understood as the *criminal justice system*. By *system*, the Task Force was referring to the interdependence of the various branches involved in delivering justice and safety to the country. These agencies cannot effectively deliver public safety without collaboration. When prisons work with post-release supervision agencies well in advance of a release date, inmates are better prepared to enter the community. Probation officers rely on police officers to assist with home visits, while jails provide short-term stay options.

By recognizing that the community corrections field is one entity in an overarching system designed to deliver public safety, we can acknowledge that incarceration is only one form of sanction. Formal sanctions, after all, should do more than just deliver pain. A more powerful perspective frames criminal justice sanctions as a complex strategy that recognizes that someone has committed an act prohibited by legal codes (or they may have, in some cases, failed to act when

compelled by the law). Simply, someone has been caught doing something against the law. The question we have to ask ourselves is, "Do we only want to inflict pain on a law violator?" Or do some law violators need a different approach? This other approach, we suggest, includes community supervision. Community supervision officers have several tools at their disposal to contribute to watching (surveillance), re-educating (treatment), and holding offenders accountable (enforcement) (Paparozzi and DeMichele, 2008).

The question we have to ask ourselves is, "Do we only want to inflict pain on a law violator?" Or do some law violators need a different approach? This other approach, we suggest, includes community supervision.

ELECTRONIC SUPERVISION: WHAT CAN IT OFFER THE COMMUNITY CORRECTIONS FIELD?

No doubt you have heard someone talk about "electronic monitoring" or "electronic supervision" and wondered if you could or should consider implementing, or have implemented something similar in your jurisdiction. It does not matter if you are a policymaker, judge, or community corrections administrator; all of us are interested in providing effective public safety interventions with as few resources as possible. Let us be honest. Times are tight, and with more supervisees in general, greater numbers of higher risk supervisees, and budget cuts, things are getting tougher. We do not want to exaggerate this economic cycle because most of us have seen better and worse fiscal times—this one will pass as well.

It is important to develop effective community supervision strategies, and electronic supervision technologies may be a valuable part of these strategies. The electronic supervision field has grown significantly over the last decade. This growth has brought not only more tools used in the field, but also a wide variety of tools that only a few years ago did not exist. Agencies are now experimenting with kiosk reporting, secure remote alcohol detection, global positioning systems (GPS), and in England there is a major push toward close circuit television systems that can be integrated with facial recognition software to identify suspected individuals. This technology has gone another step further to develop unmanned small aircrafts that can fly over, for example, a soccer stadium, while using facial recognition software. The possibilities seem nearly limitless within the electronic supervision field as radio frequency identification (RFID) chips are designed to fit just under the skin and can be read in a manner similar to a bar code on a cereal box.

These emerging technologies may concern some of you. On the one hand, some readers may recall reading George Orwell's classic novel, *1984*, and feel that these technologies are putting us closer to the dystopia in which Winston (Orwell's protagonist) worked and lived. On the other hand, there are probably some of you that find these technological possibilities exciting as they actually have the ability to make our lives easier (something captured in one of Orwell's other books, *Animal Farm*). In this guidebook, we will stress the importance of seeing electronic supervision technologies as just that, technologies. These technologies have the potential to enhance community supervision. They also: (1) have the possibility to break, (2) may fail to report violations, (3) could cause officers untold stress, and (4) may lead to other potential negative consequences. Electronic supervision tools do not have intrinsic supervisory powers. Rather, these tools are only as good as they are implemented and operated.

This dichotomy of use can be clearly seen when considering how it is that electronic supervision tools were developed. Actually, the first of these tools (and more is said about this later) was created by twin brothers, R. Kirkland and Robert Schwitzgebel, who studied at Harvard University in the 1960s. They were interested to see how operant conditioning (and later social learning theory) could be applied in a practical setting with juvenile offenders to deliver positive reinforcement for good behavior on the part of their test subjects. These two researchers were pioneers, not only in thinking of electronic supervision, but rather in the enlightened way they believed it could help individuals. This may seem only a small point, but it emphasizes our point that electronic supervision tools are merely tools and whether they "work" or "don't work" is a complex and relative question (issues that are discussed later).

The Schwitzgebel brothers were onto something good when they were considering their new invention by looking for ways to respond to good behaviors quickly. During the 1960s, many recognized the potentially harmful effects of incarcerating younger offenders, as it was believed that the *labeling* process could foster a self-fulfilling prophecy that fostered more criminality (Becker, 1963). Electronic supervision tools can contribute to several different effects depending on how you use them.

Electronic supervision technologies by themselves do not foster pro-social behavior, reduce recidivism, or reach any other desired outcome. When implemented and operated within an overall strategy of behavioral modification, however, there is the potential for some electronic supervision tools to enhance community supervision. Let us consider a popular example of GPS tracking for high-risk sex offenders. Is it expected that the GPS bracelet will alter someone's sexual proclivities? This is not to demonize all sex offenders—this is a large criminal category—but when we talk about high-risk sex offenders these are typically (according to standard risk assessments) individuals that have longstanding sexual desires and behaviors that are illegal. These desires are not going to be altered by simply putting a bracelet on an offender. What could work, though, is if GPS tracking is one part of an overall comprehensive strategy of supervising high-risk sex offenders. Unfortunately, we are not going to find a quick fix to sexual offenses, domestic violence offenses, gang problems, or any other criminal activity by simply prescribing the adoption of an electronic supervision tool (LaFond, 1998).

The community corrections field is a human relationship intensive occupation. In probation circles, John Augustus' name frequently appears as he is credited as the founder of probation in the United States. Augustus, for the most part, recognized that not all incarcerated individuals, with many of them awaiting trial, actually needed to be imprisoned. He argued, and actually placed his own money on the line, by bailing some of these individuals out of jail under his supervision. The central problems leading to further criminality, Augustus argued, were drunkenness and unemployment. He did not use advanced statistical techniques to test this assertion. Instead, he was a local merchant who observed how the courts and jails worked in mid-19th century Boston, and he realized that some of these individuals needed a helping hand or a second chance, so to speak. He worked with these individuals, gave them or found them jobs, and provided them with something of a watchful eye when they started to drift.

If we move about 150 years into the future, we arrive at our current times to see that the community corrections field still embraces some of these practices. Although Augustus did not use an "actuarial risk assessment," he did assess the risks of each person he took under his wing; he recognized the importance of some important factors (e.g., alcoholism, unemployment) that remain significant today, and he applied a system of addressing these (criminogenic) needs. Many things have changed since the 1800s, and today the community corrections field has a great many more tools to use than Augustus had. What has not changed, however, is the need to incorporate human interaction with these new (and old) tools.

PROJECT OVERVIEW

This guidebook was first published in 2002, with funding from the National Institute of Justice (NIJ), by the American Probation and Parole Association (APPA). Its intention was to assist manufacturers, service providers, and product and service users in the field of electronic technology to enhance their use of technology for effective community-based supervision of supervisees through research, education, and training. The primary objective of the project was to develop and deliver an information package for users of electronic supervision tools. The original authors, Ann Crowe, Linda Sydney, and Pat Bancroft, established a working group comprised of equipment manufacturers, electronic supervision services providers, and representatives of programs using electronic supervision technologies to assist project staff in the development of this document. The original authors worked closely with this working group for several years prior to the publication of the first edition.

The electronic supervision field experienced serious growth during the years following the publication of the first edition. Two significant trends seemed to occur with electronic supervision tools—(1) the emergence of GPS tracking and (2) the development of technologies designed specifically for lower risk offenders. These issues were relatively absent from the first edition because they were not widely used at the time of publication. Additional funding from the Bureau of Justice Assistance (BJA) and NIJ allowed for updating *Offender Supervision with Electronic Technology*. These revisions were to concentrate on relevant legal issues, GPS tracking, emerging technologies, and evidence-based practices.

The authors of this second edition benefitted greatly from the work of the original authors. In fact, the original

authors began the preliminary work to complete a second edition. They held a working group meeting in which members identified areas that needed alteration by developing a new outline. Two of the original authors retired from APPA, and the current authors used the outline established by the working group and the original authors. We have tried our best to follow the intentions of the original authors and the working group in making our revisions.

WHAT'S TO COME

We hope readers find our contribution with this second edition to be a helpful tool in making decisions about electronic supervision technologies. The first chapter provides a basic overview of the electronic supervision technology field, and includes a brief history of how electronic supervision tools have progressed over time. The second chapter explores some of the tools currently being used in the field. This discussion mentions both strengths and weaknesses of each type of technology. The third chapter is entirely new, and provides something of a quick overview of evidence-based practices and how they relate to electronic supervision tools. In the fourth chapter, organizational issues are discussed, such as leadership issues, community needs, specific purposes and goals for each tool, and others. The fifth chapter is a heavily revised discussion of legal issues facing the community corrections field when using electronic supervision tools.

In chapters six and seven, several important issues related to the procurement and implementation of electronic supervision technologies are included. Often in the community corrections field we forget to prepare specific policies and procedures for procuring, implementing, and operating an electronic supervision tool. Chapter eight is a heavily revised discussion of ongoing supervision issues. Once an agency purchases an electronic supervision tool, it must deal with numerous issues to maintain and properly use such equipment. Human resources issues are covered in chapter nine, and this chapter is very much the same as it was in the first edition. Then evaluations are discussed in chapters 10 and 11, with cost-benefit analysis explained before process and impact evaluations are detailed therein. The final chapter is devoted to public relations issues and provides strategies for working with external stakeholders before and after implementation.

1 AN OVERVIEW OF SUPERVISION WITH ELECTRONIC TECHNOLOGY

Electronic supervision of offenders evokes many images. Some see it as punitive, whereas others see it as lenient. Some view it as a means to improve supervision, whereas others view it as a way of saving correctional dollars by alleviating jail crowding. Some feel it is best used for offender accountability, although others believe it is better used for treatment compliance and adding structure to offenders' lives (Bonta, Wallace-Capretta, and Rooney, 2000a, 2000b). Some are intrigued by such technological tools, others are baffled by them, and still others question such devices as being one part of an emerging surveillance society (Marx, 2002). Regardless of these perspectives, there are many misperceptions of what electronic supervision technologies can do, how they work, and what it takes to use them. The most well-known types of electronic supervision technologies are radio-frequency devices used to monitor home confinement orders and global positioning systems (GPS). Although these are the most prevalent types in use, electronic supervision technologies include an assortment of devices such as kiosk reporting, remote alcohol detection, biometric analysis, and eye scanning. This book is intended to provide direction to community corrections agencies regarding electronic supervision in a broad sense, but it is specifically intended to provide direction given the recent push for electronic monitoring of high-risk offenders, especially sex offenders, with GPS.

Electronic supervision of offenders has existed since the early 1980s in the U.S. and in much of Western Europe. The *Journal of Offender Monitoring* publishes an annual survey of community corrections departments to estimate the number of offenders with electronic supervision as a condition of their release. This survey was first completed in 1999 and found that there were about 75,000 radio frequency and GPS devices in use (Conway, 2008). Peggy Conway, editor of the *Journal of Offender Monitoring*, provides survey data that demonstrates considerable growth in the use of these technologies with nearly 200,000 GPS and RF units projected in use in 2009 (see Tables 1a and 1b). Alongside this growth in individuals supervised with electronic technologies, there have been numerous legislative mandates as well as technological advances (Button, DeMichele, and Payne, 2009). The legislative changes and technological capabilities focus on the desire for (near) real-time location tracking of offenders (see Ballard and Mullendore, 2002). Initially, home

arrest programs utilized various radio frequency technologies to determine if an offender was at home during specified times of the day. This, however, told nothing about what the offender was doing while at home (or during those times he or she was allowed away from home). The technological community responded to this gap by developing devices that take advantage of GPS capabilities to provide information about where a supervisee is located. Before describing the development of electronic supervision technologies, we will mention briefly the foundation of this book and provide guiding principles.

Table 1a. Use of GPS Tracking Products in the U.S. Over Time

Year End	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
% Growth								95.6%	86.1%	66.5%	47.0%
# GPS Units	230	395	647	1,276	2,394	5,000	10,250	20,046	37,299	62,121	91,329

NOTES:

(1.) % Growth is growth since previous year, and is calculated based on a rolling average of growth rates attained in surveys

(2.) Actual growth rates for GPS Units from 4Q08 survey were 86% from 2005 to 2007 and 47% from 2007 through 2009

Table 1b. Use of RF Home Curfew Products in the U.S. Over Time

Year End	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
% Growth								5.6%	6.1%	6.8%	6.0%
# RF Units	75,000	73,013	73,647	75,398	79,181	82,643	85,863	90,643	96,191	102,747	108,912

NOTES:

(1.) The current market size for RF could be over or understated by as much as 15,000.

(2.) Nearly all literature reports 1999 RF use to be 100,000 units. This was due largely to information published in The Journal of Offender Monitoring where manufacturers historically reported the number of units manufactured versus the number deployed. Historical data have been adjusted to compensate for over reporting.

(3.) Microelectromechanical RF products are counted as RF units even though it also tests for alcohol.

(4.) % Growth is growth since previous year, is calculated based on a rolling average of growth rates attained in surveys

(5.) Actual growth rates for RF Units from 4Q08 survey were 7.7% from 2005 to 2007 and 5.25% from 2007 through 2009

(6.) Prepared by Peggy Conway 1Q 2008. Data gathered started in 1999 and uses manufacturer data and interviews as well as data provided by agencies in telephone interviews, RFP/ITBs, published and web site reports as well as survey responses. Interviews conducted in 2007 are combined with data gathered during 2007 and 2008 to produce current market size and future growth. Most recent survey conducted in 4Q 2007.

THE FOUNDATION OF THIS DOCUMENT

For the purposes of this document, the term electronic supervision technologies refers to an array of processes using various electronic tools to acquire information on offender behaviors. Reporting kiosks, remote alcohol detection devices, ignition interlock systems, identity verification systems, monitoring equipment, and others to detect offenders' compliance with restrictions or to track their locations are among the variety of electronic technologies considered in this document. Besides this extensive assortment of technologies, various features may be found within each type. However, it should be emphasized that the intentions of this book are to provide community corrections agencies with the needed

information to aid their decision-making process regarding implementing, adjusting, and maintaining or eliminating an electronic supervision component, not provide a complete assessment of each technology. APPA does not endorse any particular manufacturer or product; nor do we suggest that agencies should include electronic supervision components in their agencies. Instead, we hope to provide the community corrections field as well as policymakers with information to consider before acquiring any new electronic supervision technology as well as programmatic information for agencies already using electronic supervision tools.

Terminology

A range of terminology is presently used when discussing electronic supervision. One of the most frequently used terms is electronic monitoring, which traditionally was associated with technologies that determine whether an offender is at home (or other locations) as stipulated by his or her conditions of supervision, often referred to as "curfew monitoring." It also may refer to location tracking technology in which offenders' locations can be tracked such as with GPS. In this document, the broader term, *electronic supervision*, is used to include a larger array of technologies that assist with the supervision of individuals in other ways, particularly those that can monitor alcohol use remotely and technologies that streamline routine reporting tasks for both supervisees and agency staff. The term *electronic monitoring* will be used to refer to traditional curfew monitoring tools (e.g., voice verification, radio frequency devices), and *location tracking* will be reserved for GPS.

Principles Guiding This Document

Electronic supervision technologies provide a tool to gather information that may enhance supervision. Electronic supervision technologies — in and of themselves — do not constitute a *program* within the justice system; they are merely one mechanism that can enhance the effectiveness of a program or overall strategy. Although there are several purposes for which electronic supervision technologies may be used, an overriding consideration in the employment of such devices should be public safety. Therefore, the careful selection of goals and supervisees with whom to use these tools is among the most important decisions to be made. The needs of the justice system should mold the electronic supervision industry. Too frequently a tool has been created and a need for it has been found. Instead, the justice system should define its needs and convey how electronic supervision equipment and services should be employed to meet these needs. Electronic supervision tools rely on well-trained staff to implement and utilize this equipment. Without professional staff, electronic supervision technologies will not promote public safety.

The guidebook is based on extensive research including focus groups meetings and review of policy documents, evaluations, and scientific studies to identify promising practices that can currently be found among a variety of justice system programs. One difficulty encountered throughout the preparation of this document is the lack of evaluative data on the implementation of electronic supervision technologies. Few evaluation studies have been completed, and in many cases where these have been conducted, the samples are very small or there are other methodological problems that limit their definitiveness. This is not to say that research does not exist, just that it is limited and *exploratory* at this

time (as opposed to being definitive and *explanatory)*. Furthermore, the electronic supervision field is so large that many technologies have yet to be considered for research, such as the effectiveness of remote alcohol devices or automated calling procedures. The limited research that does exist focuses on electronic monitoring and GPS, and it ignores the broader field of technologies. Agencies that are developing or enhancing a program that includes electronic supervision are encouraged to include an evaluation component from the beginning (evaluations are covered in Chapters 10 and 11). It is crucial that more evaluation data be gathered and analyzed to fully understand the significance of electronic supervision technologies and to assist in molding more effective implementation efforts in the future.

THE EVOLUTION OF ELECTRONIC SUPERVISION

Electronic supervision of justice system supervisees is not a new idea. The first use of electronic technology for this purpose occurred in 1964. An experimental system was used to monitor the whereabouts of parolees, mentally ill patients, and research volunteers in Cambridge and Boston, Massachusetts. The participants in this first endeavor wore what now seems like cumbersome equipment weighing about two pounds. Participants were monitored within a prescribed monitoring area where repeater stations were located. When these repeater stations were activated by a participant's transceiver, the location of the person was recorded on a strip recorder and displayed on a lighted map at the base station (Gable, 1986). The developers of this system said that "when specific offending behaviors can be accurately predicted and/or controlled within the offender's own environment, incarceration will no longer be necessary as a means of controlling behavior and protecting society" (Schwitzgebel, Schwitzgebel, Pahnke, & Hurd, 1964, p. 237, as cited by Gable, 1986, p. 167). Apparently, the originators of the electronic supervision concept and its earliest equipment had high expectations for its effectiveness.

The Honorable Jack Love, a District Court Judge from Albuquerque, New Mexico, took the electronic supervision concept to the next level. In the late 1970s, Love had the idea of using an offender's telephone to report his or her presence or absence at home. The now familiar combination of a home monitoring unit and a transmitter worn by the offender emerged. In 1983, the first offenders were placed under this form of "house arrest" in Albuquerque (Burks, 1989).

In 1986, the U.S. Parole Commission developed an experimental "Curfew Parole Program" for the early release of some inmates. This program began by using telephone calls and in-person contacts to monitor home curfews of offenders between 9:00 p.m. and 6:00 a.m. However, because of limited resources and concerns about the enforcement of curfews, a pilot study was developed and implemented in 1988 to evaluate the use of electronic equipment to monitor the offenders in the curfew program. The following year the program was expanded to include probationers and pretrial defendants. By 1991, the Federal system was implementing electronic supervision nationally (Gowan, 2000).

Parallel efforts began in State and local jurisdictions in the mid- to late-1980s with enthusiastic anticipation by many justice system professionals. Corbett (1989) reports that the *Wall Street Journal* described electronic supervision as the "hottest new technology in crime control" (p. 74). He goes on to report the prediction by Bennett (1989) that electronic

monitoring would be the "dominant means of probation and parole supervision within the next 20 years" (Bennett, 1989, as cited by Corbett, 1989, p. 74). Corbett further notes that between 1987 and 1988, the use of electronic supervision increased three-fold. Clearly, the early use of electronic supervision technologies was met with enthusiasm and anticipation. Electronic supervision was heralded as a solution for many prevailing problems, including large caseloads, crowded jails and prisons, and the high costs of incarceration and supervision.

Today, the use of electronic supervision appears to be an established component within some agencies as a way to alleviate workload pressures and still deliver public safety. One example of technological efficiency is reported by the New York City Probation Department, which has shifted 70% of their probationers to kiosk reporting, with no reported differences in technical violation or new crimes. This system allows offenders to report as frequently as needed to a machine—resembling an ATM—that uses a thumb print scan to identify the user, and takes a photograph and video of the reporting session. Kiosk reporting requires supervisees to complete a series of questions related to his or her progress, and instructs them to, for example, report for a urinalysis, contact their supervising officer, or follow other instructions. This electronic supervision technology is not expected to reduce failure rates (however measured), but it may prove effective at improving public safety by allowing officers to spend more time and energy with high-risk offenders not suitable for kiosk reporting. Electronic supervision technologies are still in the initial evaluation stages, so it is difficult to determine their effectiveness. We suggest keeping an open mind about electronic supervision technologies, and realize that all of these tools have specific strengths and concerns.

APPLICATIONS OF ELECTRONIC SUPERVISION

The following examples of electronic supervision illustrate some of the ways in which electronic technologies can enhance the supervision of supervisees in the community. It is not an exhaustive set of examples. Every program has its own particular features that meet the needs of the jurisdiction and the agency within which it is located. However, these examples were selected to indicate the array of needs that may be addressed with electronic technologies.

Jail Release Programs

A variety of conditions may occur through which individuals serving time in jail or prison are released in the community while still under correctional supervision (other than parole), and some of the programs incorporate electronic supervision. In Oakland County (Detroit), Michigan, work-release inmates may be supervised electronically while they serve part of their sentences at home. Work release is a typical part of many jail programs. However, in most cases the offenders return to the jail when they are not working. Offenders in Detroit must first serve at least 30 days in the traditional work-release program, and then they may qualify for work release with electronic supervision (Gray, 2001).

In Waldo County, Maine, jail inmates are being supervised electronically while they are on furlough for medical care, substance abuse treatment, funerals, and other emergencies. In many of these situations, without electronic technologies, offenders would be accompanied by sheriff's deputies when leaving the jail. The program uses a combination of electronic

equipment that tracks offenders' movements, verifies their presence at home or in a medical facility with a video monitor, and tests them remotely for alcohol consumption. Only minimum-security inmates are considered for this program. Offenders released with this system must pay the cost for installing the equipment and a daily supervision fee (Griffin, 2001).

Intermediate Sanctions (and other Responses)

Electronic supervision tools function well as an intermediate sanction. Intermediate sanctions are one way for officers to respond to noncompliant supervisee behavior without having to go so far as to revoke supervision or to return an individual to court. Instead, intermediate sanctions acknowledge that community corrections officers possess more than the ability to either revoke or do nothing. This creates a continuum of responses from an officer that could include placing an individual on GPS that is not already sentenced to such a condition, or for supervisees already wearing GPS they could have their travel plans adjusted. With the spread of evidence-based practices has come an awareness of the value in officers also responding to positive supervisee behavior with a response that is pleasing to the supervisee such as extending their curfew 15 minutes or reducing the number of office visits. When trying to change or shape offender behavior, officers should apply a negative response (e.g., more restrictions) for undesired behavior and a positive response (e.g., less restrictions) for desired behaviors (on using positive reinforcement, see Gable and Gable, 2005). Electronic supervision technologies allow for officers to match negative or positive officer responses to similar supervisee behaviors when it is used in as an *intermediate response*. Agencies may consider developing a "matrix" that identifies appropriate officer responses with offender behaviors.

Crime Investigation

Often researchers discuss unanticipated negative consequences of an emerging technology (DeMichele, Payne, and Button, 2008), but sometimes there are positive unanticipated consequences as well. One such consequence is the ability of GPS data points to aid in criminal investigations. It is possible to determine if any supervisee under GPS tracking was in the location of a recent crime. This would allow agencies to determine if, for instance, a sex offender on GPS supervision was responsible for a new sex crime.

Electronic supervision technologies are still in the initial evaluation stages, so it is difficult to determine their effectiveness. We suggest keeping an open mind about electronic supervision technologies, and realize that all of these tools have specific strengths and concerns.

Treatment Enhancement

A Boston, Massachusetts area substance abuse treatment program for women has implemented electronic supervision as part of the program. The Suffolk County Women's Resource Center opened in January 2001 with a goal of maximizing opportunities for substance abuse treatment for female offenders and increasing their participation in education and life skills training. Only female offenders with substance abuse problems may participate in this program. Both public safety and offender accountability are the stated purposes of the program. A four-level system was developed for the program:

Level IV
24-Hour Restriction

Level III
Daily Accountability

Level II
Standard Supervision.

Level I
Financial Accountability.

Electronic supervision technologies are employed in Levels IV, III, and II as well as other supervision strategies including random drug and alcohol testing and community service. Additional services include classes in addiction education, life skills, parenting education, relapse prevention, introduction to 12-Steps, communicable disease prevention, victims of violence, healthy relationships, women's health, stress management, and GED preparation. Women may enter the program through referrals from Probation, Parole, and the Department of Corrections if the primary basis of their offenses is substance abuse. This program focuses on the gender-specific substance abuse treatment of female offenders but also addresses family, housing, health, relationships, education, and job training issues (Johnston, 2001).

These examples are meant to illustrate some of the variety of purposes, sponsorship, and approaches possible with electronic supervision technologies. As discussed in future chapters, each jurisdiction or agency must assess its own needs to develop electronic supervision strategies that meet local needs.

Specialized Caseloads

Electronic supervision tools can help in a number of specialized caseloads including drunk-drivers, domestic violence, and sex offender supervision. In the case of drunk-drivers, secure remote alcohol monitoring devices exist that allow for determining if an offender has consumed alcohol throughout the day. Domestic violence caseloads, especially at the pretrial phase, incorporate the use of GPS technology that allows for not only determining where the supervisee is going throughout his or her days, but victims can also be given a cell-phone or pager that will alert them if the supervisee

is in their area. Many laws have been passed recently to mandate various forms of location-tracking for sex offenders, with some of these laws requiring electronic monitoring for the life of the offender (Button et al., 2009). It is too early to definitively say whether sex offenders under GPS supervision have lower failure rates than those without an electronic monitoring condition (Padgett, Bales, and Blumberg, 2006). However, GPS does provide officers with a useful supervision tool to analyze behavior patterns.

PHASE OF SUPERVISION

Pretrial Supervision

Some agencies use electronic technologies for pretrial release of defendants into the community. In some cases, the technology is applied as an additional strategy with other methods (e.g., bail/bond, drug testing) for ensuring lawful behavior and return to court. Pretrial supervision is intended to provide the least punitive justice system response (suitable for each defendant's charged offense), and electronic monitoring seems to offer a viable alternative to keeping many offenders in jail.

A research study sponsored by the National Institute of Justice and conducted by Indiana University assessed the use of electronic supervision for pretrial defendants in Marion County (Indianapolis), Indiana. The defendants included in the study were those who otherwise would not have been released on their own recognizance or could not raise bail or secure a bondsman. Of those who did not qualify for release in these ways, fewer than 25 percent actually were released with electronic supervision. Some defendants were considered too great a risk to public safety or too likely to flee before trial to be released. In other cases, defendants may not have had "suitable residence with telephone" that was required for participation in electronic supervision.

The goal of this initiative was to ensure that defendants return to court for trial and also to relieve jail crowding. The most frequent charges made against defendants in the program were theft, DUI, forgery, burglary, habitual traffic offenses, disorderly conduct, and drug offenses. Seventy-three percent of defendants were supervised successfully with electronic technologies; 13 percent incurred technical violations; and 14 percent absconded. The researchers found that defendants most likely to complete the program successfully were those living with a spouse or significant other (Gowdy, 1993).

More recently, Erez and Ibarra (2007) found that victims are safer from domestic abusers who are supervised during pretrial with bilateral electronic monitoring devices. These devices create an exclusion zone around a victim's home and provide victims with a receiver that detects the same signals as the device worn by the offender. This system alerts a central monitoring center and the victim if the offender violates a geographic exclusion zone around the victim's residence.

Probation and Parole Supervision

Electronic supervision is most widely used with supervisees released to the community on probation or parole or as an alternative to incarceration. One community corrections program using electronic supervision is Project Spotlight in

Dallas, Texas. It is a joint project of the Dallas Police Department, the Dallas County Juvenile Department, and the Dallas County Community Supervision and Corrections Department. This program focuses on younger offenders between the ages of 14 and 24. It is limited to youth and young adults who have committed serious offenses, violent offenses, or both, and who live within a specific high-crime area. The three agencies involved have developed a team approach to supervision and have a community-based office located in a neighborhood storefront in the area where the program participants live. The program includes curfew restrictions, substance abuse evaluation and counseling, educational programs, and community service hours. Professional staff in the program supervise only 10 to 15 offenders on their caseloads, but they also work with family and community members. They have a minimum of five face-to-face contacts per week with the offenders they supervise. The primary purpose of the program is to improve public safety through enhanced supervision and reductions in crime. Electronic supervision is used by this program in several ways. It can be used as a sanction for an offender who violates curfew or other program conditions. Electronic technologies also are used to assist staff with their fieldwork. The program uses field monitoring devices (drive-by detection equipment) to determine if the youthful offenders are at home or if they are in parks, schools, and other gathering places for youth (Johnston, 2000).

The Alabama Department of Youth Services (DYS) began using electronic supervision technologies in 1993. The program has a two-fold purpose: to reduce the number of committed youth placed in DYS facilities and to reduce recidivism rates for youth who were diverted from placement. The targeted youth for this program are low-risk, nonviolent status and misdemeanor offenders. DYS funds and administers electronic supervision services for county juvenile probation departments. Juvenile probation officers select the youthful offenders that are supervised electronically. Criteria used for selection of youth include current and previous charges, home environment, family involvement, availability of a touch-tone phone in the home, and the probation officer's judgment about the potential success of the youth in the program. In most cases, without the availability of electronic supervision, the youth selected would be committed to DYS and placed outside their homes. Program administrators estimate that electronic supervision saved DYS about $700,000 in less than three years (Duke and Hassen, 2000).

Michigan also operates a statewide electronic supervision strategy for adult offenders including probationers, parolees, and community-based prisoners (living in correction centers or halfway houses). The program began in 1987, more than 100,000 offenders had been supervised electronically through April 2001, and about 3,000 offenders presently are supervised electronically. The Michigan Department of Corrections not only runs the supervision component, but it also operates its own monitoring center. This strategy provides a higher level of supervision of offenders, therefore enhancing the supervision process. At the same time, the Department of Corrections (DOC) has saved about three-fourths of the cost of sending these offenders to minimum-security facilities.

Furthermore, the department wants to enhance public safety with the use of electronic supervision, so it has developed guidelines for the offenders who may be selected for house arrest or "electronic tether." Prisoners must be eligible for custody in Michigan's lowest custody level facilities. Sex offenders and those with an extensive history of

assaultive behavior are not eligible for house arrest. Parolees often are placed on house arrest with electronic supervision when they commit technical parole violations. Offenders released from Michigan boot camps are placed on intensive parole or probation supervision, and usually electronic supervision is included. The DOC uses electronic technologies to monitor compliance with rules and to introduce structure and discipline into offenders' lives. An offender's profile determines specific restrictions such as where they may go, when they can be away from home, and with whom they may associate.

The department has a zero tolerance policy for rule violations, and if an offender cannot be accounted for, the monitoring center operator enters an escape warrant into the system that sends an administrative message to police agencies and the Absconder Recovery Unit. Program administrators feel electronic supervision is extremely effective because of the definite consequences for violations. Evaluation efforts indicate that fewer than eight percent of offenders escape or abscond, and fewer than three percent commit new felonies. After experiencing such dramatic success with the house arrest initiative, the Michigan legislature, in 2006, passed a bill that would establish electronic monitoring for convicted sex offenders through the Department of Corrections to allow for tracking offenders' movement and location, and document that information.

Re-entry

Returning offenders back to communities has become a major concern. In 2004 alone, more than 670,000 people were released from prisons in the United States, and an estimated nine million people were released from jails (Harrison and Beck, 2005).[1] Rates of failure among this population are high: approximately two out of every three people released from prisons in the United States are rearrested within three years of their release and more than 50 percent are returned to prison or jail (Langan and Levin, 2002). Offenders returning to the community face numerous obstacles, including finding employment, addressing substance abuse issues, locating housing, re-engaging with their families, and other aspects of citizenship (Petersilia, 2003). Three-fourths of released prisoners have a history of substance abuse, and at least 25 percent of prisoners suffer from mental illness. Electronic supervision technologies may be able to contribute to offender re-entry initiatives.

A group of Canadian researchers found that offenders wearing electronic monitoring devices were more likely to complete treatment. And, that these treatment completers were significantly less likely—than similar offenders not completing treatment—to violate conditions of their supervision (Bonta, Wallace-Capretta, and Rooney, 2000a, 2000b). This research is especially noteworthy when considering the purposes and goals of electronic monitoring tools. The Canadian study lends support to viewing conditions of supervision holistically, and realizing that electronic monitoring is a potentially powerful tool. In this case, offenders on electronic monitoring were more likely to complete treatment, and treatment completion was found to decrease offending behaviors. Electronic monitoring can provide additional motivation to offenders for them to remain compliant with supervision conditions and improve re-entry to the community.

1 The number of people released from state prisons each year has been steadily increasing—from slightly more than 600,000 in 2000 to more than 670,000 in 2004.

CONCLUSION

This chapter provided an overview of some of the terms and concepts used in this guidebook. A brief description of the evolution of electronic supervision was provided, and several examples of programs including an electronic supervision component were highlighted. These descriptions were provided as a means of illustrating a variety of ways in which electronic supervision may be used rather than as a prescription for program development. Each agency or jurisdiction must work to develop strategies that are appropriate for its needs.

2 ELECTRONIC SUPERVISION TOOLS: HOME ARREST UNITS, GPS, PROGRAMMED CONTACT SYSTEMS, AND REMOTE ALCOHOL MONITORING

There are many types of electronic supervision technologies available for community corrections officers to include in their supervision plans. This chapter focuses on several forms of electronic supervision, which include: house arrest units, GPS, programmed contact systems, and remote alcohol monitoring. The purpose of this chapter is to familiarize readers with some of these devices, what they can do, and how they should be used in the field. This is not an exhaustive explanation of all electronic supervision devices, but instead we focus on the more commonly used devices. Electronic supervision tools are relatively new to the community corrections field, and unfortunately there are limited and mixed research findings that leave administrators little direction as to the best policies and practices to institute when operating electronic supervision tools. Despite this lack of research, there are several small sample studies that lend support to how best to implement and operate electronic monitoring initiatives; they also include some evaluations completed by individual agencies. After completing this chapter, readers should be able to develop realistic expectations of electronic supervision tools, identify important issues to consider when developing RFPs and/or contracts, and identify potential limitations and unintended consequences.

Continuous Signaling House Arrest Devices

A common alternative to jail or a standalone sanction in many jurisdictions are house arrest orders that require someone to remain within a certain number of feet to their home. Enforcing these orders, prior to certain electronic supervision tools, became so time consuming that monitoring an offender all day was nearly impossible. Several experiments through the 1960s and 1970s, led to the development of the continuous signaling home arrest devices that rely on radio frequency transmissions. Continuously signaling devices require the offender to wear a battery-powered transmitting device that emits a radio frequency signal two or more times a minute. These are placed on the offender's wrist or ankle with a tamper-resistant strap, and they must be worn at all times.

Manufacturers have incorporated tamper-resistant and alert features in their transmitters. The technology for this varies, and many of the transmitters have more than one technology to detect tampering. Some tamper-resistant features work better than others. The importance of testing equipment thoroughly to determine its fallibility cannot be overemphasized. The risk level of the offenders in the program should determine the type of equipment used. Furthermore, frequent and close visual observation of the strap will detect even the most minor efforts to tamper and will avert future tampering efforts. This is an imperative procedure. Most transmitters in use today are quite small and light, ranging from less than one ounce to about four ounces. Depending on the brand, transmitter batteries can last from one to two years, and all current models indicate when battery power is getting low (Conway, 2001b).

A receiver is installed in the offender's home and is attached to a landline telephone. The receiver detects the transmitter's signals and conveys a message via telephone report to a central computer when it either stops receiving the radio frequency or the signal resumes again. Receivers can detect transmitter signals from a range of up to, and in some cases exceeding, 150 feet (80 meters) when installed in a typical home environment. The range on some systems can be programmed for individual offenders from as little as 35 feet (12 meters) to more than 500 feet (170 meters), depending on the type of equipment used. The range for any setting can vary significantly due to a variety of factors including location and building characteristics.

Receivers also have tamper-resistant features to avoid offenders removing or disabling them. They have battery back-up systems that can maintain operations from eight to 48 hours — depending on the type of unit — if electrical service is interrupted. Most units can also store data if power is depleted so that information can be retrieved from the unit later (Conway, 2001b).

Most agencies require the offender to have telephone service to use a continuously signaling monitoring system so the agency can receive violation notifications on a "real time" basis. Some may use the systems without telephone line access and require the offender to bring the receiver in each time they report so the monitoring data it stores can be downloaded and processed to determine whether or not the offender remained compliant since the last time he or she reported. There are several telephone services that may interfere with the operation of the system. Call forwarding and call waiting should always be disabled to avert offender manipulation of the system. Depending on the particular receiver in use, cordless phones, cellular phones, answering machines, and call blocking may need to be restricted (Conway, 2001b).

The central computer is programmed with the offender's schedule, and this is compared to messages transmitted from the receiver in the offender's home. For example, if an offender is authorized to leave for work at 8:00 a.m. and return at 5:30 p.m., the receiver would transmit the information that the signal did not detect when the offender leaves its range at 8:00 a.m. and would again transmit a message when the signal is detected as the offender returns at 5:30 p.m. If the signal is lost during a curfew period or resumes at a time when the offender is prohibited from being in the home, the computer generates a report that alerts the monitoring staff of the discrepancy. The monitoring staff would then follow

predetermined procedures to ascertain the reason for the alert.

The continuous signaling radio frequency devices can be a useful supervision tool, especially as it provides officers with additional control over an offender's life. Jails and prisons are designed to take a person's time, so to speak, and that is similar to what happens to a person on house arrest. Although supervisees on house arrest are most likely more comfortable than those institutionalized, these individuals nonetheless have some of their freedom taken away from them. House arrest provides an alternative to incarceration, and can potentially provide an effective strategy for keeping certain offenders in the community during pretrial, as part of probation, or as part of an early release policy. Continuous signaling devices give officers some confidence that offenders are accountable for following their supervision conditions. Obviously, however, there are some weaknesses with using this equipment, namely that they do not tell you anything about what the supervisee is doing when he or she is away from their home. They may leave their home at the correct time for work or treatment, but they may not show up, and depending on the level of community between these services and the officer, it could be a couple of weeks before this is detected. For this reason, the technological community developed field monitoring units.

Mobile Monitoring Devices

Mobile monitoring devices or "drive by" units are another type of continuous signaling technology. Probation or parole officers or other authorities use a portable device that can be hand held or used in a vehicle with a roof-mounted antenna. When within 200 (67 meters) to 800 feet (267 meters) of an offender's ankle or wrist transmitter — and sometimes more than 1,000 feet (333 meters) depending on the location and the use of special antennas — the portable device can detect the radio signals of the transmitter. It can also determine the tamper status and battery status of the transmitter. Officers can conduct field surveillance of offenders even when they are away from the receiver units in their homes. The device is especially useful to verify the offender's attendance at 12-step meetings and school, at work sites, and presence at other public or confidential locations. Further, the mobile monitoring device can alert surveillance personnel that an offender is in an unauthorized location. One probation officer found one of his clients, who should have been at work, was on a golf course the officer happened to drive by.

Most mobile monitoring devices display the transmitter number of the offender detected, although some models have only an audible verification of a transmitter, and some display the name of the offender. Mobile monitoring devices operate with an internal battery. Most batteries are rechargeable by plugging the unit into a regular power outlet. Some include adapters to run from a car battery. Internal battery life can range from about four to 12 hours, depending on the unit, and most batteries also can be recharged in the vehicle. Most units can store messages about the transmitters it detects for future downloading and reporting. The mobile monitoring devices are especially useful in cases of violations or suspected violations to confirm an offender's presence or absence at a location (Conway, 2001b; NLECTC, 1999). They also are used in sweep operations. Some agencies use them in their offices to alert the agencies when offenders come in to report or to pay fees.

Combining the mobile monitoring and house arrest units, agencies identified their need to know where offenders are at specified times, besides knowing whether they are at home or not at home. The mobile monitoring units are an added benefit to the continuous signaling devices, but they require significant officer time to conduct drive-bys and they still provide limited location information.

Location Tracking Systems

A major reason for revising this book is due to the accelerated growth in the use of GPS to monitor offenders, especially sex offenders. There have been some horrific sexually related offenses, usually perpetrated against children that incited the public and led major campaigns to become more restrictive with sex offenders. One of the first sex offender GPS laws was passed in Florida, in 2005, following the brutal killing of Jessica Lunsford. The Florida law required lifetime GPS monitoring after a long prison term for adults convicted of certain sexual related crimes against a child. Since 2005, many laws have been passed at the local, state, and federal levels requiring some amount of GPS monitoring for sex offenders (Button, DeMichele, and Payne, 2007). It appears that GPS monitoring can be a valuable tool for officers supervising sex offenders, but there are many issues that could cause the GPS component to be improperly implemented and operated. This section will provide readers with basic information about how GPS technologies work, which is intended merely to give officers an understanding of how the equipment relates to supervision (for a more thorough technological discussion, see Brown, McCabe, and Welford, 2007).

Location Tracking: How it Works

Recent technological developments provide the ability to track an offender's movements and location in near real time. GPS relies on 24 satellites that orbit the earth thousands of miles away. These satellites were originally designed by the U.S. military for navigation, mapping, and weapons delivery purposes. However, they are now used in a variety of nonmilitary applications including personal car and boat navigation and electronic supervision of offenders (Rosica, 2000).

The common hardware for this system consists of a radio frequency transmitter worn by the offender, a portable GPS tracking device that the offender must carry or be near at all times, and a charging unit for the GPS device (Renzema, 2000a). The battery-operated transmitter is small (about the size of a watch or small pager), light weight (about two to four ounces), and is usually worn on the offender's ankle. The radio frequency transmitter communicates with a receiver in the GPS tracking unit to ensure that the offender is near the GPS tracker at all times. If the offender "forgets" to take the GPS tracker with him or her on their way to work or anywhere else, for instance, then an alert message will be sent to an officer or monitoring center. As with other types of electronic supervision devices, the transmitter has built-in tamper-resistant features to avert the offender from removing the transmitter and will send an alert if he or she does interfere with it.

Batteries can last from one to three years before replacement for the radio frequency anklet. The transmitter emits a radio signal two or more times a minute that is received by the portable GPS tracking device. In an open unobstructed area, the transmitter can send signals to the portable tracking device as much as 100 to 150 feet (33 to 50 meters) away. However, the range can be programmed on some models ranging from 35 to 150 feet (12 to 50 meters) (Conway, 2001b). The portable tracking device carried by the offender is also battery-powered and must be recharged regularly — currently, usually every 16 to 24 hours. The charging unit for the portable tracking device is placed in the offender's home and uses household electricity. It takes about five hours for the battery to fully recharge (Conway, 2001b).

If the GPS tracking device no longer receives a signal from the transmitter, it sends an alert to notify the monitoring center. The GPS tracking device must be within range of the offender's transmitter at all times to track the offender. (Some agencies allow the offender to go out of range of the transmitter while at work, depending on their work environment, responsibilities, and the reasonable assurance of their continuous presence at their work site during working hours.)

The offender carries the GPS receiver by hand, with a shoulder strap, or worn around the waist. The portable tracking device contains several types of technology: a receiver that detects signals from the transmitter, the GPS signal receiver, a computer, and cellular telephone circuits (Renzema, 2000a, 2000b). The radio receiver, like the stationary ones used in traditional house arrest systems, simply detects whether the transmitter worn by the offender is within range of the GPS receiver. The GPS unit receives constant signals from several of the satellites. Receivers detect signals from the satellites that allow for calculating the exact time the signal is sent and the identity of the satellite sending the signal.[2] This information is processed to determine the person's location. The cellular phone system in the portable tracking device can then communicate information about the person's location to the central monitoring system, and there are some systems, although little used so far, that rely on cable communications (Brown, McCabe, and Welford, 2007). The computer in the portable tracking device continually stores the information about the offender's location. These systems use mapping technology to track the offender's actual movements throughout the day by downloading the information from the receiver's computer. Downloading and studying data about the offender's movements can provide information about his or her activities. It can be especially useful to determine whether an offender may have been near the location of illicit activity at a given time. Some offenders have been cleared of criminal involvement because their location tracking systems showed they could not have been in the area where the crime was committed at the time it occurred.

Most location tracking systems communicate through cellular phone technology, and one of the pitfalls of cellular telephones is "dead spots." This means that offenders will momentarily not be tracked in near real time. If this occurs, the GPS tracking unit continues to store information about the offender's location. Although the information can be retrieved, it cannot be reported until the portable tracking device is out of the problem area. Users should test the equipment in their locality to know where the dead spots are (Renzema, 2000b).

2 It is important to note that several manufacturers have developed one-piece GPS units that are quickly replacing many of the two-piece models. Agencies considering implementing GPS should consider which type of unit best meets their needs.

Using a GPS system, criminal justice professionals can determine inclusion and exclusion zones for each offender. Exclusion zones are areas the offender is not permitted to go, such as parks and schools for a pedophile, a former partner's home or place of employment for a domestic batterer, or bars for an alcoholic. Depending on the brand of equipment used, exclusion zones can range from a 300 (91 meters) to 2,000 foot (610 meters) radius,[3] and from 20 to an unlimited number of exclusion zones can be selected for each offender. Inclusion zones are areas the offender is expected to be at various times, such as his workplace during the day and home at night. Depending on the equipment used, the number of inclusion zones can range from 100 to an unlimited number, and the size of inclusion zones is unlimited (Conway, 2001b). The inclusion and exclusion zones are entered by using mapping software that usually requires only entering the address or pointing to the location on a computer map. The computer can be programmed to send an alert any time the offender enters an exclusion zone or leaves an inclusion zone at the wrong time. If an alert registers, it is then possible to follow the offender's movements to determine whether he is clearly violating his restrictions or has accidentally gone in the wrong zone temporarily. Real time tracking can allow law enforcement to be dispatched to the offender's exact location.

GPS vendors typically are contracted to act as a central monitoring agency that first receives and then sends any alert notifications to a designated officer. The central monitoring agency is made aware of the offender's travel schedule. The GPS system includes specific software that allows officers to create exclusion and inclusion zones to make an offender a detailed travel plan. Officers can access the secure webpage (i.e., password protected) to see where supervisees are at any particular time. There tends to be a common misperception among the public that GPS monitoring is something similar to a NASA control station filled with monitors and officers constantly reviewing each offender. Agencies should discuss the role the monitoring agency will have in the GPS monitoring as some monitoring centers will investigate alerts to confirm that it is not a false alert, whereas others do not offer this service. Reporting procedures can be negotiated before implementation of GPS monitoring.

Location tracking systems are usually most appropriate for higher-risk offenders. Some jurisdictions utilize GPS tracking for sex offenders, pretrial domestic violence offenders, gang members, burglars, and others exiting prison before the end of their sentence. Location tracking systems also can be used for offenders who do not have the household telephone service needed for continuously signaling technologies. Because of the cellular phone system used with location tracking systems, they can sometimes be used in remote rural areas (Renzema, 2000b).

Global positioning systems also generate a significant amount of information, because it is possible to track the location of the offender continuously. This increases the work for staff to review the information produced and to respond to any infractions found, thus potentially increasing the cost. In fact, increased workload is one of the most pressing issues confronting the use of GPS monitoring. This topic is covered more fully in later chapters, but it is important to note that agencies should reduce GPS caseloads so that officers can maximize any potential benefits from location tracking.

3 This is not to suggest that exclusion or inclusion zones are limited to being circular in shape as some software enables establishing such zones as polygons and other non-circular shapes.

Table 2a. How Global Positioning Systems Work

GPS is a worldwide radio-navigation system. The 24 satellites orbit Earth every 12 hours at 11,000 nautical miles above Earth. The satellites are positioned so that signals can be received from six of them at any given place on Earth at nearly any time. Each satellite is equipped with a precise clock, and the satellites emit radio signals encoded with precise time messages and their positions in orbit; these signals travel at the speed of light. The location of each satellite is tracked and monitored by ground control stations.

The receiver carried by the offender contains several channels to receive messages from different satellites and computer circuitry that detects, decodes, and processes GPS satellite signals. Each location on Earth has already been mapped based on the distance of the satellites from those positions at various times. Thus, the location of the receiver on Earth can be calculated by how long it takes the radio signals from the satellites to reach the receiver, the positions of the satellites at a particular time, and where the signals from four satellites intersect simultaneously at the receiver. The receiver's position can be plotted accurately to within a few feet.

(Renzema, 1998; Trimble Navigation Limited, 2001)

Remember that GPS surveillance is not an automated form of supervision. Rather, GPS is an additional tool that relies upon "well-trained" and discerning officers who vigorously review data points and have a good understanding of the differences between alerts caused by system error and those caused by offender non-compliance. GPS monitoring comes with many unanticipated negative consequences that can, in the end, cause agencies several problems that manufacturers may not reveal prior to contracting.

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Location Tracking: Active, Passive, and Hybrid Reporting

Electronic monitoring has moved from merely controlling someone's time at home to location tracking. GPS tracking can provide important information for officers to understand where an offender is in their re-offense cycle. By analyzing where someone is going and how long he or she is remaining at that location an officer can confirm or deny offender reports. If, for instance, an offender claims to have been working overtime when he or she was to report for an office visit but the GPS tracker has them placed somewhere else, an officer gains important insight into the offender's likelihood of reoffending. That is, not only may this information let an officer know why the offender missed a visit, but it also tells the officer the level of truthfulness to expect from the offender as well as their sincerity in moving toward behavior change. There has been a lot of discussion about how GPS communicates with satellites in space to calculate a close approximation of an offender, but little detail has been offered about how officers receive location and alert information. These are the ways that GPS location data is communicated to a monitoring station:

- *Passive GPS Monitoring*: These types of systems relay the location data to a monitoring center usually once a day. Passive systems require an offender to have a docking station that is connected to a landline telephone. The docking station usually doubles as a charger as well, so that when the receiver is being charged it is also sending the location points for the entire day to a monitoring center. If any alerts are detected, an officer can usually take action within 24 to 48 hours of the event.

- *Active GPS Monitoring*: These types of systems rely upon cellular telephone technology to relay alert information in near-real time. Near-real time is an important qualifier here because it takes a variable amount of time for the GPS receiver to send the location points through a cellular phone. Most vendors allow agencies that contract with them to make reporting decisions based on each client, with normal time delays ranging from one to five minutes.

- *Hybrid GPS Monitoring*: This is the newest type of GPS that combines both passive and active monitoring capabilities. Hybrid systems differ from active units in that they are programmed to report data at much longer time intervals such as every few hours or two to three times a day. Once an alert is detected the system acts just like an active system and reports data in near-real time using cellular communications.

There are many concerns and strengths related to GPS supervision that are related to the nature of the technology, laws, and organizational capabilities. Community corrections agencies considering implementing GPS monitoring should ask several questions pertaining to their specific needs such as:

1. Do the units report data in active, passive, or hybrid fashion?
2. Are the units one or two piece(s)?
3. How is the information received and analyzed (i.e., vendor, third-party, or internal)?
4. What are the expectations and procedures for sharing location data?
5. How will officers respond to specific types of non-compliance?

These devices come with several strengths but they do not eliminate or reduce the human element needed in offender supervision.

Community supervision is a human-intensive occupation requiring community corrections officers to have direct contact with many offenders.

As these technologies continue to develop, new questions and concerns will arise. It is essential for agencies to realize that GPS is another tool that may enhance supervision, but this enhancement requires serious dedication on the part of any agency. These devices come with several strengths but *they do not eliminate or reduce the human element needed in offender supervision*. Community supervision is a human-intensive occupation requiring community corrections officers to have direct contact with many offenders. GPS capabilities do not render a sex offender—or any other offender type, for that matter—incapable to commit a crime or to violate release conditions. Incorporating GPS devices into a supervision plan allows for recording and analyzing offender location patterns to uncover the potential for violation or to recognize that an offender is actively participating in their supervision. Location data reports can also be important to law enforcement when enforcing residency restrictions and by providing an investigative resource that tracks an offender's whereabouts.

Limitations of GPS

As with the development of any new technology, there are going to be specific equipment limitations, so agencies should be careful to identify their specific needs for electronic supervision before adopting any particular technology. The following discussion pertains to limitations related to GPS, which include urban canyons, inside buildings, thrown data points, weather interruptions, concerns with public transportation, cell phone dead zones, and battery issues. The bulk of these issues are related to the need for GPS satellites to have a clear path for GPS tracking units to receive the satellite signal.

- ***Urban and rural issues:*** One drawback to GPS technologies is their inability to maintain continuous signals from both GPS satellites and cellular communications to report data (for active systems especially). Some urban agencies may lose signals when offenders are in areas with a high concentration of large buildings or subways. Typically, however, GPS signals may not be lost per se, but they often bounce off one or more buildings before arriving at a receiver. This multipath effect delays the signal's arrival time causing location inaccuracies. This contrasts with the problem that many rural agencies have with lost cellular communications in remote parts of

their communities. Rural areas need to give cellular communications capabilities serious thought before selecting a GPS vendor. It might be that there is little that any particular GPS vendor can do to overcome these geographical issues, but agencies should be aware of the potential for these problems, discuss them with any potential vendors, and be realistic about what can be expected from this technology.

- ***Inside buildings:*** A similar shortcoming of GPS technologies is that in some cases, the GPS signals may be shielded by a variety of building materials, including steel, concrete, and many common roofing products.

For example, when the offender is inside buildings, especially in basement areas, the signals may be blocked. Most systems send an alert when this occurs, and the GPS tracking device can still detect and transmit signals from the transmitter. As is the case with geographical false alerts, dwelling false alerts also require investigating the alert to determine if it is a false alert. Agencies should discuss all alert-processing practices with the monitoring agency before selecting a particular vendor to reduce (as much as possible) officer workload).

- ***Thrown points/drift:*** There are times when location data point errors will occur. These technologies are not error free and sometimes they record incorrect location points. This is known as thrown points or drift. What causes drift? Drift is a caused multipath effect often resulting from highly reflective surfaces such as glass buildings and large bodies of water. Agencies in areas with large reflective surfaces should train staff as to what thrown points look like.
- ***Interruption from snow and heavy rain:*** It is possible that inclement weather can also cause interruption in some GPS devices by preventing satellite and receiver communications.
- ***Commuting:*** Certain forms of public transportation (e.g., subways, railcars) can also interfere with GPS and cellular technologies. Here again, officers should know of all times that offenders are out of signal reach.
- ***Battery issues:*** There are several potential problems related to battery issues. The battery life of a tracking device can vary greatly. Although many manufactures may boast of their batteries lasting 36 hours (or more), this may be under ideal conditions, with the device using minimal power. In real life conditions where offenders are constantly in motion and generating frequent alerts, the time between charges can diminish significantly. It is also important to remember that older batteries become less efficient and do not hold a charge as long as new ones.

GPS Technological Limitations: Offenders Must Comply

GPS devices for offenders are similar to all other technologies in that they do not come free of drawbacks or weaknesses. Obviously, there are many ways that these tools can fail—by losing a GPS signal, recording incorrect points, or losing cellular connection—and officers should be aware of these potential shortcomings. Officers should be careful about informing offenders about the problems with GPS as some individuals may try to manipulate this information. The burden is placed on the offender to limit the amount of time that they spend in any area in which the GPS cannot function properly. In certain situations, officers may approve certain time spent in dead zones, such as an offender that works in the basement of a building or an individual that drives through a rural area on their way home from work. Of

course, these adjustments are based on an assessment of the individual offender. Remember that community supervision is a privilege, not a right, and offenders should be made fully aware of the expectations for their role in the monitoring process. Once offenders are informed of how the equipment works at an initial orientation, officers can hold them accountable for non-compliance.

Officer concerns

The technological limitations of GPS monitoring create organizational problems mostly related to legal issues (which are covered in Chapter 5) and workload issues. Increased officer workload should be expected when implementing GPS monitoring. With many states calling for either lifetime sentences on GPS or long GPS sentences for sex offenders, the number of sex offenders on a typical probation or parole officer caseload will likely increase. It is not just a higher number of offenders that increases workload, but the technological problems mentioned above also increase officer workload. Consider some of the time-consuming reports that can be made with GPS monitoring, with the most common including:

- Low battery
- Lost signal due to tall buildings or other obstructions
- Areas (usually rural) with limited cellular connection
- Broken equipment
- Incorrect tamper warning
- Incorrect zone violation

False alerts can be particularly troublesome for officers that respond to GPS alerts in their jurisdictions. On the one hand, depending on the jurisdiction, the particular offender, and the nature of the alert, official response may range from sending a simple text message instructing the offender to move out of an urban area or to charge their GPS receiver. And, on the other hand, official response may involve multi-agency action including law enforcement and community corrections officials to locate, investigate, and potentially apprehend the offender. GPS monitoring increases workload for officers who must:

- Be responsible to fit offenders with units
- Be responsible to explain to offenders how the equipment works
- Be responsible to connect a charger in the offender's home
- Be responsible for equipment maintenance, procurement, inventory, and replacement

GPS monitoring requires close supervision on the part of the community corrections officer, and these conditions create a situation in which officers tend to spend more time with offenders placed on GPS than offenders without such conditions. It is not so much that officers are always spending more time with offenders on GPS, but they also must spend

considerable time analyzing the data points to translate the geographical code into conduct. GPS officer workload should be constantly monitored to make sure that officers are not given more work than there is time to appropriately complete. In fact, agencies should recognize that monitoring electronic supervision equipment may be more time consuming than when it is not included, and these officers should have reduced caseloads.

Programmed Contact Systems

Devices that determine whether a person is at an assigned location are some of the most widely used types of electronic supervision tools. However, they do not all work alike. Indeed, there are a wide variety of technologies involved. Programmed contact systems use various methods to contact and verify the location of a supervisee in his or her home or in multiple locations. They may be used with offenders who are placed on home monitoring and must stay at home virtually at all times, or they may be used for supervisees who are restricted to their homes at various times (e.g., have curfews) but can come and go for approved activities.

Programmed contact systems are automated calling systems. The backbone of these systems is a central computer that either receives telephone calls from or makes calls to the offender in one or more locations. The calls may be made either on a scheduled or random timetable, or both scheduled and random calls can be made (Conway, 2001a).

Computer-generated calling systems are those in which the central computer makes telephone calls to the supervisee's number(s) at scheduled or random times. The supervisee is expected to answer the calls according to a predetermined record of where he or she is to be at given times. Usually, these calls come to the offender's home to ascertain that he or she is at home when required. Random calls can be generated at any time of the day or night to ensure the offender is at home when expected to be and not at home when expected to be at work, treatment, or other obligations. Several systems have the ability to generate calls to other locations or to multiple telephone numbers — for example, to ensure the offender's presence at work (Renzema, 1992).

Call-in systems require the supervisee to call the central computer either at scheduled times or when he or she is signaled to call based on random notification generated by a computer during designated curfew hours. Signals may be received through pagers or similar devices worn by the offender. When the offender calls in, the computer verifies the telephone number from which he or she is calling and compares it to the approved number(s) from which the offender may call at that time or stores it for subsequent review and location determination (Conway, 2001a).

The most reliable voice verification systems have calls generated to the offender from a central computer system. This keeps the offenders from defeating the system by using call forwarding and conference calling features that allow them to call from virtually anywhere, even though it appears they are calling from their scheduled location. For systems that require the offender to call in at random or scheduled times, agencies should mandate a procedure whereby the offender is immediately called back from the central computer.

All of the automated calling systems include some type of technology to verify that the person responding to the computer is really the offender. Three basic types of verification technology are used (Conway, 2001a).

Voice Verification

With these systems, the supervisee either receives a call from the computer or is signaled to call in. Individuals have unique voice prints just as they have distinctive fingerprints. A voice template is recorded during system enrollment and used for a computerized comparison with future calls. These systems are designed to process the voice sample from any telephone to the centralized computer where it is compared to the original template (Conway, 2001a).

Video Verification

Using a camera installed in the offender's home, a picture is transmitted to the central computer and compared with a photograph on file (Conway, 2001a). There is no doubt that placing video cameras in offenders' homes may prove to be an expensive alternative as well as presenting unique challenges.

Device Verification

Some systems require that the offender wear a tamper-resistant device, usually on his or her wrist or ankle. When calling in or responding to calls from the central computer, the offender is required to activate the device which then transmits a unique code for that offender over the telephone. The code is then verified by the computer (Conway, 2001a).

Fees for programmed contact systems are often based on the number of contacts per day or week and, therefore, can be relatively inexpensive, especially if they do not require any equipment to be placed in the offender's home. The offender must have access to a telephone to be able to use a programmed contact system, and a telephone is the only type of equipment necessary for offenders to use a voice verification system. However, both video verification and device verification require additional equipment that is either placed in the offender's home or worn by the offender.

The enrollment process is usually quick and simple. Programmed contact is often used as an intermediate sanction for lower-risk offenders, such as short-term detention or curfew monitoring. It can also be useful for an intermediate form of supervision following more highly structured and restrictive types of monitoring. For the offender and his or her family, these systems can be quite intrusive.

Electronic technology uses the telephone in the home to communicate information to a central monitoring station. When information needs to be transmitted, most systems will warn persons in the home if they are using the telephone and the phone line needs to be clear. Some systems may seize the line. In any case, others living in the home should be made fully aware of how the system operates and that they may be inconvenienced periodically. Phone lines should be free of advanced calling features such as call waiting and call forwarding. Computers and answering machines are also usually prohibited. Some offenders choose to install a second phone line for monitoring as a means to ensure the line remains

open and complies with restrictions. Systems that randomly signal the offender to call in can be disruptive, especially when calls occur during the night (Renzema, 1989, 1992).

Group Monitoring Units

Sometimes programs will want to supervise several offenders in the same location using electronic technology. This might be appropriate for tasks such as verifying attendance of multiple offenders in a day-reporting program or monitoring offenders confined in a residential group setting. Each offender in a group setting wears a transmitter, and all transmitters are monitored by one group monitoring unit, much like a field monitoring device. The group monitoring unit reports an exception when an offender's transmitter signal is not picked up (i.e., the offender has left the area) or when an offender attempts to tamper with the transmitter. Additional information is received and stored by the group monitoring unit that can be downloaded to a computer to generate reports at a later time.

Remote Alcohol Detection Devices

The use of alcohol and other drugs and criminal behavior are strongly linked. Courts and criminal justice agencies usually try to monitor and limit the use of mood altering chemicals by pretrial defendants and convicted offenders. Courts may prohibit the use of alcohol and other drugs as a condition of community release, and agencies often monitor use through alcohol and drug testing. Technology now exists to conduct alcohol testing from remote locations — without the offender and agency staff having to be in the same place. Remote alcohol detection systems have five basic technological components:

- A means of engaging the offender to take the test. (With some systems, tests are invoked during normal operating of the equipment and the offender may not be aware of when a test is underway).
- A process for identifying the person taking the test as the correct offender.
- Technology to detect or measure alcohol use.
- Security measures.
- Communications and reporting.

Notification to Take a Test

Remote alcohol testing can be used as a standalone technology, or it can be combined with other technologies used to supervise the offender. Most systems require equipment that is placed in the offender's home, and he or she is engaged to take the test by an automated phone call or a beeper. If the offender is also being supervised with other equipment (e.g., for curfew monitoring), then that equipment may transmit a message when a test is required. Testing should be done on a random basis so the offender does not discern a pattern and schedule his or her drinking accordingly. Sometimes a combination of random and scheduled testing is used, so that the offender is tested whenever he or she returns home and then randomly during times he or she is staying at home (National Law Enforcement and Corrections Technology Center [NLECTC], 1999).

Identification of the Person Taking the Test

Most remote alcohol testing devices are equipped with a technology to ensure that the person taking the test is the offender. This has to be considered carefully to avoid having someone else take the test for the offender. Some technologies use an image transmission device so the offender must stand at the alcohol testing equipment and transmit his or her picture while taking the test (NLECTC, 1999). In most visual systems, a reference picture appears at the monitoring center with the test picture to accurately verify the identity of the offender. Voice verification is another technology used to ensure the identity of the person taking the test. One system combines voice verification with an internal proximity sensor to ensure the device remains over the offender's mouth during testing (Conway, 2001a).

Using identification techniques is vital to ensuring the most reliable test possible. However, some of these techniques require human review and, therefore, are subject to human error. Techniques that use automated verification processes also can be subject to small margins of error in measurement or mechanical difficulties. Voice verification systems are particularly vulnerable if the subject is intoxicated. Most systems that use voice identification will proceed with alcohol testing even if the subject fails to verify his or her identity. Some of these systems can record and store all calls so that a corrections professional can listen to calls at his or her convenience and make a determination as to whether a person sounds as if they are under the influence of alcohol or drugs.

All breath alcohol equipment should be tested thoroughly by agencies prior to deciding what type of equipment to use. Efforts should be made to falsify identification so agency staff are fully aware of the weaknesses in the equipment. Using identification techniques is vital to deter test subject imposters and to ensure the most reliable tests possible.

Technology to Detect Alcohol Use

The equipment used for remote alcohol testing can either indicate that alcohol is present or it can measure the participant's actual breath alcohol level, which is basically the same as a blood alcohol level as measured by a breathalyzer. These units can provide an accurate breath alcohol content reading.

When taking the test, the offender must blow into the device for a long enough period so that deep lung air is expelled. This allows for accurate testing of blood alcohol content. Breath alcohol testing devices use different forms of cells to measure the presence or absence of alcohol on the breath. It is important to ascertain what type of cell device is used and its certification by the Department of Transportation (DOT) as a determination of reliability for such use. The most common cells in use are either the Toguchi (T) Cell or the Fuel Cell, with the latter typically being accepted as the most reliable and qualified under the DOT certification.

All breath alcohol testing devices require some form of scheduled calibration procedure to be considered reliable. This calibration can vary from a wet solution to a compressed gas application, and the method should be determined by the required frequency of such a procedure and the method used to meet this requirement.

Another technology records a voice sample and uses software to match it against a prerecorded sample. Intoxication changes some aspects of voice quality which are noted during the comparison. Yet another method employs the use of a carbon sensor device in a telephone receiver (Conway, 2001a).

Security Measures

Systems for remote alcohol testing should have tamper-resistant features to ensure the integrity of the tests and results. Besides the features mentioned previously to ensure that the person taking the test is the appropriate offender, other tamper-resistant features may be needed in some cases. These may include tamper-evident components in the hardware (e.g., evidence that the unit has been opened) and automatic processes requiring second tests and verification if results are questionable.

Communications and Reporting

The results of remote alcohol tests are transmitted via telephone lines and processed through computers at the monitoring center. If the test registers alcohol content, at least two additional tests should be requested to ensure a valid positive test. Fifteen minutes should be allowed to elapse between each of these two tests. If, in fact, alcohol was not used, testing in this manner ensures the causes of a positive result will dissipate within 15 minutes should the offender claim that food, mouthwash, or some other substance resulted in a positive alcohol content result. This allows the person reviewing the test to determine accurately whether or not the offender was consuming alcohol. This also minimizes the games offenders may play about using, or not using, alcohol. When a positive test result is reported to the agency, corrections professionals will be confident the test was indeed positive. Final results are then transmitted to the staff supervising the offender. In the case of negative results (no alcohol use), these may be accumulated and transmitted on a scheduled basis, such as daily, weekly, or monthly. For positive results, monitoring centers transmit the results as directed by the agency. They can be transmitted immediately, or on the next business day, depending on how the agency plans to use the results. Some agencies, upon receiving notification of a positive test, will go immediately to the offender's home and administer a field sobriety test to verify the remote testing results. As alcohol stays in one's system only a few hours, if this approach is used, it is best to have staff available to respond on a 24-hour-aday basis, but resources may only allow for such a response in select situations.

Continuous Remote Alcohol Monitoring

For some offenders it is important for community corrections officers to be able to remotely and continuously measure whether or not certain offenders are drinking alcohol. Technology exists to securely, continuously, and remotely measure the relative levels of one's alcohol consumption—and to detect attempts to sabotage alcohol readings. This technology is a *tool* with the potential to assist community corrections officers with effectively monitoring offenders' alcohol consumption. This technology utilizes a lightweight ankle bracelet that captures alcohol readings from continuous samples of vaporous or insensible perspiration collected from the air above the skin. These alcohol readings are non-invasive and determine if an offender has consumed alcohol and, if so, approximately how much alcohol was

consumed. This technology enables for a near-instantaneous detection of court-ordered abstinence violations, and provides continuous remote alcohol readings reported to a central monitoring agency.

The caution implied here is for agencies to avoid adopting electronic supervision tools just for their own sake, instead of identifying genuine supervision and/or budgetary needs that could be enhanced through such tools.

Strategies for success

APPA is a firm believer that electronic supervision tools can provide community corrections agencies with cost-effective alternatives to officer-offender interactions. This is not to suggest that officers no longer engage in face-to-face interactions with offenders, because that is a crucial element of community supervision and one feature that distinguishes the field from other justice-related organizations. It is important for agencies to be aware of several issues to improve their experience with electronic supervision tools. Some of these issues include understanding how to make a strong request for proposals (RFP) from vendors, both to provide services and cover several important issues in contracts. One important set of questions relates to the issue of how offender information will be stored and transferred, and how alerts will be verified and reported. These are issues that could greatly effect any agency's workload requirements.

Another strategy to utilize electronic supervision tools effectively is to conduct a thorough (and objective) organizational needs assessment. This will enable agencies to determine what their true needs are for electronic supervision tools, and some agencies may find that they do not need any electronic supervision tools. Others, however, may realize that their agency could benefit greatly from placing certain low-risk offenders on automated programmed contact or kiosk reporting, and they may have a need to incorporate active GPS reporting with high-risk sex offenders. It could be that an agency determines that it would be more cost-effective (without reducing public safety) to incorporate secure remote alcohol monitoring for a special domestic violence caseload. The technological community has attempted to make several electronic supervision tools that agencies may find beneficial. The caution implied here is for agencies to avoid adopting electronic supervision tools just for their own sake, instead of identifying genuine supervision and/or budgetary needs that could be enhanced through such tools.

The organizational needs assessment should also consider workload and budgetary considerations related to initial and ongoing staff training. For any electronic supervision component to be successful, staff will need training continually. Similar to other technologies, these systems may intimidate some staff members who are not that technologically savvy. Furthermore, for any tool or program element to be implemented properly and consistently, training is necessary (see Fixsen, Naoom, Blasé, Friedman, and Wallace, 2004). Institutionalizing standardized practices through training will increase the likelihood of agency satisfaction with the technology, as well as allowing for more accurate evaluation. A central concern with conducting a thorough evaluation is consistency of data and incorporating training and evaluation criteria before implementing the use of any electronic supervision technology which will make for more accurate evaluations.

CONCLUSION

This chapter provided a brief overview of several types of electronic supervision technologies. Traditional continuous signal radio frequency house arrest models were described along with the related field monitoring systems. These systems work well to provide information about whether an offender is (or is not) in a particular location at a certain time. However, agencies may find that—and legislative changes are mandating—GPS location tracking of many high-risk offenders, namely gang members, domestic violence offenders, and sex offenders is much more labor intensive. GPS, as with all electronic supervision technologies, should only be incorporated into any agency's program options after conducting a thorough organizational needs assessment to determine the efficacy and feasibility of such an investment. GPS monitoring can provide an added layer of surveillance over offenders, but it is also accompanied by several weaknesses. A primary concern when creating GPS caseloads is the amount of work placed on each officer, especially since these tend to be the high-risk or specialized caseloads, which raises the amount of officer attention required per offender.

Programmed contact systems are also a viable alternative for agencies, especially those with a large banked or administrative caseload. These systems are reporting methods only and should only be used with offenders presenting little potential risk. This technology attempts to monitor house arrest or curfew conditions by calling offenders at various times and places by using either voice pattern analysis or visual feed for identity verification. Programmed contact systems were bolstered with systems that allow for remote alcohol monitoring. A typical condition of supervision is alcohol abstinence, which is difficult for officers to enforce without conducting a urinalysis. The programmed contact systems were enhanced with breathalyzer-like machines to detect the presence and amount of alcohol and to report any attempts to bypass the system (e.g., not providing a deep lung air sample). The final technological adaptation is the development of a continuous remote alcohol monitoring bracelet with a tamper-resistant strap. These systems combine radio frequency technology with remote alcohol skin tests to report to a central monitoring agency and a secure webpage, thereby enabling officers to review each offender's progress.

This chapter has provided readers with a brief description of the more widely used types of electronic supervision technologies. Electronic supervision technologies have continued to adapt to the needs of community corrections agencies and the offenders they supervise. These tools potentially provide officers with more certainty about the whereabouts of an offender and whether or not they have consumed alcohol. Some agencies may find that they do not have the need for all or any of these tools. Other agencies may experiment with several of them—typically including them as different intermediate responses—as pilot projects to evaluate the use of such technologies to determine if adequate supervision can be delivered in a less restrictive (and cost-efficient) manner. Whatever an agency's particular needs, this chapter provided a brief overview of several electronic supervision tools, detailed potential technological and organizational concerns, and provided some suggestions for those considering implementing an electronic supervision component.

3 EVIDENCE-BASED PRACTICES AND ELECTRONIC MONITORING

Evidence-Based Practices for Community Supervision: A Brief Introduction

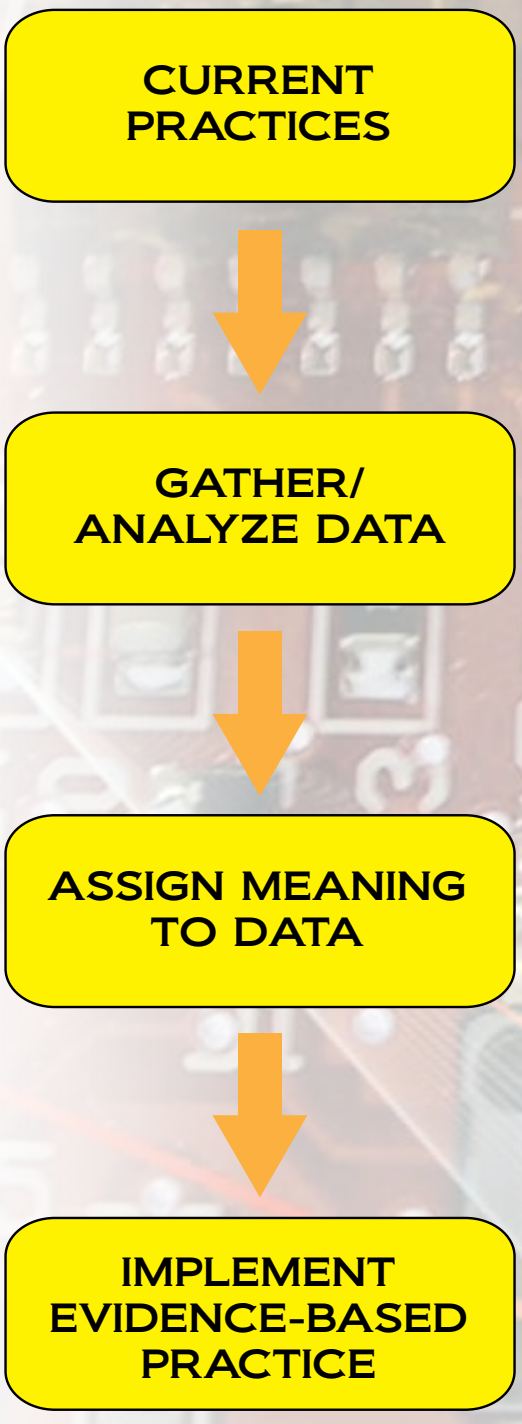
Identifying effective justice system interventions is a central goal for most everyone working in community corrections. The notion of evidence-based practices provides the field with strategies to collect and analyze empirical data to support or refute the efficacy of certain programs and practices. Evidence-based practices are rooted in an applied scientific approach to determine what interventions assist agencies in reducing recidivism levels and in accomplishing various intermediate outcomes, all the while remaining mindful of ever limited resources. This chapter provides information about evidence-based practices to assist policymakers, administrators, and line staff to better understand what electronic supervision can realistically accomplish with different high-risk offender populations. Often evidence-based practices are referred to in overly scientific terms that may intimidate, confuse, or frustrate some people. For this reason, this chapter will attempt to demystify evidence-based practices so that this strategy can be applied effectively in agencies to guide organizational decision making regarding electronic supervision.

Incarceration rates have grown steadily over the past 30 years. Prisons and jails have reached their capacity, as federal, state, and local budgets are stretched thin by incarcerating more and more offenders. In the U.S., there are more than 2 million adults incarcerated in jails and prisons. The bulk of these inmates eventually will be released back to communities all across the country (see Petersilia, 2003). Many of these released offenders are placed on parole or other post-incarceration supervision, and many others are placed on probation, which totals more than 5 million adults on probation and parole. Community corrections agencies are being challenged to supervise all of these offenders with stagnating budgets. To address these challenges, many agencies across the country are recognizing evidence-based practices as a strategy to make effective decisions with limited resources, and without diminishing the quality of services provided.

The phrase "evidence-based practices" may conjure up certain images for those working in community corrections. Often, "scientific" terms are used by researchers that have little meaning to the people actually implementing the policies

and practices. However, in this case, "evidence-based practices" is a rather straightforward concept, though implementation of evidence-based practices may not always be easy. Agencies collect and analyze evidence to determine which practices should remain, be eliminated, or altered according to desired outcomes. This is what some refer to as data-driven actions (see Figure 3a).

Figure 3a. Evidence-Based Practices as a Striaghtforward Process



Evidence-Based Practices: Rationalism over Emotionalism

Justice system practices, unlike many other public service fields, are created as part of an emotional outlet as the public becomes angry with or frightened by particular offenders. Consider the anger and politically charged emotionalism that has fostered many contemporary drug and sex offender laws. Another example of public outrage over justice system issues is the media and political attention given when a parolee or probationer commits a major crime. This emotionalism is not new, but rather is part of the nature of justice policies and practices. Executions were conducted in public to satisfy the public's desire to see punishment delivered – in this case – a physical punishment. Today, laws and policies are created ostensibly to deliver punishment and increase public safety. Unfortunately, however, many justice system policies are created with emotionalism that does not take into account what research suggests is effective practice. This is not to diminish the importance of the public's and the victim's desire to see punishment delivered to victimizers. Instead, it is important to recognize that evidence-based practices can contribute to more effective policies and practices. Table 3a provides a list of differences between evidence-based and emotion-based policies.

Table 3a. Evidence-Based Versus Emotional-Based Practices

	Evidence-Based Practices	Emotional-Based Practices
Purpose	Provide efficient and effective responses to problems	Respond to individual beliefs and desire for revenge
Assumption	Policies and practices should be based on evidence	Policies should be responsive to emotions
Relationship to the goals of the Criminal Justice System	Practices are developed with a focus given to all goals of the criminal justice system	Focus is primarily on retribution and just deserts
Focus on cost	Cost effectiveness is central to decision-making	Limited focus
The role of the community	The community plays an active role by providing information that can be used to determine effectiveness	The community plays a passive role with opinions serving as the public's input
The role of leaders	Leaders promote cultural change in the organization	Leaders manage and maintain traditional strategies
Role of line officers	Implement and set new practices	Maintain status quo
Time orientation	Focus on present and future	Focus on the past
Focus on evaluation	Extensive	Limited
The role of researchers	Researchers evaluate programs to determine effectiveness and recommend changes	Researchers study public attitudes and provide little input to program effectiveness
Definition of Success	Quality of program	Quantity of offenders

Central to the use of evidence-based practices is the identification of the justice system's goals. Is the justice system designed to punish offenders, rehabilitate them, or something else? Obviously, this is a complex question that cannot be fully answered here, but what can be agreed upon is that ultimately the public wants justice system policies that lead to increased public safety. Therefore, what is needed, especially given the public's emotionalism, is a rigorous approach to identifying practices that are less concerned with how much punishment an individual receives and more interested in shaping a supervisee's behavior.

Changing supervisees' behavior refers to attempts by community corrections officers to utilize a system of positive and negative responses to offender behaviors to promote long-term behavior change. This approach embraces social learning theories that suggest that offenders and non-offenders are not born as much as they are made through a combination of life experiences and psychological makeup. That is, some individuals learn—for many reasons—that it is acceptable to commit crimes, whereas others learn that it is inappropriate to commit criminal acts. If people can learn to commit crimes, then, community corrections officers should learn how to correct people, not just to punish them.

Evidence-Based Practices: Defining Success

We should know what community corrections agencies consider a successful intervention. Each agency will need to define exactly what it is looking for from a particular policy or program, and then create ways to measure its level of success. Recidivism is a term typically suggested as a benchmark, but there is considerable controversy about how to define and measure recidivism. Should agencies only be concerned with tallying the number of arrests, convictions, revocations, or returns to prison or jail? Or should they be concerned with whether offenders are working toward being alcohol and drug free, employed, and following the conditions of their supervision? There are many ways to measure recidivism (e.g., Albonetti and Hepburn, 1997; Andrews et al., 1990; Dejong, 1997), and although there is little empirical research on the "crime reducing" impact of electronic monitoring for offenders supervised in the community (Renzema and Mayo-Wilson, 2005), it might be that electronic monitoring is effective at helping some offenders reach intermediate goals.

The evidence-based practices literature focuses on correctional practices concerned with reducing an offender's propensity to commit new crimes or technical violations. Interestingly, there are times when this research actually refutes mainstream thought regarding effective interventions. For instance, it has been commonly thought that the *number* of officer-offender contacts is most important to ensure offender compliance. There are probably many that recall traveling around town conducting home visits rather quickly, especially at the end of the month, to make sure that one had the correct number of visits with each offender. This quantitative approach to officer-offender interactions, however, is being pushed aside due to the realization that the amount of contacts is less important than the *quality* of contacts.

Agencies may have programs or policies in place that are not intended to reduce recidivism but to accomplish other goals. Many agencies have large numbers of offenders that are not on active supervision, which they refer to as "banked" or "administrative" caseloads. These offenders are typically not likely to need much direct officer supervision, and may take officers away from supervising more high-risk offenders. The New York City Probation Department is utilizing an electronic reporting system that allows such offenders to report to a kiosk at scheduled times. Kiosks are usually equipped with a camera and finger print scanner to verify the identity of the user, they are interfaced with police databases within the state, and they can prompt an offender to report to an officer, take a drug test, or follow some other action. Kiosk reporting is not expected to reduce recidivism—although there may be fewer technical violations because officers are not scrutinizing these offenders as closely—but this tool might alleviate workload problems in many agencies. In the New York City pilot, recidivism levels for offenders on kiosk reporting were found to be about the same as before kiosk reporting. Kiosk reporting allowed officers to pay more attention to higher-risk offenders, who had slight reductions in their failure rates.

Evidence-based practices, therefore, do not have to focus directly on recidivism, but can achieve other goals. Certainly, improvements in risk assessment and offender classification can have an indirect effect on recidivism rates. Broadly defining the goals of the justice system helps to assess the effects (or consequences) of different programs and

policies. To assist in developing evidence-based principles, the National Institute of Corrections (NIC) and the Crime and Justice Institute's (CJI) have developed guidelines for agencies implementing evidence-based practices.

NIC-CJI Integrated Evidence-Based Practices Model

NIC and CJI have developed an integrated model for implementing evidence-based practices to reduce the risk of recidivism (see Figure 3b). This is a tripartite model placing equal weight on: (1) evidence-based practices, (2) organizational development, and (3) collaboration. This model developed by NIC and CJI claims to have the potential to move community corrections toward practices rooted in empirically verifiable evidence (data), as opposed to assumptions of what does and does not work.

Figure 3b. Integrated Model for Developing Evidence-Based Practices

NIC and CJI developed what they refer to as an integrated implementation model that incorporates scientific investigations (such as evaluations), organizational culture change, and collaboration. The first element of this implementation strategy involves evidence-based practices, which are discussed in more detail in the next section. It is not enough, however, for agencies to merely measure the effectiveness of specific practices if there is not a flexible leader willing to adjust practices based upon evaluation findings. NIC and CJI emphasize the importance of developing organizational cultures that seek to improve agency functioning. Organizational development recognizes that implementing new practices or adopting new technologies can, at times, require courageous leaders. The courage comes from recognizing that the agency may need to change in certain areas, and often there are obstacles in the way of such change. It is essential for decision makers to change and/or eliminate existing programs. No doubt this is made more difficult for community corrections leaders due to several external constraints limiting "decision making" power such as the slow movement of government, media attention, and legislative oversight.

Pfeffer and Sutton (2006) recognize that many large corporations try to deliver products and services in the most cost-effective and efficient manner. They mention how many top CEOs have been forced to shift away from longstanding business practices due to evidence suggesting their ineffectiveness—measured as lost productivity and profits. Community corrections leaders have to adopt a new operating logic based not upon what sounds good, nor upon the path of least resistance when implementing an electronic supervision component(s), but rather administrators must create an atmosphere that empowers employees to collect appropriate information, to objectively process

Table 3b. Fifteen Questions Leaders Can Ask Themselves to Promote Cultural Change When Using Electronic Monitoring Technologies

1. How can officers determine the amount and type of electronic monitoring intervention needed to protect and promote behavioral change among offenders?
2. How can the electronic monitoring tool raise offenders' levels of internal motivation to change?
3. How are offenders' risk level related to chances of success on electronic monitoring?
4. How can electronic monitoring tools address offenders' current criminogenic needs?
5. In what ways can the electronic monitoring tool be matched to different offenders' culture, gender, motivation levels, and related areas?
6. What degree of electronic monitoring is needed to effect change?
7. Can too much monitoring cause rather than prevent a problem?
8. To what degree should treatment programs be incorporated with electronic monitoring tools?
9. Do staff members using the electronic monitoring tools have the skills to make sure that the tools are used in ways that address the specific characteristics and needs of offenders?
10. Are positive rewards for offenders incorporated with the application of the electronic monitoring tool?
11. Is the electronic monitoring tool promoting offenders' abilities to engage in ongoing support in natural communities and restricting offenders' access to criminal networks?
12. How is the effectiveness of the electronic monitoring tool and related practices going to be defined?
13. How will information learned about the ongoing application of electronic monitoring tools be used to adjust the application of the tools.
14. How is collaboration being promoted through the use of the electronic monitoring tools.
15. How will new technological advances and cultural shifts influence the use of the electronic monitoring tools?

Source: Developed from a discussion of the eight principles described by NIC and CJI.

that information, and to make decisions based upon the findings. Table 3b provides a list of questions that community corrections leaders can ask to assist in promoting cultural change when implementing electronic monitoring technologies.

The third arm of the integrated implementation model recognizes the need for enhancing buy-in and collaboration among both agency members and other agencies as well (Joplin, Bogue, Campbell, Carey, Clawson, et al., 2004). No community corrections agency can carry out all their duties without the input and assistance of other agencies and stakeholders. And, for this reason, probation and parole cannot be expected to tackle community supervision alone, especially for many high-risk offender populations. In fact, Kim English and her colleagues from the Colorado Department of Public Safety coined the approach known as the "containment model" to supervise sex offenders (English, Pullen, and Jones, 1996). This approach creates a highly structured life for sex offenders through a complex collaboration of justice and non-justice agencies working together to provide a layer of external control over offenders' lives. Community corrections agencies must reach out to other justice and non-justice organizations to incorporate, for instance, law enforcement, judicial personnel, and victim advocates in the supervision process. Besides establishing these external communication networks, agencies should also work toward communicating and collaborating with officers inside their agency and with policy makers who influence agency policies and practices.

The integrated implementation model has the potential to improve community corrections practices and programs for several reasons. First, this model moves the community corrections field away from practices founded mostly on myth and performed simply because "that is how things get done around here" to practices founded on data collection, analysis, and application of the findings in a practical way. Second, there is full recognition of organizational dynamics and the need for a progressive, innovative leadership style that allows for a decentralized form of decision making, including a willingness to accept evaluation findings, not as a defeat (did not reduce recidivism) or victory (reduced recidivism), but rather as the needed information to discontinue, maintain, or adjust practices. Lastly, the integrated model acknowledges the need for community corrections agencies to establish broad professional networks of justice and non-justice organizations to participate in the supervision process, something especially important for high-risk offenders (e.g., sex offenders, domestic violence offenders).

Electronic supervision is not expected to become the answer to all justice system problems, but it may have potential as an additional tool for community corrections officers to shape offender behavior. Or, conversely, it could be found that electronic supervision components do not result in significant reductions in violating or criminal behaviors.[4] This does not mean that electronic supervision is not effective at accomplishing other supervision goals. Next, we will focus briefly on the first element of the integrated implementation model, but we refer readers to the NIC and CJI publications and webpage for further discussion of organizational development and collaboration (www.crjustice.org/cji/niccji_initiative.html).

4 In fact, it is highly likely that electronic monitoring through its increased element of surveillance of an offender may lead to uncovering more technical violations and new crimes, but this has yet to be empirically verified.

Evidence-Based Practices: The Eight Principles

NIC and CJI developed eight evidence-based principles for effective interventions. This section provides a brief sketch of how each of these principles applies to electronic monitoring policies and practices. The eight principles developed by NIC and CJI are the following: (1) perform actuarial risk assessment, (2) enhance intrinsic motivation, (3) target interventions, (4) provide skills training, (5) increase positive reinforcement, (6) engage ongoing support in natural communities, (7) measure relevant processes and practices, and (8) provide measurement feedback (Clawson, Bogue, and Joplin, 2005, p. 6).

The first principle, actuarial risk assessment, is a foundational element for supervising offenders by allowing officers to determine the amount and type of interventions needed to maintain safety and to most effectively work toward offender behavior change. Actuarial risk assessments provide supervising officers with an initial glimpse into an offender's life, and are a needed tool to accurately classify offenders. Risk assessment instruments should be used in conjunction with other information gathered in a more informal way, such as home and office visits, discussions with treatment providers, and collateral contacts. The point here is that actuarial risk assessments are only one part of the assessment process. Officers should continually evaluate the offenders on their caseloads to determine where an offender is along a risk continuum.

Some may be wondering what "risk" really means—risk of what? One of Webster's definitions for risk states that "risk is the probability of loss or injury." For community corrections officers, this fear of loss or injury is measured differently across jurisdictions, and usually measures the likelihood of a noncompliant offender outcome. When supervising domestic violence offenders, for instance, there is no other fear of loss or injury more significant than the occurrence of another abuse crime. Research has found that offenders with combinations of certain background characteristics (e.g., antisocial personality disorder) and other more malleable (changeable) characteristics (e.g., substance abuse issues) are more or less likely to commit another domestic violence crime. Most of us refer to these offender characteristics as "*risk factors*," and we are aware that validated forms or instruments exist to help officers assess

electronic supervision components do not result in significant reductions in violating or criminal behaviors. This does not mean that electronic supervision is not effective at accomplishing other supervision goals.

the cumulative impact of such risk factors. Risk assessments provide agencies with a standardized way of determining if an offender is suitable for electronic monitoring or other electronic supervision tools.

The second principle, enhance intrinsic motivation, is related to the idea of shaping offender behavior as officers attempt to use communication and interaction strategies that encourage supervisees to *want* to change. Most of us have had to change some feature in our lives whether it was trying to lose weight, stop drinking, quit smoking, or another area of self-improvement. Accomplishing any one of these is not easy, and it requires internal drive or motivation to succeed. Seldom do people give up smoking cigarettes or lose weight because they were told to do so or forced to by someone else. The individual must want to change. Others may encourage and enhance this motivation by communicating to the smoker or the dieter that only he or she has the power to change. The change process is not easy and there may be times when individuals will relapse and smoke a cigarette or slip from their diet. This does not mean they have failed, but rather that they should not become overly discouraged and need to start over. Humans are creatures of habit, and many of these habits have existed for a long time. It is unrealistic to expect someone that has smoked cigarettes or had poor dietary habits to change overnight. Similarly, it is unreasonable to expect offenders who often come from socially disorganized neighborhoods, have substance abuse issues, and lengthy criminal records to change immediately. Community corrections officers, instead, should focus on raising the level of internal motivation to change.

Enhancing intrinsic motivation in offenders is somewhat different from motivation needed for self-improvement. Many of us are resistant to change, as are some high-risk offenders, but the difference is that offenders are being told they must change. Officers may be able to encourage or stimulate internal motivation among individuals on community supervision. There are several ways by which electronic monitoring can contribute to bringing out such motivation by providing offenders with external control, by monitoring their behaviors and communicating with them in a way that breaks down areas of ambivalence to pro-social norms. It may be that officers are working with an individual that has never been out of prison successfully for a year during his or her adult life. If, for instance, this individual manages to remain in the community for two years, then the community corrections agency has made progress with this person. There are many ways to measure whether or not an individual or officer has been successful, and sometimes officers need to consider the individual case to determine whether progress has been made. It is not so much that individuals defined as high-risk cannot or do not want to change, but rather that they face hurdles—more so than with those defined as low-risk—and it is in recognizing this that electronic supervision technologies may help officers do their job. Again, all electronic supervision technologies are additional tools to consider incorporating into their case plans; they are not quick fixes to recidivism.

The third principle, targeting interventions, is more nuanced than the others. I t actually involves five parts: (1) risk principle, (2) criminogenic need principle, (3) responsivity principle, (4) dosage, and (5) treatment. The risk principle recognizes that offenders present different levels of risk of failure on supervision (however an agency may measure it), and that agencies must target interventions according to these risk levels. Essentially, do not place low-risk offenders in

settings with high-risk offenders. Research has shown in the past that when low-risk offenders were placed in treatment services with high-risk offenders that the low-risk offenders did much worse (Lowenkamp and Latessa, 2004). Risk levels should be determined through an ongoing process of evaluating risk with both actuarial instruments and more informal or informed officer judgments. Triaging offenders by risk classifications allows agencies to maximize resources by differentiating among the low- and high-risk offenders to concentrate their efforts (i.e., time, money) on high-risk offenders. Low-risk offenders are found to perform relatively well on community supervision when their lives are interrupted the least—leaving social bonds, attachments, and commitments intact—which makes them good candidates for kiosk reporting. Location tracking with GPS is more appropriate for the higher risk offenders, such as burglars, domestic violence abusers, and gang members.

The second element of targeting interventions is referred to as criminogenic needs. The needs principle captures those changing or dynamic offender risk factors such as mental health problems, substance abuse issues, informal networks, employment, and other individualized factors related to an offender's psychosocial functioning (Taxman and Thanner, 2006). Whereas risk factors focus on past behaviors related to an offender's criminal history, the needs principle recognizes that there are offender time-varying characteristics that greatly influence an offender's predisposition to reoffend. An example of this is the potential for a domestic abuser to be set off following the receipt of divorce or separation papers, or other potentially upsetting information, events, or processes taking place which foster a violent outburst. Taxman and Thanner (2006, p. 31) argue that criminogenic needs refer "to the degree to which daily functioning is impaired and involved in criminal (antisocial) behavior." Risk and needs assessments are essential for administrators confronting growing caseloads for they offer an objective measure of an offender's likelihood to recidivate and they identify the most appropriate interventions based upon the unique risks and needs presented by each offender. Community corrections officers may need to adjust case plans in light of an assortment of static (risk) and dynamic (needs) factors. Cumulatively, the risk and needs principles recognize the importance of considering offender past behaviors alongside changing (and changeable) characteristics that contribute to his or her likelihood of reoffending.

The responsivity principle argues that a variety of learning styles and approaches exist and that interventions should be assigned carefully to offenders according to their culture, gender, motivation levels, intelligence, and other areas. Evidence-based practices research suggests that treatments must be matched to each offender, and that particular care should be taken to match style and methods of communication with an offender's level of readiness to change their behavior. This means, for instance, that it may be pointless to include substance abuse treatment interventions for offenders without a substance abuse problem. It is recognized that in order for agencies to maximize the impact of interventions it is important to carefully match offenders to services as the potential exists for interventions to actually have an inverse effect from their intentions.

The dosage principle acknowledges the importance of quantity of interventions. Providing either too many or too few services or structure to offenders' lives can have significant unintended consequences. Too much supervision

Providing either too many or too few services or structure to offenders' lives can have significant unintended consequences. Too much supervision or monitoring can lead to what Payne and Gainey (1998) referred to as the brutalization effect.

or monitoring can lead to what Payne and Gainey (1998) referred to as the brutalization effect. These researchers found that some offenders on home detention felt unfairly treated and frustrated by too many interventions or punishments, and they may believe that they cannot meet all of the conditions and stop trying to change. From an organizational standpoint, too many interventions can siphon resources by taking too much officer time. A strategy commonly accepted is to apply high levels of structure and services during the first three to six months. This initial supervision period should structure about half to three-quarters of offenders' "free" time. GPS may be a good tool to use with many high-risk and recently returning individuals during their initial time in the community.

The treatment principle is essential for many high-risk offenders. High-risk offenders have thinking and behavior problems that lead them to commit crimes. Treatment should be directed at high-risk offenders to work toward changing offender thought patterns, which will hopefully lead to a change in behaviors. Take, for instance, a convicted sex offender who believes it is appropriate to engage in sexual behavior with children. Many of these offenders convince themselves that children are sexual beings who have had their sexual freedom restricted. Obviously, it is paramount that sex offender supervision teams work to change such thinking patterns to ones that define sexual behavior with children as victimizing behavior. Hopefully, by changing such thought, we can also change offender behaviors. Some Canadian researchers found that offenders on house arrest with electronic monitoring did not have lower failures per se. They did find that the offenders monitored with electronic monitoring and ordered to treatment were more likely to complete their treatment, and the offenders that completed their treatment had much lower failure rates (Bonta, Rooney, and Wallace-Capretta, 2000a, 2000b).

The fourth principle, provide skills training, emphasizes the need for staff to be trained in many areas of psycho-social development and deficiencies. By training staff in social learning theory, antisocial thought patterns, and motivational interviewing techniques, offenders may learn necessary skills through role-playing and other practice sessions. This principle can be extended to include providing initial and ongoing training on any electronic supervision components.

The fifth principle, positive reinforcement, suggests that the best way to shape behavior is by using four positive responses for each negative response given. Positive reinforcement may be a difficult thing to apply with high-risk offenders.

Community corrections officers need to remember that they are not in the business of punishing as much as they are in the business of using rehabilitative methods to improve long-term public safety. So, if an offender has not had a travel violation (i.e., followed all inclusion and exclusion zone requirements) for a certain length of time, an officer should mention this to the offender. This is not to suggest that by merely telling an offender that he or she is doing well that dramatic change will immediately take place. Instead, the idea behind variable response systems is that officers can make offenders *want* to receive the positive reinforcer.

Consider how good it feels when someone mentions to you that you have done something well or that they appreciate you. These sorts of interactions do have the potential to produce significant positive feelings for people. Officers should not ignore inappropriate behavior, however. All inappropriate behavior should be responded to as quickly as possible as should all positive behavior. The idea here is to create a context for supervisees in which they expect a response from their supervising officer for some of their pro-social behaviors. The presence of positive reinforcers is more effective than the mere absence of a negative response.

Often in community supervision the only supervisee behavior that is responded to is inappropriate behavior, whereas good behavior is ignored. A non-justice system example of this is trying to get a child to improve his or her grades in school. One approach is to let the child know that all bad grades (however defined) will be matched with something the child does not like such as more chores, earlier bedtime, or becoming restricted from his or her favorite toys. On the one hand, this may yield a child who does not get bad grades, or, on the other hand, the child may get bad grades and suffer the consequences, which may eventually foster a strained parent-child relationship. An alternative approach is to use those negative consequences if the child gets bad grades, and if the child excels at school they get something they want such as fewer chores, later bedtime, or a special dessert. The point here is that the second approach does not shy away from letting the student (or offender) know that they have underperformed, but it but also lets them know that when they do well, they may get something they want.

The sixth principle, engage ongoing support in natural communities, identifies the importance of collateral contacts and supports. Informal social controls are crucial to shaping behavior. The pro-social individuals within an offender's group of friends and family can contribute to keeping an offender on the right track. GPS technologies allow officers to exclude offenders from being around other offenders on GPS.

The first six evidence-based principles developed by NIC and CJI focus on how officers can work to shape offender behaviors, and the last two principles focus on important organizational features. The seventh principle, measure relevant processes and practices, allows agencies to identify important benchmarks for offender behavior as well as officer performance. Principle eight, provide measurement feedback, recognizes the need for the information from principle seven to be used in a constructive way to steer agency decisions.

Electronic Monitoring and Crime Reduction: Evidence-Based and Scientific Research

Despite the growing popularity of electronic supervision tools—especially GPS tracking of sex offenders—the bulk of research fails to find a significant crime reduction benefit from using electronic supervision. This is not to say that electronic supervision is not a worthwhile component for community supervision. The research that does exist, for the most part, focuses on either radio frequency home arrest programs and GPS tracking. In this section we will summarize the research findings about electronic monitoring to provide those considering including an electronic monitoring component and those with existing components to set realistic goals and expectations.

Evaluations typically focus on the direct impact of a new intervention on supervisee behavior. Supervisee behavior is usually measured as a technical violation or some other type of recidivism measure. Some researchers have considered the potential for electronic monitoring to have an indirect effect on offender behavior. That is, electronic monitoring may not necessarily cause offenders to change their decisions to commit a new crime. But it might make offenders more aware of their likelihood for being caught violating other conditions of their supervision. A comparison between court- and corrections-based programs using electronic monitoring with inmates and probationers in Canada found little direct crime-reducing effect for either program using electronic monitoring (Bonta, Wallace-Capretta, and Rooney, 2000a).

Other benefits were found as offenders on electronic monitoring had more favorable attitudes toward staff (e.g., empathy, trust), and had significantly higher program treatment completion rates. In light of evidence-based principles mentioned above, these findings are significant. First, finding that offenders in the electronic monitoring groups perceived supervising officers more positively suggests the potential for officers to have more impact with offenders. Second, offenders that completed treatment were far less likely to fail on supervision, and nearly all of the offenders in the electronic monitoring groups completed their treatment.

The most robust evaluation of electronic monitoring effectiveness investigates the use of both radio frequency and GPS technologies. A group of professors from Florida State University, Padgett, Bales, and Blomberg (2006), looked at more than 75,000 offenders under house arrest in Florida, and found that offenders monitored with either technology had significantly lower rates of revocations for technical violations or new crimes as well as lower absconding rates. This is the only evaluation of electronic monitoring technologies in a community corrections setting to uncover such optimistic findings.

How should agencies interpret these findings? First, it appears that there may be some potential for curtailing offender behavior while they are on electronic monitoring. However, it is important to remember that community supervision is a human-intensive process, and just because offenders in one place do well when they are monitored with electronic monitoring devices does not mean this will translate to another jurisdiction or that this will affect behavior over time when no longer monitored. There is no way of knowing from the current research what actually caused lower absconding in Florida or better treatment completion in Canada. The point here is that electronic monitoring is not a program, but

rather one tool that can be incorporated into an overall supervision strategy to try to bring about long-term behavior change. It may be that in those jurisdictions where electronic monitoring appears to bring about crime reduction there are other program components at work.

Barriers to Implementing Electronic Monitoring Tools as Evidence-Based Practices

Given the widespread support for developing evidence-based practices, it is natural to question why these practices are not more widely used. A number of barriers inhibit the use of evidence-based practices. These barriers include the following:

- Policymakers may be resistant to new strategies
- Concerns about cost
- Public desire for retribution
- Complacency among line staff
- Defining success
- Lack of awareness
- Cooperating with researchers
- Fear of the unknown

Table 3c provides an overview of these issues and ways that community corrections officials can overcome them.

Table 3c. Challenges to Developing Evidence Based Practices

Challenge	Why the Challenge Exists	How to Overcome the Barrier
Policymakers resistant to new strategies	Policy makers are responsive to public opinion and may be unwilling to try new things.	Engage in an awareness campaign informing policy makers of the utility of evidence-based strategies.
Concerns about cost	Because many evidence-based practices are new, start-up costs may cause resistance among the public and policy makers.	Cost-benefits analyses can demonstrate whether the start-up costs are less than the continued costs for ineffective practices.
Public desire for retribution	The public demands that offenders be punished and many evidence-based policies appear to be "slaps on the wrist."	Even less severe sanctions are experienced as punitive by offenders. Those developing evidence-based practices should demonstrate the punitive nature of those practices to the public.
Complacency among line staff	Some workers implementing policies may be accustomed to old practices and resistant to change.	Leaders must demonstrate how and why new practices will make the line officers' job more practical, without adding unnecessary work to workers.
Defining success	It is sometimes difficult to define measures of success for evidence-based practices when individuals are focused on punishment as the definition of success.	Indicators of success should be broadly defined so that all advantages of evidence-based practices are recognized and evaluated thoroughly.
Lack of awareness about evidence-based practices	Criminal justice officials may not be aware of practices that are deemed to be most effective.	Through collaborative efforts, different practitioners can share information about effective and promising strategies.
Cooperating with researchers	In some places a gap exists between researchers and practitioners.	Developing partnerships and relationships with research agencies and college/university researchers
Fear of the unknown	Because evidence-based practices are new, leaders and practitioners may see untested practices as risky.	Pilot test the program and demonstrate to leaders and practitioners that the principles of the new practice are based on evidence that suggest the new practice should be effective.

Central to all of these issues is resistance to change by policymakers, practitioners, and the public. Table 3d highlights things that community corrections leaders can do when promoting change surrounding the use of electronic monitoring technologies.

Table 3d. Strategies Leaders and Policy Makers Can Follow to Promote Change

Collaborate with others involved in the criminal justice system

Help workers see the benefits of the new practices

Adjust practices as needed

Never say never

Give incentives to workers and offenders

Evaluate the new electronic monitoring techniques

CONCLUSION

This chapter provides readers with a brief introduction to evidence-based practices and the integrated model developed by NIC and CJI. Evidence-based principles provide some direction for agencies considering using electronic monitoring or other electronic supervision tools in their jurisdictions. Deciding to place any offender on electronic supervision, requires an adequate risk assessment to determine the individual's risk and criminogenic need factors. The purpose of this chapter is to introduce readers to the need for incorporating data collection and analysis into any electronic supervision components to identify the aspects that work, don't work, and those that need to be adjusted. Evidence-based practices is an overly used phrase in the community corrections field, and we do not want to contribute to such overuse. Instead, this chapter is meant more to demystify evidence-based practices as a set of principles designed to understand the effects of community corrections practices.

4 AGENCY CONSIDERATIONS: LEADERSHIP, COLLABORATION, ORGANIZATIONAL NEEDS AND CAPABILITIES, AND OFFENDER SELECTION

Developing or enhancing electronic supervision of offenders requires thoughtful consideration of a variety of issues. A systematic planning approach is the best way to achieve success. Although planning may seem time consuming, and sometimes tedious, it is well worth the initial investment of time and effort. If a thorough planning process is not undertaken, then agencies and professionals may pay a greater price in the future through unsuccessful program implementation and unproductive use of resources.

This chapter outlines a development process to help agency and community planners think through a variety of issues. The overall development process is shown in figure 4a. Several parts of the process are addressed in this chapter, while future chapters are devoted to other issues. Although the development process is presented in a linear fashion, in reality it is unlikely to proceed effortlessly from one step to the next. Rather, as decisions are made, it may be necessary to return to issues addressed earlier to ensure that all aspects of the plan are consistent.

Leadership for Change

Whether planning to use electronic supervision technologies for the first time or assessing whether current strategies need to be enhanced, leadership for the process is essential. "Leadership requires the capacity to set a course toward a goal and then draw others along the same path through persuasion, influence, and power" (Reconnecting Youth & Community: A Youth Development Approach, 1996, p. 8). "Effective change requires the leadership of someone (or a small group of individuals) who will step forward to provide guidance and direction. Strong, confident leaders draw on others' talents and skills and empower them to question and think creatively" (Reconnecting Youth & Community, 1996, p. 7).

A designated person who will coordinate the process of developing or enhancing the use of electronic technologies for offender supervision is essential. It is fortunate if the person is interested in electronic technologies or is already knowledgeable about them, but these are not the most important characteristics of an effective leader. An effective leader must have both organizational and "people" skills (Imel and Hart, 2000). He or she should be able to build strong

partnerships and get things done (Fulton, 1996). Table 4a provides a list of several characteristics needed for leadership.

Besides the personal qualities needed for good leadership, organizations must be willing to give leaders the following (Imel and Hart, 2000):Responsibility and accountability for the project's success or failure.

- Authority to make sure necessary project tasks are accomplished.
- Time to do the job, which may mean adjusting other work responsibilities.
- Management support to back the leader in what he or she has to do.
- Resources, such as space, support services, and financial resources.

COLLABORATION

Developing collaborative practices and networks can be a difficult task. Often this difficulty comes from a lack of understanding among the parties of each other's mission or organizational goal. Turf battles sometimes arise, making it difficult for anyone to accomplish his or her goal. Central to any collaborative effort is having open communication pathways structured around written policies, procedures, and protocols that clearly explain roles, duties, and expectations for all those involved in the collaboration. Collaboration is beneficial because it pools the strength and resources of several agencies to work toward particular goals. Some of the advantages and strategies for collaboration are listed below:

Figure 4a: Development Process

Table 4a. Characteristics For Leadership

Leadership requires courage. Most truly challenging situations demand not only imaginative solutions but also the tenacity to carry them out.

Leadership is not easy, although the results of true leadership make future efforts easier over time.

Leadership requires the ability to listen, as well as an openness to, and respect for, diversity and difference of opinion.

Leadership can feel demanding and isolating but results in a sense of belonging and community.

Leadership requires the ability to put aside personal bias or desires in decision making.

Leadership is the ability to make decisions, live with the consequences, accept the blame, share the credit, and learn from the experience.

Source: *Reconnecting Youth & Community: A Youth Development Approach.* (1996). Washington, DC; Family and Youth Services Bureau U.S. Department of Health and Human Services, 7.

Collaboration: Multidisciplinary Implementation Strategy

- Relies on multi-agency, cross-disciplinary linkages.
- Calls for within agency job specialization and training.
- Teams can overcome network gaps or fragmentation of the complex justice system.
- Reduces duplication of effort, hence increases resource efficiency.
- Reduces individual stress and burnout by providing coping mechanisms.
- Establish non-competitive relationships.
- Meetings are more than times to talk. They are to generate sustainable collaborative action (Hardy, Lawrence, and Phillips, 1998).
- Establish common terms and understandings of offenders and their management.
- All meeting participants must be included in the dialogue.
- Allowing everyone to contribute to the group's structure increases buy-in and improves the justice system response.
- Prevent powerful speakers from dominating the group meetings and structure of the collaborative process.
- This communicative structure allows for developing shared understandings of offenders and their supervision.
- The collaborative process should create common membership and collective identity.
- Establish written policies, procedures, and protocols stipulating procedures.

Public-Private Collaboration

Community corrections agencies can enter into collaborative agreements with public or private entities when implementing and operating an electronic supervision component. The Court Services and Offender Supervision Agency (CSOSA) in Washington, D.C.

is one example of an agency that works with both public and private agencies to supervise offenders. CSOSA draws on the power of local treatment, housing, employment, and other services as well as working closely with the police and institutional correctional facilities by communicating regularly. One agency cannot provide all the services which each offenders needs, and collaboration is a powerful tool for accomplishing an agency's goals. Agencies considering implementing an electronic supervision component could find that local law enforcement agencies are willing and interested in being incorporated as part of the alert response team for sex offenders. Or, it could be that other agencies have experience or knowledge of certain vendors that could be helpful.

FORMING IMPORTANT PARTNERSHIPS FOR CHANGE

The Value of Involving Stakeholders

While leadership is an important component of developing or enhancing strategies using electronic technologies to supervise offenders, "going it alone" by the leader can be counterproductive if stated objectives are to be accomplished. There are several key reasons for involving a variety of stakeholders in partnerships to consider electronic supervision development or enhancement issues. First, a variety of participants will bring different viewpoints about electronic supervision technologies to the decision making process. Because of this diversity in perspectives, more ideas are likely to be generated. This can seem cumbersome and problematic initially, as different stakeholders lobby for their particular convictions. However, if processed effectively, these varied ideas can provide a wealth of substantive proposals that can be honed into a consensus plan that best meets the needs of the agency and the community.

Another reason for involving stakeholders from the beginning is to identify issues, problems, and barriers that may occur in developing strategies to supervise offenders electronically. If such concerns are recognized from the outset, valuable time can be saved in the planning process. Nothing is more frustrating to all involved than to spend a great deal of time in development, just to have a previously uninvolved stakeholder thwart the process by bringing up issues or problems that are obvious and important to him or her but were overlooked by others.

Involving stakeholders from the early stages of the process may help win their investment in seeing the project through. Those who have not had an opportunity to share their ideas and hear others' views are more likely to find fault, or perhaps even sabotage the program component, when it is implemented. Finally, involved stakeholders are likely to be good ambassadors for the selected electronic supervision strategies. A well-chosen group of stakeholders can have far-reaching effects within an agency and beyond. They are more likely to promote the program and come to its defense if problems are encountered.

Composition of a Stakeholder Group

Several criteria should be considered when selecting stakeholders to participate in the planning process, including positions held within the agency or community and skills and knowledge needed within the working group. Table 4b provides a list of some of these variables. The specific stakeholders selected to comprise the planning group will depend on

where in the justice system the electronic supervision strategies will be implemented and the most advantageous grouping to accomplish the tasks required. It will be important to select the appropriate representatives from the first column in table 4b and also to be sure that the range of skills and knowledge needed, including those areas in the right column, are represented to the fullest extent possible.

Strong, effective partnerships require mutuality— give and take. Each person must feel like and be viewed as an equal member of the group. Members need to be able to work both independently and in concert with each other. Partnerships are built on respect for one another's ideas and suggestions (Fulton, 1996). Although it is tempting to select only those whom we believe will agree with us when inviting stakeholders to participate, this is not necessarily the best strategy. It is important to select those who will be affected by the electronic supervision strategies, those who have essential background knowledge, those who are most likely to support the implementation of the approach, and also those who are likely to oppose it. Knowing the objections of those opposed to a particular course of action may help planners mold the strategies so they are more acceptable. It is also possible that, when involved in the process, persons opposed to a change will modify their opinions.

Table 4b. Potential Stakeholders And Their Contributions

Representatives From	Skills and Knowledge

• Judiciary
• Legislators/Policymakers (e.g. state, county, local)
• Law Enforcement
• Jail/Juvenile Detention/Corrections Administrators
• Probation and Parole (juvenile and/or adult)
  • Administrators
  • Line personnel
  • Clerical Staff
  • Union representatives
  • Purchasing and Legal Department representatives
• Prosecution
• Defense Bar/Public Defender
• Pretrial Services Personnel
• Public/Taxpayers/Citizens
• Funding agencies
• Victims and Victims' Advocates
• Offenders and their families
• Service providers
• Employers
• Others, based on jurisdiction
• Vendors (if already selected)
• Media Representatives
	• Technical knowledge
	• Legal knowledge
	• Knowledge of budget and financing
	• Experience working with offenders
	• Knowledge of community values and needs
	• Planning/program development skills
	• Program evaluation skills
	• Public relations experience

Stakeholder Tasks

Stakeholders may be involved in considering a variety of issues about developing or enhancing electronic supervision technologies. Several of the tasks include:

- Assessing needs and resources.
- Developing policies and procedures.
- Identifying and securing financial and in-kind support.
- Providing needed services for the program and its clients.
- Marketing and promoting awareness.

Strategies for Successful Stakeholder Involvement

A balance between inclusiveness of important stakeholders and manageability of a working group must be reached. On the one hand, it may be difficult to accomplish tasks with extremely large groups. On the other hand, omission of key stakeholders may doom the planning process to failure. Usually, the best size group to accomplish tasks is ten or fewer members. However, there are options for including more people and still accomplishing tasks. A larger group may be formed, but smaller working subcommittees may be assigned to work on specific tasks. Another alternative is a small decision making group whose members reach out to involve other representatives on certain tasks or to request their expertise on particular matters. Imel and Hart (2000) suggest that it may be effective to have both a project steering committee and an implementation team. The steering committee usually addresses higher-level planning and policy decisions, while the implementation team works out the operational details.

CONDUCT A COMMUNITY OR AGENCY NEEDS AND RESOURCES ASSESSMENT

The Assessment Process

The next step in the process of developing or enhancing strategies for electronically supervising offenders is to take a close look at the community, the agency, and programs within which the supervision will occur. An assessment of needs and resources provides valuable information for the rest of the planning process. Determining the need for electronic supervision technologies requires asking and finding answers to several questions. Although the following are not exhaustive, they represent several of the questions that might be addressed through a needs assessment:

- Is the jurisdiction experiencing a jail or prison crowding problem? If so, what types of and how many offenders presently are incarcerated who might be released to the community with electronic supervision? Could these offenders be managed successfully in the community with electronic supervision?
- Are there offenders already being supervised in the community who need more restrictive supervision? How many of these offenders are there?
- What are community attitudes toward the possible use of electronic supervision technologies? What is the agency's

and community's attitude about correctional services for offenders? Do they see it as public protection, offender punishment, or offender rehabilitation? Do they think these goals can be achieved with electronic supervision?

- Are there victims (e.g., domestic violence victims, sexual assault victims) in the community who could be threatened or benefit from the use of electronic technologies to alert them to the approach of their offender?
- Can the agency obtain enough resources (e.g., funding, personnel) to deal effectively with the additional information about offenders' behavior that will be generated through electronic supervision technologies?
- Can the agency and other parts of the justice system adequately respond to violations by offenders being electronically supervised? (Electronic technologies may actually increase technical violations as well as the identification of new crimes.)
- Can related personnel issues be resolved effectively and economically (e.g., union issues, need for overtime and weekend work)?

These questions will yield two types of information surrounding issues of offender supervision with electronic technologies: factual data, and opinions and viewpoints. Agencies should gather information from various sources, attempt to verify its accuracy, and explore the perceptions of community members and justice professionals to compile a balanced, comprehensive overview of both the need for implementing an electronic supervision program and the resources available to support it (Crowe and Schaefer, 1992).

Generally, needs and resources assessment data are obtained through four methods (Crowe and Schaefer, 1992): (1) Gathering existing data, (2) Reviewing records, (3) Administering surveys and questionnaires, and (4) Engaging in interviews and informal communication. To gather and use the information effectively, the agency will need to engage in a six-step process (Crowe and Schaefer, 1992):

1. Determine the types and sources of information needed.
2. Design the data collection process.
3. Determine procedures for collecting and recording data.
4. Analyze results.
5. Report results.
6. Use results for making decisions about developing or enhancing the supervision of offenders with electronic technologies.

Data collection and analysis procedures should be unbiased to enhance the integrity of the outcome. For example, planners should be sure to include respondents from varied backgrounds and those whose viewpoints might be quite disparate. Sufficient questions should be asked to collect a range of information. Response options should be varied enough to elicit an array of viewpoints. Any anticipated outcome should be acknowledged, but other possibilities should be actively pursued (Crowe & Schaefer, 1992).

After the data are collected, analyzed, and reported, the agency must decide on developing or enhancing the supervision of offenders with electronic technologies. The level of need for the program should be balanced against the level of resources available to implement it. A strong need for the program may be evident, but resources may be scarce. Thus, resource development may be required before the program can be implemented adequately (Crowe and Schaefer, 1992). For example, electronic supervision may identify more technical violations and new crimes, thereby requiring sanctions, including incarceration. If jail crowding is a problem, what additional resources or strategies will be needed to accommodate the discovery of increased crimes and violations?

Deciding Where Electronic Supervision Technologies Will Be Used

Electronic supervision strategies may be appropriate at several points within the criminal and juvenile justice systems. Part of the needs and resources assessment process should include looking at the entire system to assess all the areas in which electronic supervision might be beneficial. In some cases, if electronic technologies could be used in more than one program, cooperative development might result in economies of scale and in more efficient program operation. Figure 4b shows multiple points at which electronic supervision can be considered. The rectangular boxes represent different parts of the justice process, and the hexagonal boxes indicate programs in which electronic supervision might be used at these points. The use of electronic supervision within each of these programs is discussed elsewhere in this guide.

Another important step in the assessment process may be taking a look at other programs and reviewing their policies and procedures. If possible, leaders and/or stakeholders should visit comparable jurisdictions that are implementing electronic supervision technologies successfully. After reading this guide, several issues to observe and question about these programs will become evident.

FUNDING

Once the costs and benefits of electronic supervision technologies have been analyzed, and stakeholders have decided to proceed with implementing one or more components using these strategies, the issue of funding must be considered. There are a variety of options for funding an electronic supervision tool including:

- Agency budgets
- Grants
- Private donations
- In-kind resources
- Resource sharing
- Offender fees

Likely, a combination of these funding mechanisms will be necessary to fully support the use of an electronic supervision tool. Administrators should establish multiple streams of revenue to support ongoing supervision practices with scrupulous budgetary practices, continually investigating potential grant and private donation opportunities, soliciting for matching funds, and developing innovative ways to collect offender fees. Each of these areas will be discussed briefly.

Agency Budgets

Agencies rarely have spare funds in their budgets, so usually the funding that comes from an agency budget must be reallocated from other agency resources. In the example of electronic supervision costs shown in figure 4c, some of the required costs may be appropriated from other parts of an agency's budget. For example, the staffing, communication equipment, storage, and staff training expenses might already be in the agency's budget and could be directed toward this tool. However, if the agency has decided to include higher risk offenders in electronic supervision than might otherwise be released in the community, it may be necessary to hire additional staff who would also require more equipment, office space, and training. In such a case, additional funds for the electronic supervision tool would be required.

Although it would be difficult to negotiate, if one purpose of implementing electronic supervision is to alleviate jail or prison crowding, reallocation of resources from one agency to another may be appropriate. Even though there is often an effort to diminish institutional populations and to increase the number of offenders supervised in the community, there is almost never a redistribution of funds from jails and prisons to community corrections agencies to assist with the additional costs of this shift. Strict fiscal management and foresight are necessary administrative tools to plan, implement, and maintain an electronic supervision tool.

Grants and Government Funding

At local and state levels it may be possible to request additional funds for new programs and practices. Such money is generally available through local and state tax revenues. The process for obtaining such funds may be through the usual budget process, or it may involve a special request, such as a grant application or special appropriations.

State or federal grants are usually either block (or formula) grants or discretionary (or categorical) grants. Block grants are usually distributed to states by the federal government based on a formula that is usually mandated through legislation. In turn, states may allocate these funds to local jurisdictions or agencies. Discretionary grants provide funds for a specific purpose, and money usually is provided directly from a federal or state agency to a local jurisdiction or agency. The most likely place to find such grants for correctional purposes is the Office of Justice Programs (OJP) within the U.S. Department of Justice (DOJ). Within DOJ, there are several agencies that may offer discretionary grant opportunities related to offender supervision or victim safety, including (Imel and Hart, 2000):

- Bureau of Justice Assistance (BJA) http://www.ojp.usdoj.gov/BJA/.
- National Institute of Justice (NIJ) http://www.ojp.usdoj.gov/nij/.
- Office of Juvenile Justice and Delinquency Prevention (OJJDP) http://ojjdp.ncjrs.org/.
- Office for Victims of Crime (OVC) http://www.ojp.usdoj.gov/ovc/.
- Violence Against Women Office (VAWO) http://www.ovw.usdoj.gov/index.html.
- National Institute of Corrections (NIC) http://www.nicic.org/.

The DOJ is an excellent resource for the community corrections field, but some other federal agencies to consider are: the National Science Foundation, Department of Homeland Security, and the National Highway Traffic Safety Administration (NHTSA). These agencies are not within DOJ, but they may be a good alternative to consider when looking for funding. You should remember that just because one agency rejects a proposal, that does not necessarily mean that the proposal is not a good one. Receiving rejection letters from funders is rarely a good feeling. Sometimes when you get rejection letters you may feel like burning them and throwing the proposal into the garbage. Do not act so hastily, however. You should set the letter and the proposal to the side for a few days (maybe even weeks or months, depending on how frustrated you are) before carefully considering the critical comments in the rejection letter. Do not take these comments personally. You should see these comments as a way to get good feedback from some objective outsiders about your proposal. Do they suggest that your introduction does not engage the reader? Or are the comments focused on a weak literature review? It could be that the reviewer asks why you proposed one statistical technique when another may be more appropriate. The grant process is about writing, rejections, and rewriting, with intent of (over time) reducing the number of rejections, while getting better at the writing and rewriting.

We reiterate an earlier suggestion of developing strong researcher-practitioner relationships. The grant writing process requires a specific writing style, and sometimes a research background is helpful. Having a strong relationship with a local researcher or professor should make it easier for your agency to apply for grants. The reality here is that both parties involved in these relationships benefit. Professors sometimes struggle with gaining access to organizational records within a community corrections setting. Administrators sometimes grapple with how to assess practices. This relationship can be a "win-win" as a researcher gains organization access and conducts an efficiency assessment to determine the benefits relative to the costs of an electronic supervision tool. The community corrections field also benefits from these relationships because as more research of a higher quality is completed, it can be disseminated through various publications, web pages and conferences.

Private Donations

Private foundations and corporations sometimes offer financial support for initiatives that address public concerns. They often require a grant process similar to those of government agencies. Often these funds are limited by locality

or interest area. Various directories and web sites can be helpful in finding appropriate private funders. Although the requirements are different for private foundations, the grant-writing process is similar. There is no reason why a proposal that has been rejected by DOJ could not be revised and submitted to a private foundation, or vice versa. One slight difference with several private foundations is that they often require a short (no more than two pages) letter introducing your ideas for the money being asked for. Below are a few potential private foundations that may be interested in providing grant funds to evaluate electronic supervision tools in a community corrections setting.

- Open Society Institute: www.soros.org/initiatives/usprograms/focus/justice
- Justice, Equality, Human dignity, and Tolerance (JEHT): www.jehtfoundation.org/
- Annie E. Casey Foundation: www.aecf.org/

In-Kind Resources and Resource Sharing

Some grant applications require matching funds that may be actual money or in-kind resources. In-kind resources that an agency might pledge as matching funds could include office space and equipment, storage space, staff time, and similar resources that are already available. Similarly, other agencies may provide in-kind resources to assist with the development or enhancement of electronic supervision strategies. For example, law enforcement agencies might provide personnel or computer resources to assist corrections agencies with the electronic supervision of offenders.

Agency collaboration is another effective way to obtain resources for an electronic supervision tool. Through a joint agreement, agencies can share space and supplies, engage in interagency training and staffing, or develop relational computer systems. Indeed, public safety is a joint project, it is not something that community corrections (or even the criminal justice system) can accomplish on its own. You should reach out to other members of the criminal justice system to establish communication and resource partnerships across agency lines.

Offender Fees and Management of Offender Pay Programs

Requiring offenders to pay for various aspects of their supervision in the community is an increasingly prevalent practice. Many agencies charge a supervision fee beyond offenders' financial obligations for restitution, fines, court costs, and similar responsibilities. Compelling offenders to pay part of their supervision costs is another way of holding them accountable for their unlawful behavior.

As will be discussed in chapter Five on legal issues, although it is acceptable to charge offenders a fee for use of electronic supervision technologies, programs should not disqualify offenders from the program solely because of their inability to pay a fee. To do so would be discriminatory. Therefore, offenders should be selected for the program based on other eligibility criteria, and then their financial resources should be investigated. If they are unable to pay any or the entire electronic supervision fee, other resources should be made available. However, it may be acceptable to expect indigent offenders to perform community service in lieu of program fees.

Most agencies that charge offenders fees develop a sliding scale and assess payments based on the offender's income. As with other fees and fines owed by offenders, payment processes should be clearly articulated and monitored during the course of electronic supervision. At the beginning of the supervision period, offenders should receive an explanation of the fee process including the amount he or she will be required to pay. This should be provided both orally and in writing, and the offender and supervising corrections personnel should sign the agreement. Further, offenders may be required to pay for any equipment or consumable supplies that they willfully damage or lose. Among the information that should be included in the agreement are the following:

- The amount of payment.
- When payments are due.
- Acceptable types of payment mechanisms (e.g., money orders, credit cards, cash).
- How payments can be made (e.g., in-person, mailed).
- How receipts will be given.
- Identifying information that must be included with the payment (e.g., name, address, identification number).
- Consequences for delinquent payments (e.g., late fees, being dropped from electronic supervision).
- What to do if problems arise that prevent payment.

During supervisory sessions, corrections personnel should emphasize the importance of timely payments and reinforce the offender's financial obligations. When an outside organization is used for monitoring the offender, these agencies may assume fee collection responsibilities as well, often requiring the payment of fees in advance. Management of fee payments by a service provider alleviates community corrections personnel from this responsibility and allows them to focus their attention on other issues with the offender. However, if a service provider manages fee payments, the corrections agency must retain oversight that assures program integrity. It would be inappropriate for a service provider to minimize violations by an offender who is making regular payments in order to maintain paying clients in the program. The corrections agency should be advised of all violations and should maintain control of offender participation. At the same time, service providers should not fail to provide services because an offender is not paying fees. As is mentioned in chapter 5, agencies also should consider alternative sources of funding for indigent participants and others unable to afford the electronic supervision component.

There will be many individuals unable to afford paying hundreds of dollars each month for the electronic supervision component. Often offenders have several other court-imposed financial obligations, and some offenders are charged over $300 each month for the GPS component alone. Agencies, in general, experience low compliance with the payment schedules and some judges are reluctant to impose sanctions due to an offender's financial situation. Relying upon an offender to pay model without significant supplemental funding will almost always create a budget shortfall within the agency. Some agencies have noticed that when they enforce electronic supervision costs, other repayment line items

decrease such as victim restitution and fines. Establishing realistic sliding scale repayment estimates can ease such fiscal issues.

COST BENEFIT ANALYSIS

Before incorporating any electronic supervision technology, agencies must consider the costs and benefits related to the equipment. There are several costs related to utilizing electronic supervision technologies that agencies need to weigh against the expected benefits from any technology. The central concerns include (1) purchasing and maintaining equipment, (2) responding to notifications, (3) training, and (4) staffing. The benefits from any technology, which are sometimes more difficult to calculate beforehand, may include (1) reducing jail crowding, (2) crime deterrence, (3) increased offender compliance with other conditions, and (4) a better understanding of each offender.

Equipment costs and maintenance vary between the type of technology selected and the specific role that vendors will have in maintaining and replacing equipment. Similar to any sort of technology, ranging from home computers to motor vehicles, there are initial start-up costs for purchasing the item and then there are expenses associated with upkeep. All contracts should clearly state how damaged or lost equipment will be replaced.[5] Who is responsible for repairing a GPS bracelet that an offender cut off and threw in the dumpster? How will such devices be replaced? Will agencies keep a surplus inventory of equipment? We cannot cover all the issues possible with equipment costs and maintenance here, but agencies considering developing an electronic supervision component need to be aware that there are many costs related to equipment upkeep. An excellent resource for agencies considering implementing a GPS component is a report funded by the National Institute of Justice and completed by Tracy Brown, Steven McCabe, and Dr. Charles Wellford (2007). Brown et al. (2007) detailed lessons learned in the field by interviewing and surveying several community corrections agencies at various stages of development of an electronic monitoring program (the report can be found online at www.noblis.org/CCJTTechnicalReports.htm).

One of the least recognized costs (especially by lawmakers) related to any electronic supervision technology is the need to respond to alert notifications. This is a concern mostly for agencies using any active reporting systems in which near real time alerts are sent.[6] There are many horror stories of officers being awakened from sleep due to false alerts and equipment malfunctioning. Establishing a strong collaborative relationship with local law enforcement is recommended so that a rational 24-hour response protocol can be established.

Consider how lost many of us were the first time we turned on a computer or tried to send an email. Most people have received some sort of training for using computers—whether formally or informally—and electronic supervision technologies require officers to be familiar with how to use the equipment. There needs to be initial training to familiarize

5 Also, remember that there are many costs outside of simply leasing the equipment. Agencies that actively track offenders should budget 3 to 4 times the cost of the equipment lease. An agency with 100 offenders actively tracked may spend about $275,000/year on equipment leases, but may need to budget closer to $1,000,000 annually. This considers the staffing, office space, vehicle needs, safety equipment, and administrative costs associated with tracking offenders (George Drake of the NIJ Technology Working Group brought this to our attention).

6 Interestingly, some agencies require new GPS officers to carry a tracker with them for one week to understand the equipment better.

officers with the equipment and likely problems specific to each technology and jurisdiction. Agencies need to evaluate the suitability of their jurisdiction for any new technology before committing to a specific vendor. Initial training needs to be followed with periodic training as well.

Doubtlessly many of us purchase a variety of electronic technologies to make our lives easier and to free our time to do other things. Writing, for instance, has been made much easier with word processors compared to the days of typewriters and Wite-out® to correct mistakes; now the delete key fixes everything easily. Electronic supervision technologies, however, do not necessarily make things easier for officers. There are many staffing issues related to increased workload associated with electronic supervision. The point here is that electronic supervision components may not reduce workload, but instead they may increase it. Increased officer workload per offender must be factored into any cost and benefits analysis. Depending on the type of technology and offender population, it is advised that caseloads be kept small. One exception to this is kiosk reporting, which is designed to supervise large numbers of low-risk offenders.

Although the costs of any electronic supervision component are relatively easy to calculate, the benefits are a bit more ambiguous. How do you know if jail populations have been reduced due to a specific technology? Furthermore, measuring crime deterrence is nearly impossible as we cannot know each time that an offender would have committed a crime had it not been for the monitoring device. Nonetheless, agencies can implement programs that have the potential to reduce jail populations, especially through pretrial services. It is important to avoid what is referred to as "net-widening," which is when offenders that would not have been sent to jail or given another justice system sanction are placed on electronic supervision. Agency needs must drive technology use, and not the other way around.

Increased offender compliance with supervision is a potential benefit related to electronic supervision. For example, supervisees placed on remote alcohol monitoring may be more likely to avoid alcohol. Domestic abusers on GPS may be more likely to stay away from their victim's home. It is likely that supervisees may have problems initially with compliance, but once they learn that the equipment works and officers are going to respond and hold supervisees accountable their compliance should improve. In an evaluation of a sex offender supervision program using GPS monitoring, one officer mentioned that an offender became highly aware of the technology's capabilities when the officer reviewed his data points and let the offender know that he was speeding on his way to the office visit.

Community corrections is a profession reliant on officers collecting information. This information comes in the form of risk assessment instruments, informal information obtained through talking with an offender, criminal history information, and other bits of information about an offender's past or present. Electronic supervision technologies often provide officers with more information, whether it is information about where an offender was last night or whether he or she drank alcohol. What makes community corrections officers especially effective is when they take these bits of information to get a better understanding of where an offender is heading. Is the offender working toward behavior

change? Or is he or she continually trying to mislead the officer, treatment providers, and family members? Electronic supervision technologies provide officers with another glimpse into the offender's life.

Determine the Offender Populations Targeted with Electronic Supervision Technologies

Electronic monitoring was originally intended as a way to divert lower risk individuals from jail or prison. More recently GPS location tracking is being used with high-risk populations. There are several offender types most suitable for location tracking; we described five: gang members, drug offenders, domestic abusers, sex offenders, and drunk drivers. In this section, we will discuss briefly the reasons for using GPS with these offenders and the associated expectations. High-risk offenders are those that are most likely to fail during community supervision. For this reason, repeat drunk drivers are often considered to be high-risk clients, and one technology used in their supervision—ignition interlock systems—is also discussed in this section. Risk level is not the same as level of dangerousness or harm that may result from a new crime. It is believed that high-risk offenders can be prevented from committing new crimes by limiting where they can go and whom they can associate with, and in the case of chronic drunk drivers, some technologies might limit their opportunity to drive.

Gang Members

Gang-related crimes are becoming a major concern for many parts of the country. Gang culture condones criminality and violence, and it is difficult to curtail the criminal behavior of gang members. Location tracking of gang members can be used to know if they return to certain former gang hangouts or neighborhoods. With gang members, electronic monitoring will probably have little direct impact on their propensity to commit a new crime, and these offenders are more likely to have difficulty maintaining the equipment (e.g., charging the unit, keeping up with a two-piece unit). At least one manufacturer has a one-piece GPS unit designed especially for gang members with a longer battery life and mobile exclusion zones. Mobile exclusion zones are programmed to detect other GPS units worn by offenders in a certain distance set by the supervising officer. This way if two gang members are monitored with this GPS unit, then when they try to see each other an alert is sent. This is not offered as a solution to gang problems in any jurisdiction, but it might prove to be a helpful tool in knowing where gang members are and whether they are associating with other gang members.

Drug Offenders

Some drug offenders are high-risk in that they are highly likely to fail during supervision. Although we are discussing drug offenders, gang members, domestic abusers, and sex offenders as exclusive types of offenders, it is well-known that many offenders will cross categories. For instance, a person could be a gang member with a drug problem who is convicted of domestic assault. For purposes of this discussion, however, we are interested in providing only baseline information regarding electronic monitoring with these offender populations. Individuals with serious drug problems may be appropriate for GPS monitoring to prevent them from returning to known drug areas and to encourage them to follow other orders of supervision, namely treatment, employment, and education requirements.

Domestic Violence Offenders

Research by Edna Erez and Peter Ibarra (2007) has found optimistic results from a pretrial program using electronic monitoring of domestic violence offenders by making victims safer. Domestic abuse is typically prosecuted as a misdemeanor with abusers released from jail in about 24 hours. This period of time after the arrest and before the trial is one of the most dangerous times for a victim. Agencies can use GPS technology similar to the gang member systems by fitting a GPS anklet onto the offender and providing the victim with a GPS unit to keep with him or her. Here again, mobile exclusion zones can be established so that if the offender goes near the victim, alerts are sent in near real time to both the officer and the victim. This technology may not necessarily alter an offender's desire to abuse his or her spouse, but Edna Erez and Peter Ibarra (2007) have found that victims feel much safer and fewer victimizations occur during the pretrial phase.

Sex Offenders

Supervising high-risk sex offenders in the community presents many unique challenges that cannot be covered fully here. Sex offenders are a highly vilified group. Despite popular belief, however, sex offenders do not have high levels of supervision failures. The opposite tends to be the case, as sex offenders have some of the lowest recidivism rates (see Hanson, 1998; Hanson and Bussiere, 1998) of all felony offenders. Although there is not space to fully discuss sex offender supervision, it should be pointed out that sex offenders are not a monolithic group. Typically, when talking about sex offenders most people think of pedophiles randomly preying on strangers. The reality is that most child sexual assault victims are not victimized by a stranger, and there are several specific acts that can be defined as a sex crime.

For the most part, high-risk sex offenders need to be monitored closely when released in the community. Active GPS monitoring provides an additional tool to monitor high-risk sex offenders in the community, and although there is inconclusive evidence of the crime reduction effect achieved through electronic monitoring, this technology does provide officers (and communities) with an additional tool to know where offenders are in their re-offense cycle. GPS for high-risk sex offenders presents many potential benefits including providing an electronic alibi to clear offenders from a crime in a certain area, determining if they are in places they should not be, and giving officers extra information to motivate truth from offenders.

The first two of these advantages are rather straightforward. The third benefit requires officers to be trained in analyzing location data points to determine if offenders are being truthful with them. It is not uncommon to hear stories of offenders staying within their inclusion zones, but still finding ways to be close to potential victims. Consider an offender that stops at the same convenience store on his or her way home from work that the offender claims is merely a place to pick up a snack. However, upon closer review of the location points and times, it seems that the offender is spending too much time there. A supervising officer should be familiar with each sex offenders travel plans, and, in this case, conduct a follow-up visit to find out if there is anything inappropriate occurring such as finding that that the convenience store sells pornography or there is something else taking place in this store (e.g., a person fitting the offender's

victim type works there). Finding inappropriate behavior may not only require a violation or other sanctioning procedure, but more importantly it tells the officer that the offender is neither being honest nor trying to work towards recovery.

Drunk Drivers

There are several technologies available for agencies to apply an added layer of supervision for drunk-driving offenders. One such technology is ignition interlock devices. According to the Fatality Analysis Reporting System, in 2006 there were nearly 40,000 traffic related deaths, with nearly 40 percent of these deaths involving alcohol. This is a serious problem especially when considering that there were about 16,000 non-traffic related homicides reported in 2005, which is about the same number of alcohol-related traffic fatalities. The Traffic Injury Research Foundation (TIRF) is one of the leaders in researching the effectiveness of ignition interlock systems, and readers wanting more information about these (and other alcohol-monitoring technologies) should visit TIRF's webpage. www.trafficinjuryresearch.com.

Ignition interlock systems can be required in 40 states at the vehicle owner's expense. These devices require a person to submit to a breathalyzer before they can start their vehicle as well as additional periodic breath tests while driving—the "rolling retest" feature—that can typically occur every 5 to 30 minutes. Each breath test is recorded and can be reviewed by a supervising officer to determine test results, breath alcohol levels, maintenance information, and date and time of vehicle use. If someone fails a rolling retest, the vehicle does not shut off (as it would be dangerous to have a vehicle shut down while driving.), but rather this information is recorded and the lights will flash and the horn will honk until the vehicle is shut off.

The federal government has attempted to encourage states to incorporate ignition interlocks in their penal sanctions for repeat drunk drivers. The Transportation Equity Act (TEA) of 1998, for example, states in section 164 that state highway construction federal subsidies will be reduced if a federally approved repeat intoxicated driver law is not adopted into state law. Neugebauer (2002, p. 4) provides a thorough explanation of the legal implications of TEA, and summarizes its requirements below:

> *An approved "repeat intoxicated driver law" is a state law that provides for the following minimum penalties for a driver convicted of two or more DUI offenses. The offender must receive a driver's license suspension for not less than one year. [48] Each of the driver's vehicles must be impounded, immobilized, or have an ignition interlock installed at the conclusion of the 1-year license suspension. [49] The state must assess the driver's level of alcohol abuse and treatment. [50] Finally, the state's repeat intoxicated driver law must mandate certain minimum levels of community service or periods of incarceration, depending on the number of previous convictions. [51] Determination of each state's compliance with these provisions rests with the Secretary of the Department of Transportation.*

With this legislation, it is likely that more states will begin to incorporate ignition interlock systems in their repeat drunk driver programs. In 2004, an evaluation of an ignition interlock system in California was reported to the legislature that the ignition interlock systems were flawed by failure of offenders to install the equipment in their vehicles (DeYoung, Tashima, and Masten, 2004). However, they did find that when the devices were installed in the vehicles of repeat DUI offenders there was a reduction in DUI incidents. Interestingly, this evaluation also found that ignition interlock systems were ineffective for first time DUI offenders arrested with high blood alcohol levels. There is limited research regarding the effectiveness of ignition interlock systems at this time, but given the federal government's push and the potential lethality of drunk drivers, it is likely that there will be more research soon. It is important to remember that many of the repeat DUI offenders have a serious substance abuse problem that needs to be treated. Ignition interlock systems do not treat the underlying cause of drunk driving, but they might be an added obstacle for chronic drunk drivers. Agencies should carefully consider whether or not this is a technological tool they want to incorporate into their supervision plans.

DETERMINE THE PURPOSE AND GOALS FOR ELECTRONIC SUPERVISION

Consistency with Agency Values, Vision, and Mission

There is a tendency, when new technologies become available, to think we must have them. (Remember VHS tapes? How many of those are sitting in storage somewhere, never being used?) Many agencies reason that if other jurisdictions are using electronic supervision technologies then they probably should be using them also. However, not every technological or program development is the right choice for each agency. It must fit well with the agency's values, vision, and mission.

If the agency has documented its values, vision, and mission, these should be reexamined before any other steps are taken regarding implementation of electronic supervision strategies. If these are not yet documented for the agency, then that should be the first step taken.

Community and Agency Values

Values are the fundamental beliefs upon which the agency bases its practices. They shape all other decisions and actions the agency takes and motivate agency policies and practices. Values affect the work of all organizational levels, from the way resources are allocated by administrators to the way line personnel interact with offenders, victims, and the community (Boone & Fulton, 1995). Examples of agency values might include:

- We believe that the public deserves the opportunity to live in a safe community.
- We believe that victims of crime should be restored, to the fullest extent possible, to their precrime condition.
- We believe that offenders can change and that corrections personnel have a vital role in guiding that change process.
- We believe that justice system personnel should be well-trained and have the necessary tools to do their jobs efficiently and effectively.

Agency values cannot be developed and sustained in a vacuum; they also must consider the community's values. For example, if an agency places the most importance on its belief in offender rehabilitation, but the community is most interested in retribution, then there may be a disconnect. Work must first be done to learn what is important to individuals and groups within the community and how that intersects with agency values.

Agency Vision

The agency's vision provides a snapshot of what stakeholders would like the agency to accomplish in the future. It must be consistent with the agency's values, but it need not (and probably should not) be based on current operations. It is a dream, a wish list, and a guide for agency development.

Agency Mission

A mission statement should succinctly set forth the philosophy and intentions of the agency while reflecting the agency's values. It states what will be accomplished by the agency without spelling out how it will be done. Mission statements steer agencies' plans and operations toward the desired outcomes (Boone & Fulton, 1995). For example, an agency's mission statement may include aims to "protect the community and rehabilitate offenders." This could be achieved through a variety of strategies, including the use of electronic supervision technologies, but these would not be included in the mission statement.

In considering the use of electronic technologies, it is vital that agencies develop or review their mission statements to ensure that plans for use of these supervision strategies will be consistent with the agency mission. If the mission does not support such approaches, it will need to be changed, or plans for implementing the new techniques should be scrapped.

If the agency's values, vision, and mission are consistent, and if they support one or more of the reasons for using electronic technologies for supervising offenders — e.g., victim alert, community protection, offender behavior change, treatment compliance — then the agency should work toward implementing electronic supervision technologies to accomplish specific program purposes.

Purpose for Electronic Supervision

Delineating a clear statement of the purpose for offender supervision with electronic technologies is the fulcrum upon which all the rest of the program development process rests. Without a clear purpose statement, the development process is apt to be like taking a trip without a destination in mind. One may have interesting experiences along the way, but one may never complete the trip. Without a clear statement of purpose, there is a greater risk of getting diverted in the process.

The purpose statement should be consistent with the agency's values, vision, and mission as discussed previously. A purpose statement may be a simple narrative of a few sentences or several paragraphs that include more detailed information. The purpose statement needs to outline (Crowe & Schaefer, 1992):

- What should be accomplished through the implementation of an electronic supervision program component.
- A brief summary of the methods for accomplishing the purpose.
- The agencies or individuals responsible for various elements of the program and how they will interact to achieve the ultimate agency mission through the goals of this program component.
- The general time frame within which certain tasks or events are to occur.
- Any objectives or activities that are not to be pursued through this program.

There are a variety of purposes for which agencies may contemplate the use of electronic supervision technologies. Some common purposes are listed below, many of which may be interrelated.

- Public safety (e.g., identifying higher risk offenders for more intensive surveillance when released in the community).
- Safety of individual victims (e.g., victims of domestic violence or sexual assault who may be alerted if their perpetrator approaches them).
- Accountability of offenders (e.g., part of an offender's sentence, conditions of release, or sanctions for technical violations).
- Behavior change of offenders and recidivism reduction (e.g., provide structure and close supervision, enable offenders to obtain or maintain employment, and support and reinforce rehabilitation and treatment);
- Complying with mandates to reduce jail or prison populations.
- Providing correctional services in the most economical way.

As well as outlining in the purpose statement what the electronic supervision program component is planned to accomplish, any objectives or activities that are not to be part of the program should be articulated. For example, if the primary purpose for electronically supervising juvenile offenders is to promote positive behavior change, rather than to punish them, then this distinction should be explained.

Program Goals

If the purpose statement describes the destination, goals provide the road map for getting there. Goals translate the intentions of the agency mission and program purpose into organizational activities. Developing clear goals can bring the mission and purpose into focus and break it down into manageable, achievable components (Fulton, 1996). Goals are also important for, and the first step in, evaluating the program. Therefore, goal statements should contain at least the following three components:

- What will be accomplished as a result of the electronic supervision component.
- How it will be done.
- The time frame for achieving the desired result.

For example, the following illustrate possible goals for some of the purpose areas suggested in the previous section:

- Through the use of electronic supervision strategies for eligible offenders, the jail population in this jurisdiction will be reduced by 15 percent within five years.
- Within three years of the initiation of electronic supervision of drug-using offenders, substance abuse treatment completion rates will increase by 50 percent.
- Victims of domestic violence or sexual abuse whose perpetrators are placed on electronic supervision will report a 50 percent increase in their perceptions of personal safety after the first year of operation as measured by a telephone-administered questionnaire.
- High-risk youth who are supervised electronically will have a 30 percent reduction in recidivism rates after three years when compared with a control group of similar youthful offenders who are not supervised electronically.

It is important to think carefully about the goals for an electronic supervision program component. Overly ambitious or conflicting goals can create confusion (Boone and Fulton, 1995). For example, if a program has goals to hold offenders accountable (or to punish offenders) for technical violations, and it also hopes to reduce recidivism rates, then the two goals may be at cross purposes. Electronic supervision tools are likely to identify more technical violations than traditional supervision, and thus increase recidivism rates. Similarly, if the program purposes are to reduce jail crowding and punish offenders for violations, the result may be increasing, rather than decreasing jail populations. It may be helpful to view some goals as long term and others as short term (Fulton, 1996). For example, a short-term goal might be holding substance-abusing youth accountable with graduated sanctions up to and including detention, whereas a long-term goal would be their successful completion of substance abuse treatment. In another example, a short-term goal might be detecting violations and new crimes as quickly as possible, whereas the long-term goal could be a reduction in crime rates in the community.

DEVELOP POLICIES AND PROCEDURES

Policies and procedures for supervising offenders electronically must be integrated and consistent with other program and agency policies and procedures. Policies are the general course of action for a program, and they determine the way specific decisions are made. Procedures provide the specific "how-to" for implementing a program.

Much agency policy is informal. Consider agency norms for beginning the work day. Most agencies have an official start time or a specified number of hours to be worked each day. However, in some agencies, it is acceptable for people to arrive within 15 minutes of their designated starting time. In other agencies, as long as employees are in the building at the starting time, everything is fine. In still other agencies, employees are expected to arrive and be at their desks working at the appointed starting time. Variations from the official policy may be acceptable for starting the work day, but when operating an electronic supervision program component, it is important to have all policies and procedures written clearly and followed by all involved staff.

Written policies and procedures are the result of conscious decision-making. The lack of clear policies results in uncertainty on the part of staff. Sound policies help protect the agency and staff from possible legal liability resulting from improper actions on the part of staff (Crowe & Schaefer, 1992). Within the written policies and procedures, staff roles must be defined, and responsibilities must be specific so they can be carried out consistently. Continuity from one staff member to another in the implementation of the program can be achieved only through clearly written policies and procedures (Crowe and Schaefer, 1992).

Carefully considered written policies and procedures are crucial for program credibility, replication, and support. If the program is called into question, written policies will indicate that a careful decision-making process was undertaken before it was implemented. Effective policies and procedures are also important for generating funding support for a program. A funding source that can view the purpose and operational guidelines of a program in written form is more likely to want to invest in the program (Crowe and Schaefer, 1992). There are several essential elements that should be incorporated in a policy document, including:

- The purpose of the program.
- The legal authority and limitations of the program.
- The offenders who will be included in the program.
- The specific procedures that will be used.
- Staff duties and responsibilities.
- Selection and procurement of equipment and services.
- Operational costs and funding.

- How offender compliance or noncompliance will be addressed.
- Roles and relationships with other agencies/organizations (e.g., treatment providers, vendors, equipment manufacturers).
- Documentation and program evaluation.
- Dissemination of information and public relations.

These areas will be addressed in more detail in subsequent chapters of this guide. The information provided will assist agencies in considering various policy and procedural options for an electronic supervision program component.

CONCLUSION

This chapter laid the groundwork for getting started on developing or enhancing a program component to supervise offenders electronically. A series of nine decisions in the development process were shown in figure 4a. This chapter provided information on identifying and engaging leaders and stakeholders, conducting needs and resources assessment, determining the program purpose and goals, and developing policies and procedures. The following chapters will provide detailed information on each of the other decision points suggested, including legal issues, funding, selecting and procuring technology and services, supervising offenders, developing a public relations plan, and evaluating the program.

5 Legal Issues

Before going any further in the development and implementation of an electronic supervision strategy, agencies are advised to consider legal issues. Some legal issues worthy of consideration include recent legislation, regulations, and case law. Electronic supervision was a relatively non-existent justice system practice only two decades ago. Now, however, it is one of the most talked-about and legislated sanctions. There are many reasons to explain the rapid growth in the use of electronic supervision, but it seems that for the community corrections field the incorporation of GPS tracking for sex offenders accounts for a bulk of the recent legislation associated with electronic supervision tools. This chapter is meant only as a legal primer to identify and summarize key points to consider when examining legislation and case law related to electronic supervision with special attention given to the use of GPS for sex offenders.[7]

This chapter and other parts of this document are intended to provide reference information only to guide implementation of electronic supervision tools; we do not provide legal advice. Agencies should consult legal counsel for further guidance about any legal issues in a particular locality. Regular reviews and updating of legislation and case law affecting a given jurisdiction should be included as part of the agency's policies and procedures.

LEGISLATION

When developing or enhancing a program component for supervising defendants or offenders electronically, agencies must examine state legislation and regulations that may enable or restrict the use of electronic technologies for offender supervision. The following is derived from research that was conducted in 2008 into state and federal legislation regulating electronic supervision.[8] The statutes of each of the 50 states and the District of Columbia were searched and recent relevant case law was reviewed; however, this research cannot be characterized as replacing legal consultation before

7 A variety of resources are available for updating legislative and case law information. Among these are *The Journal of Offender Monitoring* and *Probation and Parole Law Reports*. Both state and national criminal justice associations also may be able to provide assistance with updated information.

8 Throughout this book, the phrase "electronic supervision" is used to better represent the array of technological options. However, most legislation uses the phrase "electronic monitoring" as a generic phrase.

incorporating electronic supervision technologies in your agency. The information offered here is intended only to provide a general idea of the kinds of electronic supervision legislation presently on the books. It also may be useful to research public policies from other jurisdictions when considering legislative solutions for specific issues.

Authorization for Electronic Supervision

The use of electronic supervision as a correctional option is authorized in the statutes of at least 46 states and the District of Columbia, with the bulk of these states describing electronic supervision technologies (Button, DeMichele, and Payne, 2009). Electronic supervision was originally intended as a way to alleviate jail and prison crowding by keeping mostly lower risk offenders and defendants in the community. The first generation of electronic technologies, for the most part, concentrated on placing drunk drivers, drug offenders, and persons awaiting trial into house arrest programs. Consider statutes from several states below:

1. Florida Statutes, Title XLVII, 948.03(2): (a) The court shall *require* intensive supervision and surveillance for an offender placed into community control, which may include but is not limited to . . . supervision by the Department of Corrections by means of an *electronic monitoring* device or system. (b) For an offender placed on criminal quarantine community control, the court shall require . . . electronic monitoring *24 hours per day*.

2. Kansas Statute 21-4603b: (a) The court or the secretary of corrections *may implement* a house arrest program for defendants or inmates being sentenced by the court or in the custody of the secretary of corrections . . . (b) House arrest is an individualized program in which the freedom of an inmate is restricted within the community, home or noninstitutional residential placement and specific sanctions are imposed and enforced. House arrest may include: . . . *electronic monitoring* which requires a transmitter to be strapped to the defendant or inmate which broadcasts an encoded signal to the receiver located in the defendant's or inmate's home. The receiver is connected to a central office computer and is notified of any absence of the defendant or inmate . . .[9]

3. New York State Consolidated Laws: Penal, Article 65, Section 10(4): When imposing a sentence of probation the court *may . . . require* the defendant to submit to the use of an *electronic monitoring* device and/or to follow a schedule that governs the defendant's daily movement. Such condition may be imposed only where the court, in its discretion, determines that requiring the defendant to comply with such condition will advance public safety, probationer control or probationer surveillance. Electronic monitoring shall be used in accordance with uniform procedures developed by the division of probation and correctional alternatives.

Authorizing legislation may take the form of a *mandate* requiring the use of electronic monitoring as in Florida, or it may take the form of *enabling* legislation, as seen in Kansas. The different entities that are authorized to implement electronic supervision, including the court (Florida, Kansas, and New York) and corrections agencies (Kansas), are also represented here.

9 Although the Kansas legislation provides an example of enabling legislation for electronic supervision, the prescriptive language used at the end of the quotation limits the specific technology that can be used. It may be better to word legislation more generally to accommodate the rapid changes in technology.

Traditionally, legislators were hesitant to allow monitoring that goes on inside an offender's home as well as audio recordings (covered mostly under wiretapping laws). For example, in KRS 532.200(5) Kentucky mandates that "No monitoring device capable of recording or transmitting: (a) visual images other than the defendant's face; (b) oral or wire communications or any auditory sound other than the defendant's voice; or (c) information as to the prisoner's activities while inside the home; shall be approved." Similarly, Nevada specifies in NRS 213.124 that "The [electronic supervision] device must be minimally intrusive and limited in capability to recording or transmitting information concerning the parolee's presence at his residence, including, but not limited to, the transmission of still visual images which do not concern the parolee's activities while inside his residence. A device which is capable of recording or transmitting: (a) oral or wire communications or any auditory sound; or (b) information concerning the parolee's activities while inside his residence, must not be used." Section 1203.016(b)(3) of the California Penal Code specifies that "[electronic supervision] devices shall not be used to eavesdrop or record any conversation, except a conversation between the participant and the person supervising the participant which is to be used solely for the purposes of voice identification." In Section 24-13-1520 of its Home Detention Act, South Carolina defines an approved electronic monitoring device as one that is "primarily intended to record and transmit information as to the defendant's presence or nonpresence in the home. . . . An approved electronic monitoring device may be used to record a conversation . . . solely for the purpose of identification and not for the purpose of eavesdropping or conducting any other illegally intrusive monitoring." These restrictions have loosened over time with many states allowing for digital photographs of offenders, location tracking with some models being able to record movements inside buildings, and other devices recording movements.

Other states specify characteristics of electronic supervision equipment that may be used, as was the case with the Kansas legislation cited earlier in this chapter. A less prescriptive example is found in Arkansas' home detention legislation (16-93-708(a)), which allows the use of "any electronic device approved by the board of corrections which meets the minimum Federal Communications Commission regulations and requirements, and which is limited in capability to recording or transmitting information as to the criminal defendant's presence in the home."

Electronic Supervision of Sex Offenders: A Legal Primer

The use of electronic monitoring for sex offenders is a relatively recent phenomenon. Several highly publicized sexual assault cases—mostly of children—have been followed with revised legislation (see Robinson, 2003; Simon, 1998, 2000). The disappearance and death of Adam Walsh, Megan Kanka, Jessica Lunsford, and others have fostered a punitive legislative response intended to reduce child predation, especially when occurring among strangers. Some of this legislation requires location tracking, lifetime supervision, registration and notification, housing restrictions, and numerous other provisions aimed at reducing sex related crimes (Maddux, 2005). The Jessica Lunsford Act, passed in Florida, mandates lengthy periods of probation or parole supervision for some categories of sex offenders, and requires various forms of electronic monitoring. More recently, federal legislation—the Adam Walsh Child Protection and Safety Act of 2006—has similar requirements demanding, among other things, electronic monitoring for some categories of sex offenders. Button et al. (2009) conducted research that answers the following questions:

1. What are the *characteristics* of legislation regarding electronic supervision for sex offenders?
2. What *patterns* characterize the development of electronic supervision for sex offenders across the country?
3. How might such legal patterns shape sex offender supervision?

Button et al. (2009) searched the following terms in a legal database: "sex, sex* offender, sex* predator, sex* assault, global position system, GPS, electronic monitor*, monitor, technology, and probation officer." The relevant state codes were identified and reviewed to determine the patterns, characteristics, and potential policy implications stemming from such legislation.

Button et al. (2009) considered 17 possible features of any state's legislation on electronic monitoring. We are only going to look at six of these features. The six categories are: (1) minimal enabling of electronic monitoring, (2) mandates sex offenders on electronic monitoring, (3) mandates GPS for sex offenders, (4) mandates offender payment, (5) mandates active GPS, and (6) time served credit. A little more than one-fourth of the country—14 states in all—have specific legislation regarding GPS for sex offenders. There were eight states (16 percent) that require active monitoring of offenders on GPS. Currently, this suggests that currently individual states are able to determine the type of tracking system used, each of which carries different practical concerns. Consider the impact of using an active reporting system in which an officer is supervising dozens of offenders with EM and receives continual email alerts, each of which must receive a response. The passive reporting technologies come with a different set of practical concerns, such as officers culling through 24 hours worth of data after receiving the information for the day before. This is a time-consuming process.

In 58 percent (n = 29) of states, offenders are required to pay at least a portion of monitoring costs. There is no doubt that it sounds reassuring to legislate for offenders to fund their electronic supervision components, but such a policy neglects to consider the financially poor offender population and the difficulty of enforcing such a policy.[10]

Four states (Alabama, Arkansas, Louisiana, and New Mexico) allow prisoners credit toward jail time served when placed on electronic supervision. This is especially important as it signals the potential for states to perceive electronic supervision technologies as punishment, similar to institutionalization, which may lead to further considerations of legal issues such as escapes, due process, and double jeopardy.

10 EM supervision technologies were initially developed as part of a short-term supervision program, typically lasting between 90 and 180 days. However, new legislation calls for long-term EM supervision, even life terms in some cases. The average costs for a radio frequency house arrest system is about $2 per day, passive GPS is about $5 per day, and active GPS is about $9 per day. It is easy to calculate that offenders would be charged between $60, $150, and $270 each month for the types of technologies mentioned, and if considered for a year the totals are $720, $1,800, and $3,240, respectively (see OPPAGA, 2005).

Table 5a. State Level Legislation Regarding Sex Offenders and Electronic Monitoring

State	Has EM	Mention Sex	Sex use EM	Sex required EM	EM time limit	Credit	GPS provision	GPS time limit	Offender pays	EM defined	GPS w/ sentence	Active & Passive	Active Monitor
Alabama	•	•	•	•	•	•			•	•		•	
Alaska	•								•				
Arizona	•				•				•			•	
Arkansas	•	•	•		•	•				•			
California	•						•		•	•			•
Connecticut	•								•				
Delaware	•												
District of Columbia	•												
Florida	•	•	•	•			•	•	•	•	•	•	
Georgia	•	•	•	•	•		•		•		•		
Hawaii	•												
Idaho	•								•				
Illinois	•	•	•	•					•	•			•
Indiana	•	•	•	•			•	•	•	•	•		
Iowa	•	•	•	•	•								
Kansas	•	•	•	•	•								
Louisiana	•	•	•	•	•	•			•				•
Maine	•	•	•	•					•				
Massachusetts	•	•	•										
Maryland	•								•				
Michigan	•	•	•	•	•		•		•	•			
Mississippi	•	•	•	•					•	•			
Missouri	•	•	•	•			•	•		•	•	•	
Montana	•	•	•	•			•		•	•		•	
Nebraska	•								•				
New Hampshire	•	•	•		•								
New Jersey	•	•	•							•			•
New Mexico	•					•							
New York	•	•											
North Carolina	•								•	•			
North Dakota	•	•	•						•	•		•	
Ohio	•	•	•	•			•	•			•		
Oklahoma	•	•	•	•			•		•	•	•		•
Oregon	•												
Pennsylvania	•								•	•			
Rhode Island	•	•	•		•		•	•	•		•		
South Carolina	•	•	•	•	•				•	•	•		•
South Dakota	•						•		•				
Tennessee	•	•	•	•					•				•
Texas	•								•	•			
Utah	•												
Vermont	•												
Virginia	•	•	•	•			•	•			•		•
Washington	•	•	•						•				
West Virginia	•	•	•	•			•		•	•			
Wisconsin	•	•	•				•	•	•			•	
Wyoming	•												

Of the states legislating policies for using electronic supervision technologies, 27 states (54 percent) have specific policies for monitoring sex offenders, with 19 of these states *requiring* GPS for sex offenders.

Electronic Monitoring Legal Landscape: Eight Patterns

Button et al. (2009) reviewed the statutes mentioned above and identified several patterns. The first six themes were identified by Button et al., with numbers 7 and 8 offered as additional considerations. The legislative themes are: (1) specific policy requirements, (2) sentencing issues, (3) risk assessments, (4) evaluations, (5) offender fees, (6) child offenders, (7) contracting for services and devices, and (8) certification of electronic supervision equipment and services.

1. General versus Specific Policies

Some states have passed statutes that clearly delineate expectations for using electronic supervision technologies, such as the type of equipment, type of offender, and length of time.

Other states were less precise in defining how electronic supervision is to be used. Examples of states with **general** policies include:

- Pennsylvania: "Individuals eligible for house arrest involving electronic monitoring shall be determined by administrative staff."
- South Dakota: "Upon receipt of an order that *a defendant* has been placed on probation… shall cooperate with the court services officer and comply with all directives thereby issued. If the sentencing judge has provided special conditions including…use of electronic monitoring then such person shall comply with such special conditions."
- Utah: "In determining its sentence the court…may require the defendant to participate in an electronic monitoring program."

Other states are more **specific** in regard to electronic supervision policies for sex offenders. Some examples are below:

- Florida: Requires that offenders who are designated *sexual predators* **must** upon release and for the rest of their life be subject to GPS.
- Indiana: Requires a sexually violent predator be placed on lifetime parole to be monitored via GPS device. Amends definition of "monitoring devices" to include those that provide 24 hour information on an *offender's location*, and capable of notifying appropriate officials of offender's violation.
- Ohio: Requires that certain *sexually violent predators* who are on conditional release in the community be subject to supervision by the Adult Parole Authority with a global positioning system device for **life**, unless a court removes the sexually violent predator classification.

2. Sentencing Issues

GPS tracking should not be the only mandatory condition of supervision for *any* offense type, especially for many sex offenders. Electronic supervision tools may assist in monitoring compliance of other conditions that could contribute toward long-term behavior change. Community supervision of sex offenders requires a collaborative effort with a detailed case management plan, and GPS may be a useful tool to include. A second theme identified by Button et al. (forthcoming) is the application of electronic monitoring and location tracking as a mandatory condition of community supervision for certain sex offenders following a period of incarceration. Kansas, Louisiana, and Maine, among others, have mandatory prison

This title is a precautionary note reminding readers not to see these technologies as the goal, but rather as one means to achieve the goal of public safety.

sentences in addition to *required lifetime GPS tracking of certain sex offenders*. Michigan "requires a term of imprisonment of 25 years without possibility of parole [and] requires lifetime electronic monitoring..."

Including GPS tracking for certain offenders may add an extra layer of supervision. But, the title of Button et al.'s (2009) article is: "Supervision with technology, not supervision as technology." This title is a precautionary note reminding readers not to see these technologies as the goal, but rather as one means to achieve the goal of public safety.

3. Risk Assessment

The third theme from Button et al. (2009) is the use of risk assessment to determine whether one is supervised with electronic monitoring or location tracking. It is important to remember that risk assessments measure the probability of offender recidivism (however it is defined in each agency). In Georgia, there is a review board set up to determine the risk level and classification of sex offenders. Button et al. (2009) report that Georgia's statute requires GPS monitoring if the Sexual Offender Registration Review Board deems an offender "sexually dangerous," which takes into account the seriousness of the assault, age of the victim, and the number of prior offenses. In Louisiana there is the Sex Offender Assessment Panel that evaluates sex offenders to identify some offenders as sexually violent predators. New Mexico and Connecticut have established similar advisory committees (Button et al., forthcoming).

Button et al. (2009) mention that Montana's state statute asserts that GPS monitoring is mandatory for "level 3 sex offenders," whereas in Illinois those "convicted of an offense that would *qualify* the accused as a sexual predator" are subject to location tracking. Although most States and the federal government do not define all of the elements in a risk assessment, some of the typical items include criminal history, age of victims, and likelihood to reoffend (see Hanson and Bussiere 1998; Sample and Bray, 2003). For now, states are given some flexibility as to how they will define and measure risk, but agencies should be careful not to over- or under-evaluate. No doubt that certain types of offenders, such as sex offenders, domestic violence perpetrators, and murders will naturally be perceived as higher risk due to the potential heinousness of their offenses. Agencies are advised to use a validated risk instrument in conjunction with officer subjective assessments based on information gathered from family, friends, co-workers, treatment providers, and others before applying any sanction or condition.

Table 5b. Legislative Patterns and their Implications for Probation/Parole Officers

Pattern from the Legislation	Implications for Probation and Parole Officers
General versus Specific Policy	Probation/parole officers working in states that have specific policies may have their workloads increase dramatically.
Sentence Integration	Probation/parole officers will need to expand their abilities to ensure that various types of sentences are administered simultaneously or consecutively
Risk Assessment	Probation/parole officers will need to be effectively trained how to determine risk.
Evaluation of Policies	Several states require that the policies will be evaluated. Probation/parole officers must be trained how to gather appropriate data that will effectively assess the utility policies. Thought should be given to using an empowerment approach to evaluate the policies.
Reliance on Offender Fees	Probation/parole officers will need to make sure that offenders are paying for the monitoring. In doing so, probation/parole officers will need to work with offenders to make sure they are able to pay their other bills. Also, probation/parole officials must recognize that the fees alone will not be nearly enough to pay for GPS.

4. Evaluation of the Policies

A fourth legislative theme identified by Button et al. (2009) demonstrates the growing acceptance and importance of evidence-based practices as it considers required program evaluations. Well-designed evaluations provide administrators with some insight into the effectiveness of the program component and the associated costs and benefits. Agencies should check the legislation in their state to determine if there is a requirement to collect specific information. Button et al. (2009) point out that Illinois and Kansas in the case of sex offenders require "statistical information on numbers of offenders required to register who are subject to electronic monitoring." In Indiana, reports are required to include "cost and implementation issues of GPS monitoring, including feasibility of recovering expense of GPS from offenders."

Even in States that do not require evaluations, agencies should collect and analyze basic information to make sure their supervision practices are operating as planned. Some data agencies may consider collecting include:

- Basic offender demographics (e.g., age, race, married, income, residential stability)
- Exclusion zone alerts
- Exclusion zone false alerts
- Strap/tampering alerts
- Strap/tampering false alerts
- Officer time spent on each item above
- Officers' attitude or satisfaction

Unless there are specific design requirements, most agencies need to collect basic information to simply get an idea of what any electronic supervision technology adds to supervision. Many times agencies forget to consider the officer workload involved in electronic supervision components, agencies are reminded to include officer workload and attitude or satisfaction questions to any evaluation. These are only a few basic items to consider for an evaluation.

5. Reliance on Offender Fees

One of the central reasons for early adoption of electronic supervision technologies was to save money. It was initially believed that low-risk offenders could be kept out of jails and in the community for less money, with no change in public safety. Several states (Georgia, Michigan, Oklahoma, Tennessee, and Wisconsin) require agencies to collect fees for the monitoring (Button et al., forthcoming). Most legislation includes exceptions. Button and her colleagues provide a few examples:

- Arizona: The prisoner shall pay an electronic monitoring fee in an amount ranging from zero to full cost and thirty dollars per month while on electronic monitoring, unless after determining the inability of the prisoner to pay these fees, the city or town assesses a lesser fee.
- Alaska: Require prisoner to pay all or a portion of the costs of electronic monitoring, but only if the prisoner has sufficient financial resources to pay the costs or a portion of the costs.
- Connecticut: The court may require that the subject to electronic monitoring pay directly to the electronic monitoring service provider a fee for the cost of such electronic monitoring services. If the court finds that the person subject to electronic monitoring is indigent and unable to pay the costs of electronic monitoring services, it shall waive such costs.

6. Child Abusers

The sixth legislative theme identified by Button et al. (2009) is the attention to adults that victimize children. Obviously, adults that victimize children are often seen as the most heinous sorts of victimizers, and they may need very close supervision. Button et al. (2009) state that: "Several states specifically mention punitive standards for crimes against children. These conditions vary in generality. While some states specify victim age (i.e., "crimes against children under age 14"), others speak in broader terms (i.e., "particularly those against children")." They provide the following examples:

- Georgia: Requires mandatory minimum sentence of 25 years to 50 years or life, in particular forcible crimes against children under age 14.
- Maine: Requires mandatory minimum imprisonment for 25 years for gross sexual assault against a victim less than 12 years of age.
- Florida: Requires that offenders…who have committed sex crimes, particularly those against children, must upon release and for the rest of their life be subject to GPS "active electronic monitoring."
- Wisconsin: Requires lifetime global positioning system tracking of offenders placed on probation for committing a serious child sex offense.

7. Contracting for Services/Devices

The seventh legislative theme, one not covered by Button et al. (2009), is legislation that authorizes departments of corrections to contract for equipment or services to implement electronic supervision. Under s.938.533 (2), Wisconsin authorizes the Department of Corrections to "purchase or provide electronic monitoring for the intensive surveillance of [corrective sanctions] program participants." Wisconsin also provides that "the department may contract with counties to provide electronic monitoring services relating to criminal offenders. The department shall charge a fee to counties for providing these services," under s. 301.135(1).

The Wyoming Department of Corrections is authorized under 7-13-1102(c) to contract, with or without competitive bidding, "with any governmental or nongovernmental entity to provide services required to carry out the provisions" of their intensive supervision program, which includes electronic monitoring. State regulations may further define policies and procedures for contracting specifications. Florida stipulates in Title XLVII (948.11) that

> *"the department [of corrections] shall issue a request for proposal for electronic monitoring devices to be utilized by the department for purposes of electronic monitoring under this section or any other section of law which authorizes electronic monitoring. Electronic monitoring devices certified for use by the department must be licensed by the FCC, must be capable of maintaining full operation on a backup power source for eight hours, and must meet such other necessary and vital specifications as may be set by the department for tamper-alert, efficient, and economical usage. The provisions of this section do not apply to passive devices."*

8. Certification of Electronic Supervision Equipment and Services

Only one example of legislation was found that required certification of equipment and services for electronic supervision. In Ohio, 2929.23(C)(1) provides that the superintendent of the Bureau of Criminal Identification and Investigation "shall certify for use in cases of electronically monitored house arrest, electronically monitored house detention, and electronically monitored early release specific types and brands of electronic monitoring devices and electronic monitoring systems that comply with the requirements of this section, section 5120.073 of the Revised Code, and those rules. Any manufacturer that, pursuant to this division, seeks to obtain the certification of any type or brand of electronic monitoring device or electronic monitoring system shall submit to the superintendent an application for certification in accordance with those rules together with the application fee and costs of certification as required by those rules."

LEGAL STATUS OF PERSONS BEING SUPERVISED ELECTRONICALLY

Convicted offenders and defendants on pretrial release have diminished legal protections, but they still retain many of the rights afforded by the Constitution of the United States. Youthful offenders' rights may be restricted even further because of their age (e.g., they may not legally use alcohol, purchase cigarettes, drive a car). On the other hand, defendants who are arrested but not convicted of a crime enjoy most of the rights and privileges of any citizen. When examining legal

issues, it is important to distinguish the legal status of those who may be supervised with electronic technologies and to plan program goals, strategies, and responses to violations and successful compliance accordingly.

Prior to trial and adjudication, defendants are considered legally innocent, and their rights are protected from the power of the State even though they may be confined to ensure they appear for trial or to protect the public. Supervision with electronic technology may be substituted for pretrial confinement to achieve these same purposes (Mullendore and Ballard, 2000).

Once a defendant is found guilty (through a plea or adjudication) or granted deferred adjudication in a criminal case, the response of the justice system may include goals of punishment and rehabilitation of the offender as well as the protection of the public. Electronic supervision technologies may be used to accomplish any or all of these goals (Mullendore and Ballard, 2000).

CONSTITUTIONAL ISSUES

Given the relative newness of GPS monitoring policies, there is little research of legal issues concerning agencies using GPS. Del Carmen and Vaughn (1986) provided one of the few articles about legal issues related to the use of electronic surveillance of probationers in 1986 when the use of electronic supervision technology was relatively new and before any relevant court cases had been decided. However, their examination of constitutional issues is still a valuable framework for understanding legal issues.

Del Carmen and Vaughn (1986) identified four general elements needed for a probation condition to be valid. With minor variations, these also would apply to pretrial and parole conditions for community release. Conditions must be:

- Reasonably related to the protection of society and/or the rehabilitation of the individual. (As pretrial defendants are legally innocent, the condition related to rehabilitation generally would not apply to them.)
- Clear.
- Reasonable.
- Constitutional.

Protection of society and the rehabilitation of offenders are such strong and broad justifications for a condition of release that almost any condition meets this requirement. Program goals that use electronic technology to limit offenders' movements in the community or to restrict access to psychoactive substances or undesirable associates could be justified as protecting the public. Similarly, goals for electronic supervision strategies that could be viewed as rehabilitation might include holding offenders accountable, helping them develop more structured lifestyles, and keeping them from using mood altering substances or committing new crimes. Clear conditions mean the offenders must understand them. To ensure that conditions are clear, justice system personnel (e.g., pretrial, probation, parole officers) should explain them fully and ensure

the defendants or offenders know what would constitute a violation of the condition. Reasonable conditions must be fair and achievable by the individual (Del Carmen & Vaughn, 1986).

Potential constitutional challenges to the use of electronic technologies for supervision of offenders might center around several constitutional amendments. Although few cases have been brought or won using these challenges, program administrators should be aware of them when using electronic technologies.

Legal Challenges

These amendments form the backdrop for legal challenges. Citizens that feel as though their civil rights have been violated may seek remedy through legal mechanisms. Although this chapter does not provide an exhaustive legal review, we will review briefly the relevant legal challenges most common for community corrections agencies related to electronic supervision technologies. The following six legal challenges are discussed: (1) unreasonable searches, (2) double jeopardy, (3) right against self-incrimination, (4) due process, (5) cruel and unusual punishment, and (6) equal protection. Readers are reminded of the difficulty in discussing legal issues for a national audience, given the many separate jurisdictions and court opinions. Therefore, those interested in implementing an electronic supervision component should consult with legal experts beforehand.

Unreasonable Searches

In general, courts have held that the rights of offenders on community supervision are not violated by the requirement that they submit to warrantless searches (e.g., *Griffin v. Wisconsin*, 107 S.Ct.3164, 1987). Skelton (1999a, p. 13-14) concludes:

> *"If the Supreme Court will authorize the warrantless, unannounced entry and search of a probationer's home by his probation officer accompanied by police officers (as was the case in Griffin), then the invasion of privacy incident to an unobtrusive electronic monitoring device is minor indeed."*

RELEVANT CONSTITUTIONAL AMENDMENTS

Fourth Amendment

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

Fifth Amendment

No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

Eighth Amendment

Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

Fourteenth Amendment

All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

For the most part, electronic technologies only enhance the ability of justice system personnel to accomplish the same objectives that ordinary visual surveillance could achieve (Del Carmen and Vaughn, 1986). The current generation of electronic supervision tools may replace this initial legal viewpoint by Del Carmen and Vaughn (1986) when the predominant form of electronic supervision tool was monitoring house arrest orders with radio-frequency devices. These devices did not track the location, speech, or other private information, with the exception of whether or not an individual followed their curfew, something a neighbor or probation officer could have seen with their own eyes. The point is that, initially, electronic supervision technologies mostly helped officers to improve existing forms of surveillance. Electronic tools made it far more efficient to monitor house arrest orders, but certain types of more recent technologies may move past simply enhancing surveillance to creating new surveillance possibilities.

Current technology allows for viewing the movements of individuals in near-real time, with active GPS, and even the video recording of individuals with certain telephone reporting systems, not to mention the potential use of iris scanning or RFID chip implants. The central issue to consider regarding unreasonable searches and GPS monitoring has to do with an offender's or defendant's realistic expectation of privacy. That is, all citizens have varying levels of realistic expectations of privacy, such as the conversations we have in public space compared to a sealed letter.

Electronic supervision tools are changing rapidly, and these tools bring with them new potential legal obstacles (Simmons, 2007). This is not to suggest that GPS or any other tool inherently violates reasonable search principles. Rather, as can be seen, it is not so much any technology that may or may not violate reasonable search doctrines, as much as the way the technology is used, such as the differences between GPS monitoring of sex offenders and domestic violence offenders. There is a time lag between when laws are passed, implemented, and acted upon, and when the courts are able to hear challenges and issue legal opinions.

Double Jeopardy

One appellate decision addressing the issue of double jeopardy is a case involving electronic supervision (*State* v. *Kovari*, 1997 Wash. App. LEXIS 718; Wash. Ct. App. 1997). In the case, the offender who was supervised electronically violated his probation conditions by leaving without permission, going to an unapproved destination, and drinking alcohol. The court imposed an additional 30 days of his sentence to be spent in jail. The prosecutor also charged him with escape, for which he was convicted and sentenced. He appealed claiming a double jeopardy violation. However, the appellate court determined that "[r]evocation of a suspended sentence is not a new prosecution but a continuing consequence of an earlier prosecution" and determined that double jeopardy did not exist (Skelton, 1999b). The offender could be sanctioned for violation of probation conditions and simultaneously face new charges of escape.

Right Against Self-Incrimination

The constitutional protection against self-incrimination applies to testimony given orally rather than physical evidence. Although the information gleaned from electronic supervision can provide evidence of a person's

noncompliance with conditions of release, the offender is not required to confess regarding his or her actions. Thus, electronic technology evidence would fall outside this domain of constitutional protection. The type of legal proceeding in question largely determines whether a constitutional claim is upheld. In criminal trials, challenges against testimonial self-incrimination are more often upheld, because guilt must be proved beyond any reasonable doubt. In revocation hearings, they usually fail, because the question of guilt relies upon the preponderance of evidence (Del Carmen and Vaughn, 1986).

Due Process

Certain procedures must be followed before persons can be deprived of their freedom. In the case of *United States* v. *Enjady* (1996 WL 80453, 10th Cir. 1996), the offender had been charged with aggravated sexual abuse and was denied pretrial release on electronic supervision based on his further potential threat to public safety. The court is responsible for determining by clear and convincing evidence that a defendant is a danger to the community, and this should be based on consideration of various factors. Due process rights are not violated when a court uses such factors and makes a determination to deny pretrial release on electronic supervision (Legal Spotlight, 1996).

In another case (*Long* v. *State*, 1999 WL 974429, Ind. App., 1999), the court found in favor of the plaintiff who claimed his due process rights were violated while he was being supervised with electronic technology. The State claimed Long had tampered with his electronic monitoring transmitter and failed to wear it at all times. Therefore, his probation was revoked. Long's Home Detention Order stipulated that he not "tamper with, attempt to fix, or allow anyone else to tamper with the transmitter equipment." Long maintained he had tripped and fallen, damaged the unit, and had attempted to fix it. The appellate court overturned Long's revocation on the basis of due process violations. The State had charged him with tampering, whereas the misdeed in question was attempting to fix the transmitter. The court found that being notified of the wrong charge was the same as not being notified at all. Being notified of the wrong charge compromised the defendant's ability to prepare his defense.

Neither of these cases implies that use of electronic technology for supervising offenders, in and of itself, is likely to be challenged on due process grounds. Again, legal research points out that constitutional issues will not emerge due to inherent features of the technology, but rather as a consequence of how it is used (see Hinson, 2007; Janicki, 2007; Simmons, 2007). Consider the differences identified by Hinson (2007) between using GPS to supervise a sex offender and a domestic violence offender. With sex offenders, GPS monitoring is intended to allow officers to analyze location data to identify any inappropriate travel patterns and to ensure that offenders follow their mandated travel plan. Domestic violence offenders, on the other hand, are monitored with GPS essentially to protect a specific victim (or alleged victim) from his or her perpetrator. Nonetheless, agencies implementing electronic supervision technologies must have policies and procedures in place that protect offenders' due process rights. As with other types of technology used in criminal and juvenile justice cases (e.g., urine drug testing), the technology must be accurate and meet scientific standards acceptable to courts. Should a revocation be based solely on the technological evidence, the methodology used must have a high degree

of accuracy (Del Carmen and Sorensen, 1988). States should probably not pass blanket legislation for certain offense types, but rather legislation should allow community corrections officers broad discretion to incorporate risk assessments, and to individualize conditions according to offender risks and needs (Andrews et al., 1990; Paparozzi and DeMichele, 2008).

Electronic supervision technologies should be seen as potential ways to enhance community corrections officer's abilities to structure an offender's life in a pro-social way.

Cruel and Unusual Punishment

Electronic technologies might be challenged on the basis of the constitutional protection against cruel and unusual punishment if release conditions are excessively harsh or if an offender is unlikely to have the ability to comply with them. For a sanction to violate cruel and unusual protections, it must be found to be unnecessary, arbitrary, or degrading to human dignity (see Kucharson, 2006). It can be assumed that an offender released to the community has the choice (albeit not an attractive one) to remain incarcerated. Therefore, release and compliance with related conditions can be considered *voluntary*. Del Carmen and Vaughn (1986) stated that electronic devices do not appear to violate the standard against cruel and unusual punishment, as they are less restrictive and more humane than incarceration.

Again, determining whether or not constitutional violations will emerge with any electronic supervision tool is dependent upon the way in which the tool is used. It appears that electronic supervision technologies *that are currently being used* do not violate cruel and unusual protections due to their voluntariness, and that they are less restrictive or humiliating than incarceration. This is not to say that in the future there will not be new devices created that skirt constitutional boundaries. Electronic supervision technologies should be seen as potential ways to enhance community corrections officer's abilities to structure an offender's life in a pro-social way.

Equal Protection

The Fourteenth Amendment guarantees all people equal protection of the law. It is in this area that some writers believe successful challenges to electronic supervision might occur and where program administrators must plan carefully. It is common for agencies to charge offenders some or all of the cost of the electronic supervision. This usually includes equipment

costs and also may include the costs for installation, monitoring and staff time. When indigent defendants, who otherwise would be eligible for release on electronic supervision, are incarcerated because they cannot afford to pay, the program may face legal challenges (Del Carmen and Vaughn, 1986). Kucharson (2006) points out that case law recognizes poverty as a protected characteristic similar to religion, race, or color, and, therefore, electronic supervision laws cannot disproportionately impact the indigent. Essentially, this means that agencies should use non-financial means for inclusion decisions, establish funds to assist the poor, and require insolvent offenders to complete community service or other duties to avoid equal protection violations (Kucharson, 2006).

Agencies should establish a sliding fee scale that will allow offenders of all income levels to be supervised electronically. However, in some cases, when sliding fees are used, those with the ability to pay may be admitted immediately, while those who are indigent may be placed on waiting lists for a limited number of free or low-priced program openings. When electronic supervision is administered by a private agency that depends on client fees, a requirement for enrollment may be employment of the offender, but this also is likely to eliminate low-income offenders from participating. Another strategy is to limit the program to certain geographic areas where offenders are more likely to have the resources to pay for electronic supervision. Offenders receiving government benefits, such as Social Security, may have income sufficient to pay the cost for electronic supervision and, therefore, may have an advantage over other offenders with similar qualifications but no such benefits (Mullendore and Ballard, 2000).

Besides direct payment for electronic supervision, offenders may be required to maintain other services with fees attached. For example, in the case of *State* v. *Byrd*, 2000 Tenn. Crim. App. LEXIS 670, Byrd was revoked from community supervision because he failed to abide by his curfew and to maintain an operational telephone for electronic supervision at his residence. Byrd claimed the telephone was disconnected for nonpayment of the bill. The appellate court remanded the case to the trial court to determine if Byrd willfully refused to pay for the services or failed to make an effort to obtain the means to pay. The conclusion of the appellate court was that if an inability to pay is not the fault of the offender, then that inability should not be used as the basis for incarceration (Kozlowski, 2000b). Agencies requiring offender fees should establish clear collection guidelines early in the supervision process, have the offender report their income and expenses for each month, and actively support offenders in successful payment.

These examples illustrate administrative program decisions that might result in equal protection challenges. Eligible participants should be defined in terms other than their financial resources, and funding mechanisms should not unduly limit access to electronic supervision by any particular group of offenders. If agencies want to consider a sliding scale that charges some offenders more than the actual cost of their electronic supervision in order to provide additional funds for indigent clients, State and Federal statutes and case law should be reviewed. Another option for agencies to consider is supplementing offender fee payments with jurisdictional funds that can be used to offset costs for offenders who are unable to pay for services.

LIABILITY ISSUES

del Carmen, et al. (2001), in a report funded by the National Institute of Corrections, point out that the U.S. is an increasingly litigious society, and community corrections officers no longer have the same protections from liability as they had in the past. Community corrections officers face potential liability lawsuits at both the state and federal levels as well as criminal or civil. Their monograph is a thorough review of liability issues facing all public officers, not only community corrections officers. del Carmen, et al. (2001: 2) point out that

> *"Judicial officers (judges and prosecutors) are vested with absolute immunity, but probation/parole officers enjoy only qualified immunity. Moreover, while states generally enjoy immunity from lawsuits (unless waived), state officers and local government agencies and employees do not have this immunity. Probation/parole officers, therefore, whether they are state or local employees, are susceptible to liability lawsuits in whatever they do that is related to their job."*

These legal scholars make it clear that community corrections officers face legal liability from anything they do or fail to do "related to their job," and they have a minimal amount of protection compared to some others. The speed by which electronic supervision technologies are being developed and implemented in correctional settings increases the potential for unanticipated consequences, such as legal liability.

Situations from which Liability Might Arise

As noted previously in this chapter, some courts have determined that electronic supervision is equivalent to the offender being in custody. In other situations, electronic supervision of offenders is viewed as a more restrictive form of release in the community. Therefore, the general public, as well as identified victims of the offender, may have an expectation of greater protection from offenders who are being supervised electronically.

Programs using electronic supervision technologies should be careful not to convey a false sense of security to the public or to specific victims. While it is important to convey confidence in the program and in the technology (see chapter 12 on Public Relations), it is equally important to be honest about the real and possible limitations of the technology.

Liability suggests a legal responsibility for one's professional conduct. Professionals involved with the use of electronic supervision technologies are subject to the same criminal laws that affect any other citizen. For example, theft of company property or driving under the influence of alcohol would make the individual subject to the same criminal charges and prosecution as anyone else. However, civil liabilities may result from actions (or inaction) related to one's job or professional performance. Three conditions must be present for a civil wrong to be substantiated (National Center for Juvenile Justice [NCJJ], 1991; also see del Carmen, et al., 2001):

- The defendant owed a duty or had a legal obligation to the plaintiff.
- The defendant breached this duty.

- The plaintiff suffered some damage as a direct or proximate consequence of the breach of the defendant's duty.

There are three ways a professional might breach a duty or obligation owed a plaintiff (NCJJ, 1991):

- Misfeasance — taking the wrong action.
- Malfeasance — performing an action the wrong way.
- Nonfeasance — doing nothing when an action is required.

In programs using electronic supervision technologies, liability may accrue especially from the following situations, and these are discussed further in the next section:

- Failure to adopt or follow agency policies and procedures.
- Failure to conform to accepted standards for implementation.
- Failure to know the limitations of the equipment, failure to use equipment according to manufacturer's recommendations, or both.
- Failure to act appropriately on additional information available about offenders.

Develop Sound Policies and Procedures

Agencies implementing programs with an electronic supervision component must develop sound policies consistent with their State's laws. These policies, at minimum, should include the following:

- Eligibility criteria for offenders who will be supervised electronically (this should be specific as to the types of offenders who will be accepted and the level of risk they pose).
- Information that must be provided to offenders when they are placed on electronic supervision.
- Information that should be provided to any identified victims of the offender.
- How equipment works and how to install it properly.
- Responsibilities for inspecting and repairing or replacing defective equipment.
- Establishing schedules for absences from the home or designating restricted areas in the community.
- How to respond to alerts.
- Steps that should be taken to notify the community or specific victims if an offender absconds, and procedures for attempting to locate the offender.
- Staffing requirements.

Conform to Accepted Standards

The American Bar Association has adopted the following "Principles for the Use of Electronically Monitored Home Confinement as a Criminal Sanction." The organization does not approve nor disapprove of home confinement but outlined these limitations for its use. Agencies should consider these when developing policies and procedures (Legal Issues, 1989, p. 12).

1. A sentence may include home confinement monitored by an electronic monitoring device if the judge finds, on the record, that such electronic monitored home confinement is the least restrictive alternative which should be imposed consistent with the protection of the public and the gravity of the offense.
2. In no event should a court or probation officer automatically require electronic monitoring as a condition of probation.
3. The ability of an individual to pay for the use of an electronic monitoring device should not be considered in determining whether to require the use of such a device when imposing sentence.

The American Correctional Association also has issued *Standards for Electronic Monitoring Programs* (1995). By assuring that a correctional program meets the criteria outlined by this publication, it can become accredited. The standards are related to:

- Program administration.
- Fiscal management.
- Personnel training and staff development.
- Case records.
- Information system and research.
- Building and safety codes.
- Offender supervision.
- Safety and emergency procedures.
- Rules and discipline.
- Reception and orientation of offenders.
- Classification.
- Release.

Act Appropriately on Information Gathered through Electronic Supervision

The community corrections field is primarily involved in the information collecting business. Think about how officers are continually collecting information about offenders, their victims and their families, whether through risk assessment, pre-sentence report, or institutional background. After an offender is through the initial supervision phase,

officers are collecting and analyzing information about his or her treatment plan, work or educational success, and other information about the realities of an offender's life. Many agencies have well-defined plans and policies about what information must be collected, how it is stored, analyzed, and acted upon, but newly implemented electronic supervision technologies usually have the ability to collect a lot of information. Whether agencies are considering adding a GPS-sex offender monitoring component or a secure remote alcohol monitoring device, serious consideration must be given to data management.

GPS monitoring may pose rather unique liability issues relative to other electronic supervision technologies. For GPS monitoring to work, officers must review offenders' data points in totality and across time in order to discern any noticeable patterns. The Tennessee Board of Probation and Parole (2007) evaluation revealed that uncovering non-compliant behavioral patterns in GPS data is not always easy, but entails sifting through roughly two million data points per offender annually. Future legal consequences actually blur with workload issues, given the amount of time it takes to review GPS data points. The Tennessee evaluation remarks that:

> *The impact of daily mapping reviews...illustrates the time required to fully review reports. Taking one minute for a cursory look per map to review a week of tracking data to look for trends would take three hours per day, assuming the caseload was limited to 25. This would consume 40 percent of the officers' workday, without ever leaving the office...A GPS program with approximately 360 offenders would create 750,000,000 GPS location points in the same year (Tennessee Board of Probation and Parole, 2007, p. 31-32).*

Some of this information may require a time-sensitive response, and if policies are applied across the board, there potentially will be agencies in which there are deficiencies in the infrastructure established to respond to exclusion violations. GPS-sex offender monitoring will inevitably alter how community corrections agencies are to collect, store, and analyze massive amounts of offender movement data.

Finally, electronic supervision provides justice system personnel with much more information about the offender and his or her behavior than would be available under usual conditions when offenders are released to the community. Having this information may heighten justice system personnel's responsibilities for responding proactively. Program personnel must follow all procedures for responding to notifications that offenders are not where they are supposed to be or that they are in areas from which they are restricted. This is especially important when agencies are working with offenders who have histories of endangering others, including sex offenders and domestic batterers. If there is information that high-risk offenders have tampered with the electronic supervision equipment, left the area to which they are confined, or entered an area from which they are restricted, agency personnel should be especially vigilant about notifying potential victims as quickly as possible. Procedures for locating absconders also should be followed carefully to reduce the risk of liability if the offender commits new crimes.

Know the Limitations of Equipment and Follow Manufacturer's Instructions for Use of Equipment

All electronic supervision technologies have their limitations, and none are foolproof. It is vital that program planners understand the operational strengths and limitations of the selected technology (e.g., range options, leave windows, cellular telephone interference) and develop program policies and select offenders accordingly.

Ensuring that equipment is installed properly and functioning accurately is vital as well. Agencies should select equipment with care so that it meets their program needs. Once particular equipment has been chosen, the manufacturer's directions for installation and operation should be followed precisely. In the event of an equipment malfunction, program personnel can attest to its proper use.

Defenses Against Liability

If agencies or personnel are sued for harm to communities and their members caused by program participants being supervised electronically, there are three types of defenses to liability. Absolute immunity bars suit, regardless of the culpability of the defendant's conduct, when such conduct occurred while acting in an official capacity. It is extended to judges, prosecutors, and legislators to promote fearless decision-making in government. For this reason, it is best to have the use of electronic supervision authorized by State legislation and/or court orders. Quasi-judicial immunity is provided to officials when performing judicial- type functions but not when performing other job-related functions (del Carmen and Louis, 1988).

Therefore, quasi-judicial immunity protects an officer when acting pursuant to court orders. However, the supervision of the offenders may be classified as an administrative function not covered by such immunity. Qualified immunity may be extended under two different circumstances. First, it may be applied to discretionary acts of an officer performed as part of his or her job responsibilities. Second, qualified immunity may shield an officer who acted in *good faith* while performing official functions. Qualified immunity covers most community corrections personnel.

Immunity is a legal question to be decided by a judge considering State statutes and case law; it is not applicable to Federal claims. All community corrections officers should have some understanding of their State's decisions on this issue (Collins, 1994). In the event an officer is not covered by immunity, or when making a determination of whether qualified immunity will be extended, the question arises: Did the officer act in good faith? The good faith defense applies as long as the officer's "conduct does not violate clearly established statutory or constitutional rights of which a reasonable person would have known" (*Harlow* v. *Fitzgerald*, 1982, 457 U.S. 800, 818 1982). A determination of good faith is subjective and generally not statutorily defined. A judge may decide whether the officer acted with an honest belief that she or he was acting lawfully and without malice. The burden to show the officer acted in bad faith is on the person bringing the complaint. Generally, one must act with total indifference to a person's safety or disregard clearly established constitutional rights to be found acting in bad faith.

Agencies involved in electronic supervision should have written policies and/or contracts that protect their interests and reduce the risk of liability. Specific responsibilities should be delineated in areas such as equipment installation, repairs, notification of alerts, responding to alerts, and the like. Another protection from liability is to establish a strong working relationship with the vendor providing the electronic supervision technology.

CONFIDENTIALITY/PRIVACY

Programs should carefully consider when and what types of information will be released, both about the program generally and about specific offenders or situations. These should be articulated in program policies and procedures.

One appellate court case should be noted. In *Copley Press Inc.* v. *Admin. Office of the Courts*, 648 N.E.2d 324 (Ill. Ct. App. 1995), the plaintiff requested disclosure of documents about the electronic supervision system operated by a pretrial services agency. The Administrative Office of the Courts was required to disclose nonconfidential portions of the records. However, drawing on an earlier case (*United States* v. *Corbitt*, 879 F.2d 224 (7th Cir., 1989), which said the press did not have a right to access presentence reports, the court ruled that the information sought by Copley Press was similar to the presentence reports in the Corbitt case. The court went on to say (Skelton, 1999b, p. 22):

> *Moreover, the present case can even be viewed as more compelling than Corbitt because the instant case is controlled by a statute which exempts the information from disclosure. Furthermore, the EMS program was admittedly an incarceration system. Thus, there is a possibility that information regarding the specialized techniques of the system would jeopardize the security of the system itself if disclosed. Accordingly, we hold that the plaintiff did not have a common-law or first amendment right to the documents.*

Agencies should investigate statutory requirements within their own States that apply to confidentiality/privacy regarding offenders, their victims or their families who might bring suits for defamation because of wrongful publication of their electronic supervision status or release of confidential information (Skelton, 1999b). Agency policies should delineate what information about offenders can or should be shared and to whom it may be released. Many agencies have release of information forms for offenders to sign before any information can be shared.

INSURANCE AND INDEMNIFICATION

When working with high-risk offender groups, agencies may want to consider whether additional insurance and indemnification are needed. Personnel would need to consider State laws and local ordinances, whether the agency is public or private, and the risk level of offenders being supervised, among other issues, when making decisions about this concern. Insurance might be useful in situations where the offender causes injuries to others or damages property, or in cases of staff negligence. Oftentimes, private and public agencies specify a cross indemnification clause in their contracts.

CONSULT LEGAL COUNSEL

Agencies should confer with State or local legal counsel during the process of program development and implementation. The possible legal ramifications of the use of electronic technologies must be deliberated carefully. It is important that policies and procedures for electronic supervision are consistent with other program policies and conform to relevant State and Federal laws. It is far more cost effective and much less time consuming to avoid a legal challenge than to respond to a law suit that arises because the legal aspects of the policies and procedures were not researched adequately.

CONCLUSION

This chapter provided a brief summary of some legal issues that are related to the development and implementation of electronic technologies for offender supervision. Legal issues and concerns should be researched carefully during the development of program policies and procedures. Legal challenges still may occur. However, if these issues have been reviewed, and decisions have been based on the best legal advice available, the agency and staff can proceed with greater confidence. Many concerns and questions were addressed in this chapter, but definitive answers were not given in all cases, nor are all legal issues explained here. It is imperative that agencies research these areas carefully for laws and regulations specific to State and local jurisdictions.

6 DEVELOP INITIAL POLICIES AND PROCEDURES FOR IMPLEMENTATION OF ELECTRONIC SUPERVISION

Determining which individuals to supervise electronically is an important early decision for administrators. Engaging stakeholders and conducting a needs assessment, as described in chapter 4, and considering State legislation discussed in chapter 5 provides some of the information needed to determine implementation strategies. The types of individuals to be supervised will influence the selection of technologies and the development of supervision policies and procedures. This chapter provides information for considering the development and implementation of an electronic supervision component.

PUBLIC POLICIES AND PREVALENT OPINIONS

When developing or enhancing a program component to supervise offenders electronically, planners must review public policies that may mandate, enable, or prohibit its use for various types of offenders. At the same time, planners must be aware of public sentiment about using electronic supervision on various offender groups. Sometimes the decision to place certain types of offenders on electronic supervision can be controversial. Therefore, it is important to include, in the needs assessment process, an attempt to gather and consider the viewpoints of a variety of community members. Agencies should consider the importance of public opinion regarding crime and justice policies. If for no other reason, public opinion data can provide an early warning about potential conflict areas.

The public's view of justice system sanctions tends to focus on whether they are too punitive or not punitive enough. With electronic supervision, for instance, there are some who may claim that these devices offer formal control agents greater potential to intrude on civil liberties as one feature of a surveillance society (or Orwellian future of technological control). On the other side, there are those who believe electronic monitoring is an example of a justice system that is too soft with offenders by only giving them a slap on the wrist. It is important to stress that electronic monitoring by itself is neither punitive nor rehabilitative. It is through human interaction and application of these technologies that they are defined. So, in agencies where officers are critically analyzing travel patterns and case management plans, GPS tracking can be a positive enhancement to the supervision period (see the Tennessee Board of Probation and Parole, 2007). However,

if offenders are not having the bulk of their time structured and monitored by a community corrections officer, GPS may only be an expensive piece of equipment when poorly implemented.

It is important to consider the public's view of justice system sanctions because community satisfaction should help any new program or tool succeed and provide for a more effective public education plan (Payne and Gainey, 1999). There is little research measuring the public's view toward electronic monitoring. However, in a 1993 study conducted with 1,000 households in Oneida County, New York, researchers found a high level of public support for electronic monitoring. Their findings included the following (Brown and Elrod, 1995):

- 94 percent did not believe house arrest violates an offender's privacy.
- 92 percent favored using electronic house arrest as a criminal sanction.
- 54 percent thought electronic house arrest could be used after an offender has served time in jail or prison.
- 31 percent felt electronic house arrest should be used instead of incarceration.
- 15 percent believed "serious" offenders should be placed on electronic house arrest.

In upstate New York, where this survey took place, planners might conclude that the public generally favored electronic supervision for offenders committing less serious types of crimes after a period of incarceration. Political rhetoric often suggests that the public wants tougher penalties for criminals, typically in the form of longer prison sentences. However, Cullen, Fisher, and Applegate (2000) found that the public's opinion of justice system sanctions is what they referred to as "mushy." They point out that there is a general support for long prison sentences and harsh punishment for violent and repeat offenders, but there is as strong of a desire for more community-based sanctions that keep certain offenders out of prison. It seems the general public is becoming dissatisfied with the huge spending that has occurred in the past thirty years on more aggressive policing strategies and institutional corrections. Instead, the public wants, and community corrections has the potential to deliver, justice-system sanctions that acknowledge to the offender, the victim, and the community that a wrong has been committed, and that formal (and possibly informal as well) measures are being taken to sanction the offender in such a way that he or she is better prepared to remain in the community. Electronic monitoring, when applied appropriately, may accomplish the public's desire for rehabilitative as well as punitive justice options that most effectively achieve public safety.

Unfortunately there is little research directly measuring the public's attitudes toward intermediate sanctions in general or electronic monitoring more particularly. Most of the public opinion data in the area of criminal justice tends to focus on policing, judicial practices, prison sentences, drugs, and the death penalty, with little research focused on community corrections. There are, however, several studies that have considered how *offenders* experience and/or view different types of sanctions. Ironically, there is a general impression that electronic supervision is a way to take it easy on offenders, but before deciding on the potential of electronic supervision tools it is important to know that offenders typically prefer to serve their time in prison or jail instead of being placed on community supervision. Offenders, it seems, prefer to "serve

out" their time instead of "walking out on paper." Joan Petersilia and Elizabeth Deschenes (1994, p. 8), found a similar result when researching intensive probation strategies in California, during the early 1990s, which led them to conclude that "at some level of intensity and length, intensive probation is equally severe as prison and may actually be the most dreaded penalty." Other researchers have also found that offenders, when given the choice, prefer to avoid community-based sanctions because they are believed to be more restrictive than completing a prison or jail sentence (e.g., Crouch, 1993; Spelman, 1995; Wood and Grasmick, 1999). At first glance, it might appear unimportant to understand the opinions of offenders regarding their punishment; however, knowing what offenders think of electronic monitoring can help improve the effectiveness, educate the public, ensure fairness, and institute sanctions that are perceived as substantial (Payne and Gainey, 1999).

Brian Payne and Randy Gainey (1998, 1999; Gainey and Payne, 2000) are two criminologists who have researched how offenders perceive their experience on electronic monitoring. These criminologists conducted in-depth interviews with offenders placed in a house arrest program with electronic monitoring and found that offenders experienced: (1) financial problems related to electronic monitoring, (2) strained familial relationships, and (3) physical distress due to the device (Gainey and Payne, 2000). Offenders went further to identify six dimensions of the electronic monitoring experience: (1) lack of privacy, (2) shamefulness/embarrassment, (3) disruptiveness (e.g., sleep interruption, limited leisure time), (4) social restrictions (e.g., lack of free to leave home), (5) workplace interruptions, and (6) restrictions on drug and alcohol use.

Gainey and Payne (2000) found that offenders do not only perceive electronic monitoring negatively, but some offenders acknowledged the benefits of the closer supervision. One offender stated "EM helped keep my life together." A different offender said that "[electronic monitoring] affected my life profoundly, in a good way, focused my attention on my drinking…I didn't take the law very seriously" (Gainey and Payne, 2000, p. 88). How should policymakers, administrators, and supervising officers interpret these findings? These findings suggest that electronic supervision is perceived as a serious punishment to many offenders, and is not an example of "going soft" on criminals. It appears, instead, that offenders perceive this tool as shameful, physically uncomfortable, and time consuming, and electronic supervision tools can be an added component of a supervision strategy for several types of offenders. This is not to say that electronic supervision components are the correct answer for all offenders supervised in the community, nor is this to suggest that any electronic supervision tool should necessarily be used at all.

Purposes, Expectations, and Staff Roles for Electronic Supervision Technologies

Whenever implementing new supervision components agencies should describe clearly the intended purposes, expectations, and staff roles. Incorporating an electronic supervision tool is no different. Without such initial work, any implemented electronic supervision tool could be ineffective as officers will not understand exactly why the tool is being added, what it is purported to accomplish, or how to use the device, not to mention dissatisfied constituents and wasted financial and human resources. This lack of forethought can also lead to purchasing/contracting with the wrong vendor,

failing to consider workload ramifications, officer burnout, and neglecting officer training needs (see Payne, DeMichele, and Button, 2008).

The purposes, expectations, and staff roles will vary depending on the needs and characteristics of the agency (and community) planning to incorporate an electronic supervision tool. Obviously, using ignition interlocks comes with completely different purposes, expectations, and staff roles compared to GPS tracking of sex offenders. Nevertheless, before incorporating an electronic supervision tool it is essential to define the device's intended purposes, expectations, and staff roles. These criteria will change depending on the (1) type of technology being used, (2) the offender population included, (3) local legal context, and (4) jurisdictionally specific issues (e.g., resources, needs, public opinion).

OFFENDER SELECTION POLICIES AND PROCESS

When selecting offenders for community supervision with electronic technologies, the program's purposes, expectations, and staff roles must guide the process. The types of offenders who will be supervised with electronic technologies must be carefully considered during the planning process. Figure 6a depicts a three-level, funnel-like decision-making process where each determination leads to the next, more specific one. In the section below, we will explore some of the different purposes, expectations, and staff roles seen in a few implementation sites in different phases of the justice process.

Place and Purpose of Supervision

Both the place and purpose of electronic supervision were discussed in chapter 4. For thinking about offender selection, it may be useful to develop a matrix. By selecting the intersection of the place in the justice system and the selected purpose of electronic supervision, the potential candidates begin to be narrowed.

Although defendants are guaranteed to be considered innocent until proven guilty, many are held in custody pending trial because the court believes they present a danger to the public or will flee the jurisdiction before trial. Meeting electronic supervision needs for pretrial release is going to be fundamentally different from other community release sanctions such as probation or parole. In the pretrial case, individuals are still defendants, yet to be tried for a crime as they await a trial (or other case disposition). Electronic supervision has the potential to increase victim safety through alert notifications, to reduce pretrial absconding, and to offer the justice system and the community increased safeguards that defendants will stay out of trouble while awaiting trial (Brown, McCabe, and Wellford, 2007).

The assessment for release often must be made quickly without the benefit of all necessary information. Therefore, mistakes may be made either in determining the dangerousness of a defendant or his or her likelihood of flight. Persons under the influence of psychoactive substances often are detained. If they have an addiction, their ability to adhere to the requirements of electronic supervision may be jeopardized. If persons who abuse alcohol or other drugs are released on electronic supervision, they should be drug free at the time of release and also should be subject to frequent and random

Erez and Ibarra (2007) found that the bilateral electronic monitoring tool increases the potential for domestic violence victims (at this stage they are alleged victims) to reclaim their space, feel safe in their own homes, and get on with their lives with some added sense of security.

drug and alcohol testing while in the community. Agencies should be cautious not to overuse electronic supervision at this point in the justice process. Many offenders are released routinely on their own recognizance or with bail. If the person ordinarily would be released on this status, they probably do not need to be electronically supervised. For those who need to be supervised more closely, they are more likely to comply with program conditions if they have ties to the community and would experience losses if they were detained (e.g., loss of employment, family relationships).

Much of the attention given to pretrial electronic supervision technologies comes from early work in the federal pretrial system, and the more recent development is the use of two-way notification GPS systems for domestic violence cases. Timothy Cadigan (1991), a Federal Pretrial Officer, provided some initial direction regarding establishing a program and developing policy for the use of an electronic supervision tool during the pretrial phase. When implementing an electronic supervision component, according to Cadigan (1991), it is essential to identify agency and jurisdiction needs and capabilities before selecting a contractor that can accommodate specific agency needs. Cadigan (1991) points out that although the electronic devices may have nearly the same functionality, some manufacturers or vendors may offer 24-hour troubleshooting or alert monitoring, while others have more limited services. Agencies should take the needs assessment process seriously to help select the most appropriate manufacturer or vendor. Once agencies identify their electronic supervision technology needs and have selected a manufacturer or vendor, they are able to identify training issues.

Written policies are needed to detail operational issues that explain the tool's purposes (i.e., why the device is being used), expectations (i.e., what the agency thinks this device will help them achieve), and staff roles (i.e., what are staff to do). Some specific issues to include are: (1) contact standards (e.g., frequency, method), (2) officer-defendant interactions (i.e., what happens during meetings), (3) who is expected to respond to violations (both day and night), and (4) addressing technological concerns (e.g., understanding of the device). Cadigan (1991) provides some suggestions for general concerns related to implementing electronic supervision technologies in the pretrial phase.

Edna Erez and Peter Ibarra have researched the effects of supervising domestic violence defendants with bilateral electronic monitoring devices. The central feature

of these devices is that they allow for communicating with the victim if the defendant ever comes within in a certain distance of the victim. This research does not focus on offender outcomes as much as the authors are concerned with the victims' "voice". That is, Erez and Ibarra (2007) found that the bilateral electronic monitoring tool increases the potential for domestic violence victims (at this stage they are alleged victims) to reclaim their space, feel safe in their own homes, and get on with their lives with some added sense of security. They identify the central purpose of pretrial electronic supervision of domestic violence defendants as facilitating "victim reentry" more than functioning as an evidentiary tool. Erez and Ibarra (2007, p. 118) found that "the victim can remain at home, but without the controlling presence that had previously organized her daily existence." And, the authors go further to point out that:

> *"the victim has a broader array of resources to activate in the event of need; she is not restricted to calling a police dispatcher lacking familiarity with her case, or seeking solace and protection in a personal support network. She can mobilize a variety of functionaries with personal knowledge of her identity and the intricacies of her abuse history"*

Pretrial is a difficult phase in the justice process because defendants have diminished constitutional rights, but they have yet to be convicted of a crime. In such situation, it is important to provide the least amount of formal restrictions of civil liberties in a way that also maximizes public safety. In addressing public safety in pretrial release programs, electronic supervision may be used to deter witness intimidation as well as other behavior that might create a public safety risk. Accountability also may be a goal; for defendants who cannot afford bail, release on electronic supervision is another method of holding them accountable for their behavior and their return to court. Another program purpose may include reducing populations in crowded facilities. Defendants released with electronic technologies can be supervised more closely to deter their absconding before trial. If they do flee before trial, their absence can be reported and court calendars can be cleared, thus avoiding the expenditures associated with failure to appear for court. It is important for agencies to clearly define the purposes and expectations as well as the attached staff roles of any electronic supervision component.

Figure 6a. Decision Making for Types of Individuals to be Monitored

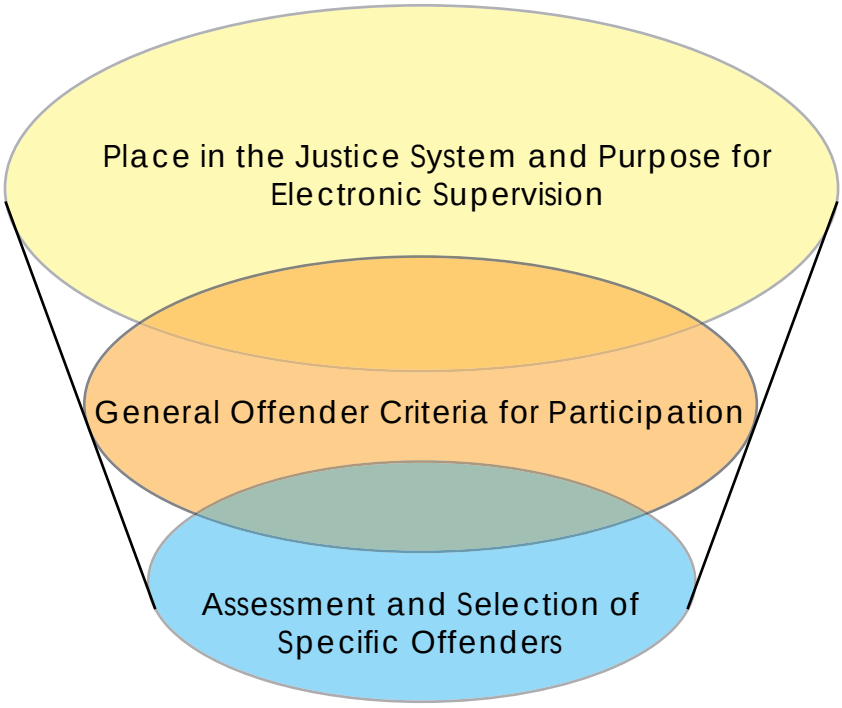


Table 6a: Decisionmaking Matrix For Selecting Place And Purpose Of Electronic Supervision

	Public Safety	Victim Alert	Offender Accountability	Offender Behavior Change	Reduce Facility Crowding	Save Money
Pretrial						
Probation						
Incarceration						
Parole						

Electronic supervision technologies have been used extensively by probation agencies in some areas. The rationale for using electronic supervision technologies for probationers might fit all of the purposes for using electronic supervision shown in table 6a. An offender who otherwise might be incarcerated may be sentenced directly to probation with conditions for electronic supervision to ensure public safety, alleviate facility crowding, or both. A domestic batterer or sex offender might be monitored to alert specific victims if the offender tries to approach them or to detect their encroachment into areas where possible victims might be found (e.g., pedophiles often are prohibited from going near schools and parks). Various electronic technologies may be appropriate to monitor offenders' compliance with court orders and treatment requirements (e.g., curfews, home detention, home incarceration, sobriety, employment).

Electronic supervision strategies also can be a facilitator for offender treatment. In preparation for entry into treatment programs, offenders supervised electronically may be able to adjust to more structured lifestyles and to avoid situations that would exacerbate their problems. Electronic supervision also assists in monitoring treatment attendance and compliance with treatment program expectations. Renzema and Mayo-Wilson (2005) conducted a meta-analysis of the research on outcomes of high-risk offenders and electronic monitoring. A meta-analysis, to put it simply, is a standardized (scientific) approach to evaluate existing research in a particular area. In this case, the authors looked at all the research on electronic monitoring, and concluded "that applications of [electronic monitoring] as a tool for reducing crime are not supported by existing data" (p. 220). Renzema and Mayo-Wilson (2005) only looked at research measuring recidivism, and did not consider a potentially broader use for electronic supervision during probation. A group of Canadian researchers (Bonta, Wallace-Capretta, and Rooney, 2000a) compared court-based and corrections-based electronic monitoring programs with probationers in Canada. Similar to other research, the Canadian study found little crime reduction effect for either type of electronic monitoring program, suggesting that electronic monitoring does little more than "net-widening" or increasing surveillance without altering underlying criminal attitudes and behaviors. Bonta et al. (2000a, p. 61) point out that electronic monitoring "added little value to more traditional forms of community control." They did find that offenders on electronic monitoring had more favorable attitudes toward staff (e.g., empathy, trust), and had significantly higher program treatment completion rates (see also Bonta, Wallace-Carpetta, & Rooney,

2000b). It is worth noting that Bonta et al. found a strong indirect effect when using electronic monitoring as offenders completing treatment were found to have significantly lower recidivism rates.

When offenders are placed on probation, officers have an assortment of possible responses to non-compliant behavior. Electronic supervision tools are an effective instrument that allows officers to vary the restrictiveness of supervision such that violating various conditions of probation could result in incorporating electronic supervision. For example, a probationer who repeatedly tests positive for illegal drugs might be placed on home detention for a period of time in lieu of revocation of probation or parole, or as an enhanced sanction for continued drug use as well as to limit his or her access to illegal drugs. It is important to point out that although electronic supervision tools can be used as a response to non-compliant offender behavior, these devices also allow officers to ease the restrictiveness to acknowledge that offenders are doing well on supervision (Gable and Gable, 2005).

If probation agencies use electronic technologies for supervising offenders, it is important that they have policies and procedures to respond appropriately to the information generated by the electronic supervision. Because of high caseloads, many probation agencies have difficulty providing just the basic supervision requirements and responses to blatant violations. The electronic supervision component of a probation program will generate a significant amount of information about the offender's behavior, and this information is worthless if agencies do not establish adequate procedures for processing the information (see Maryland Task Force to Study Criminal Offender Monitoring, 2005; Tennessee Board of Probation and Parole, 2007; Renzema, 1992). With the additional information generated by electronic supervision tools comes the responsibility to process and to take appropriate action (e.g., potential liability for negligence if appropriate reactions are not made).

Post-Incarceration

Release of some incarcerated offenders can be an effective way to reduce facility crowding and foster public safety simultaneously. It may save on correctional costs and also can be used as a means of offender accountability. Some ways incarceration programs use electronic supervision include monitoring offenders on work furloughs or those on prerelease status as they are making the transition to less restrictive forms of supervision. Some jurisdictions have replaced traditional work furlough programs with electronic supervision because, in essence, they provide the same function. Offenders are allowed to work and attend treatment during the day, but they must spend the night under supervision. Electronic supervision requires a curfew and provides surveillance to ensure offenders do not leave their residences during specified hours, thus saving the cost of 24-hour staff to do the same thing.

When used in these ways, programs should respond quickly to all violations. One advantage incarceration programs have in selecting candidates for electronic supervision is that generally they have had ample time to observe the offenders and to assess their potential for successful release with electronic supervision (Maryland Task Force to Study Criminal Offender Monitoring, 2005; Renzema, 1992).

Offenders granted parole may be released with a condition of electronic supervision as a means of monitoring their behavior and helping them make adjustments to life outside an institution. In some cases, earlier release of parolees with electronic supervision may be a way of reducing facility crowding, saving correctional dollars, or both. Parolees who have histories of domestic violence or sexual abuse may be monitored so their victims can be alerted if they are in danger. Electronic supervision also may be used as a sanction for parolees who violate other conditions of their release.

Criteria for Offender Participation in Electronic Supervision

The authority for determining eligibility and placing offenders in programs with electronic supervision may derive from legislation, court orders, or agency decisions. It is crucial that those responsible for making such decisions have clear criteria for selecting offenders to participate. Criteria for both including and excluding offenders from electronic supervision should be considered. Table 6b lists some of the inclusion and exclusion criteria that may be examined for selecting offenders for electronic supervision. These criteria are provided only as examples. There is no right or wrong set of criteria. Decisions for placing defendants and offenders in programs using electronic supervision must be made on a case-by-case basis with safety of the offender and the community guiding the ultimate decision.

There are no conclusive research studies or national guidelines that recommend consistent criteria for including or excluding offenders in programs using electronic supervision. Each offender must be examined carefully for participation in electronic supervision depending on the needs and technology to be used. The most important consideration is whether offenders are a threat to themselves or the community. For example, it may be unwise to release a misdemeanant domestic violence offender to live in the same home with the victim. However, a woman convicted of murdering her husband in self-defense may be assessed as posing a low risk to the safety of her family and the community. Furthermore, her family would benefit from her staying at home under electronic supervision so her children are not sent to foster care.

On the one hand, some jurisdictions view electronic supervision as an important tool to supervise serious violent offenders who are released from prison or jail on parole or under mandatory release conditions. This can provide an extra level of supervision for offenders who may otherwise pose a greater risk to the community.

On the other hand, some jurisdictions may choose to apply electronic supervision strategies to lower risk offenders. Some criteria should be established, however, that differentiates between offenders who would most likely serve time in the community safely without strict supervision, and those for whom electronic supervision would provide an added measure of offender accountability and safety to the community. Overusing electronic supervision for low-risk offenders may result in "net widening." The technology should not be used for its own sake, but rather for a rationally defined purpose such as increasing public or victim safety or holding offenders accountable.

Individual offender assessment and the program purpose for employing electronic supervision should be the most persuasive criteria used for determining whether to use electronic technology with a given offender. However, assessment and program criteria are likely to vary from one jurisdiction to another.

Another issue that must be considered is the type of offense committed. In some cases, legislation specifies types of offense categories (these were also discussed in Chapter 4) for which electronic supervision may or may not be considered. Offenders never should be placed on electronic supervision based solely on the type of offense with which they are charged or for which they have been adjudicated. Within each offense type, there will be a range of offenders, and several other criteria must be considered. Further investigation is required also, because offenders often enter guilty pleas for offenses less serious than the initial charges. However, given these caveats, there are some offense types that may be more appropriate than others when considering the offender's placement on electronic supervision.

Table 6b. Examples of Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
• Lack of serious criminal history.	• Significant criminal history.
• Willingness and motivation to comply with program requirements.	• Current or prior violent or sex offenses (unless as a condition of release to the community).
• Offender is primary caregiver for children or other family members.	• Inappropriate behavior while in jail or prison.
• Pregnant offenders.	• Failure in previous alternative correctional programs.
• Offender provides financial support to family.	• Offender will reside in the community with the victims (e.g., domestic violence or child abuse victims).
• Offender has medical needs that can best be managed in the community.	• Severe substance abuse or mental illness that limits offender's ability to control his or her behavior.
• Victim agrees to community release.	• Victim does not agree to community release.
• Offender can receive treatment (e.g., alcohol/drug, sex offender, batterers treatment) in the community.	• Offenders with advanced technical knowledge or who work for an electronic technology company.
• Reasonable expectation for victim/public safety.	

Sources: APPA Electronic Monitoring Working Group; Connelly, 1999; V. Dominguez, personal communication, April 11, 2000.

Assessment and Selection of Specific Offenders

Regardless of the types of offenders a jurisdiction selects for electronic supervision, individual offenders within that classification must be assessed for their appropriateness for the application. Case assessment and classification, as well as individual case planning are important aspects of pretrial and post-adjudication corrections programs. Gottfredson (1987) goes on to discuss decisions about individual offenders, especially those judgments that may involve the person's confinement or determine the context of supervision and interventions. Assessment and classification address multiple levels of decision-making, ranging from the individual offender, to the program or agency, and even to the wider jurisdictional level.

A process of assessment and classification is essential for matching offenders' risks and needs with the appropriate type of services along a continuum of justice alternatives. Two fundamental reasons for using a formal assessment and classification system are (National Council on Crime and Delinquency [NCCD], 1997, p. 4; Wiebush, Baird, Krisberg, & Onek, 1995, p. 174):

- Providing greater validity, structure, and consistency to the assessment and decision-making processes.
- A more efficient allocation of limited system resources by targeting the most intensive/intrusive interventions on the most serious, violent, and chronic offenders.

Resources are always limited, and classification systems help channel offenders into the least restrictive, least intrusive, and usually least expensive program resources that reasonably can be expected to control and change their behavior and protect the public. Offender classification systems also help agencies organize staff and other resources.

Assessment instruments are standardized tools comprised of a limited set of factors that are most relevant to the type of decision being made (e.g., treatment, incarceration, supervision). For effective case classification, these instruments should be administered to all offenders, and the results should be used to classify offenders according to pre-set criteria (Howell, 1995; NCCD, 1997; Wiebush et al., 1995). Effective classification requires prediction through which knowledge of past events and current circumstances are used to form expectations of future behavior. Prediction is really a summary of the past to guide future decisions, assuming there will be a degree of consistency over time. Assessments use demographic, criminal, and behavioral characteristics to "sort" offenders according to their anticipated level of misconduct (Wright, 1988).

Actuarial methods of offender classification rely on probabilities to discriminate among potential rates of future behaviors or events, while clinical methods depend on the experience and more subjective judgments of the individual assessor. Predictions are based on objective, standardized, and empirical risk measures, including historical data on offender characteristics and outcomes (Boone and Fulton, 1995; Clear and Gallagher, 1983; NCCD, 1997). In other words, an offender's future behavior is forecast based on the known outcomes of a similar group of offenders. This is why the evaluation of outcomes for offenders in programs using electronic supervision is so vital for the field.

There are many types of risk and needs assessment instruments being used today. Traditional assessments typically looked only at static factors, such as the number of arrests, age at first arrest, education level, employment, and the like. While this is valuable information, research has shown it does not provide predictive information concerning the risk of placing an offender in a community program nor does it provide guidance for case planning. Offenders with combinations of certain background characteristics (e.g., antisocial personality disorder) and other more malleable (changeable) characteristics (e.g., substance abuse issues) are more or less likely to commit another violation or crime. Most of us refer to these offender characteristics as **risk factors**, and we are aware that validated forms or instruments exist to help officers assess the cumulative impact of such risk factors.

Before moving on, it is important to understand that risk assessment instruments do not measure harm or potential trauma. Risk assessment instruments are designed to capture statistical probabilities of the occurrence of a new crime, not to reveal the amount of potential harm to a victim or the community. Several assessment tools now include dynamic factors such as neighborhood, types of friends, employment stability, and family relationships that help with predictions and case planning. These more comprehensive assessments identify programming such as chemical dependency treatment, education, vocational training, or employment options that will assist the offender with behavior change (for more on risk assessments, see Craig, Beech, and Browne, 2006; Hanson and Thornton, 2000; Hanson, Scott, and Steffy, 1995).

Agencies should use risk and needs assessment tools validated for the population with which they are used. If one has not already been selected, existing instruments can be adopted for a specific program.

If necessary, the points or weights assigned to certain items may be changed to more accurately reflect the characteristics correlated with recidivism. Additional items also may be added to a tool if they are found to occur with substantial frequency among the sample population (NCCD, 1997).

Program policies and procedures always should allow mechanisms for overriding the case classification structure if personnel believe an offender to be more or less of a risk than is indicated by the risk assessment instrument. Criteria should be set in written policies for making such departures from the classification protocol. Some jurisdictions have also developed a process using selection panels consisting of representatives from criminal justice agencies as well as residents. They feel this method better ensures both criminal justice system personnel and public buy-in.

Other Selection Factors

Beyond the issues discussed previously in this chapter, offender selection must consider the individual's living situation.

Residence Requirements. First, the offender must have a stable home in which to live while being supervised electronically. Stable residences may include his or her home with partners and children, living with parents, residing with

roommates, or living singly. Whatever the configuration of those residing in the home, it should be a stable setting so the offender will be able to remain there throughout the electronic supervision period. If a living situation becomes unstable, authorities must act quickly to facilitate change to another stable living situation (Connelly, 1999).

The physical location must have consistent electrical service (Connelly, 1999). There are some electrical and home conditions that may interfere with some electronic technologies, and the home must be assessed for these. Frequent power surges or poor household wiring could disrupt the signals of the technology as could interference from radio waves. Metal in the home (e.g., mobile homes constructed of metal or metal furniture) also may limit the range of the transmitter (Connelly, 1999).

Telephone Services. Many in-home electronic supervision systems — such as some automated reporting, programmed contact, continuous signaling, and victim alert systems — rely on the use of a telephone, so the offender must have access to phone service. Additional telephone services, such as call waiting, call forwarding, answering machines, and modems often must be disabled during the electronic supervision period, as they may interfere with the technology used. Some technologies make automated calls periodically. Phone lines must be free enough that these calls can go through.

Some technologies do not require telephone services. With continuous signaling systems, the offender has a receiver in the home that monitors and records each time he or she enters and leaves the home. However, rather than this information being automatically downloaded to a 24-hour monitoring center as it occurs, the offender may bring the receiver to the supervision agency on a scheduled basis (e.g., daily, weekly) to download the information. This "passive" monitoring is recommended only for low-risk offenders when immediate notification of program compliance is not required. Other technologies also are available that do not rely on household telephone service, such as those using cellular telephones or systems in which supervisory personnel determine the offender's presence or absence as they drive near where he or she is supposed to be (Renzema, 1992).

Cooperation of Household Members. Supervision of offenders using electronic technologies will affect others living in the same household. As mentioned in the previous section, electronic supervision will demand cooperation with telephone requirements and may limit the use of phone lines and services by all members of the household. This can cause frustration by the offender and all others in the home, so a high level of understanding and motivation to cooperate is needed (Renzema, 1992).

Because some electronic supervision program components require the offender to spend most of his or her time (other than working) in the home, there are ramifications for others living at the same residence. If there is animosity or resentment between household members, it may be exacerbated because of increased contact with the offender. On the other hand, some studies have indicated that electronic supervision did not affect family relations negatively, and may even have a positive influence (Renzema,1992).

POLICIES AND PROCEDURES: OFFENDER MANAGEMENT ISSUES

Effective programs or practices start with an identified need, and motivated staff who make needed recommendations for organizational change to facilitate the implementation and maintenance of new programs or practices. The National Institute of Justice funded Noblis' Center for Criminal Justice Technology to develop a report to help community corrections personnel and other stakeholders to gain a greater awareness of GPS for community supervision. Tracy Brown, Steven McCabe, and Charles Wellford (2007) conducted site visits to seven community supervision agencies using GPS, surveyed and interviewed practitioners and vendors, and reviewed secondary data sources. Their report provides the most thorough process and implementation evaluation of existing GPS systems to date. They identified six core areas to consider when utilizing GPS tracking: (1) program and policy design, (2) evaluation and use, (3) funding and cost issues, (4) staffing, (5) operations, and (6) equipment inventory and maintenance. It is beyond our needs to fully discuss each of these core areas here, but their findings and discussion of program and policy design issues offer important direction to agencies considering incorporating GPS or other electronic supervision tools.

Brown et al. (2007, p. 2-2) found seven key features to consider when implementing a GPS system that can help steer implementation of any electronic supervision component. These features, first, require an agency to make the *decision to implement* GPS or another electronic supervision tool, which can be fostered by having other electronic supervision tools in house already such as a home arrest program with RF monitoring or an alcohol monitoring program including ignition interlock. The previously existing electronic supervision component may reduce the "learning curve" that exists when adopting new practices. It could be that new legal changes necessitate GPS or an administrator may recognize the opportunity to enhance a specialized unit such as a sex offender or domestic violence offender unit. Regardless of the specific motivation for implementing any electronic supervision tool, agencies must have clearly defined and written *objectives for the tool*—the second implementation feature identified by Brown and her colleagues. As was mentioned earlier, the reasons and expectations for incorporating an electronic supervision tool are highly contextual and depend on specific agency needs, but some agencies believe that these tools can provide additional accountability, deterrence, punishment, or protection to the public.

Tied to the objectives planned for the new technology is the third feature, *legal and judicial factors*. These factors can influence privacy concerns (e.g., data sharing issues), warrant issuance (e.g., structures investigations), and judicial discretion (i.e., judicial support). A common concern for most all agencies is the fourth feature: *liability concerns*. Electronic supervision tools provide officers with more information about an offender (or defendant), which does not come for free to an agency. With this increased information, as Brown et al. (2007, p. 2-5) aptly point out, comes more responsibility. There site visits revealed that agencies had numerous questions related to potential liability concerns, such as: what if a new crime happens and the agency failed to respond to an alert? What constitutes a reasonable amount of time to respond to an alert? When should an officer notify a victim? These are only a few of the questions agencies are struggling with regarding potential liability, but it is essential that agencies ask these questions (and others as well) before implementing any electronic supervision tool and provide thorough written direction and training for officers.

In their report, Brown et al. (2007) also point out the need for agencies to make important technological decisions. These include careful selection of the *equipment type* and *vendor contracts*. Agencies should shop around to be sure they understand what sorts of technologies and capabilities are available. Vendor contracts are an important issue for agencies to consider before implementing an electronic supervision tool. Vendors, obviously, are for-profit companies that have a self-interest in your agency using their product. This is not to say that vendors are dishonest or uninterested in helping your agency achieve its desired results, but only that the old adage of "buyer beware" is important to follow here. Agencies should clearly define what role they expect any vendor to have regarding such issues as how data will be stored, retrieved, and analyzed. The last feature of implementation, following Brown et al. (2007), reflects the need for "clearly defined *policies and procedures*" for a successful design of any electronic supervision component. Some important issues to include in written policy and procedural documents are the conditions of supervision, exception and violation verifications, investigations, and notification.

Conditions of Supervision

Agency personnel must make decisions about the electronic supervision rules or restrictions for offenders. Sometimes these will be standardized for all offenders in the program and other times they will be individualized based on each offender's situation. For example, rules and restrictions for different types of electronic supervision equipment might include:

- The frequency with which offenders must report using automated reporting systems (e.g., weekly, monthly, quarterly) and the type of information they are required to supply when they report (e.g., change of address or employment, attendance at treatment).
- The frequency with which offenders undergoing remote alcohol detection must use the test devices and whether this will be on a scheduled basis (e.g., every time they return home) or on a random basis (e.g., periodically during the day they are alerted to take a test), or both.
- Schedules for offenders placed on home curfews, including times they may leave home for work, treatment, and other authorized activities and when they must remain at home.
- Inclusion and exclusion zones for offenders using location tracking devices.

In many cases, combinations of these last three areas may be applied to the same offender, as blends of equipment may be able to perform several functions. While the identifying information on each offender described previously is static (unchanging information), the rules and restrictions may be changed according to program and offender needs. For example, schedules often must be changed to accommodate fluctuating work hours, changes in treatment schedules, and the like. Exclusion zones also may be changed if, perhaps, an offender's victim changes residences or jobs. Programs also may want to increase or decrease the frequency with which offenders on home curfews are checked as rewards or sanctions based on their compliance or noncompliance with program rules.

The central monitoring computer (or software) must be programmed to receive the data transmitted by the equipment the offender wears or uses to organize it and compare it to the rules and restrictions that have been entered for each offender. As long as the information received from the equipment the offender is using shows compliance with the schedules, sobriety, and inclusion/exclusion zones for the offender, the central monitoring computer records and stores the information and generates routine reports (daily, weekly, or monthly, as preferred by agency personnel) that indicate the times data were collected and the results (i.e., compliance) for each. The most crucial issue for decision-making for electronic supervision systems, however, is how information about exceptions to or violations of the rules and restrictions are to be handled.

Exception, Violation Verification, Investigation, and Notification

Exception events occur when the computer detects information from the equipment used by the offender that does not agree with the information entered in the computer for that offender (e.g., unauthorized leaves, entering an exclusion zones, use of alcohol) as well as information about equipment functioning (e.g., tampers, power loss, disconnected telephone). These are sometimes referred to as "alerts." The reporting of exception events, methods of verifying or gathering additional information about those exception events, and notification of suspected violations are all important considerations when planning a strategy that uses electronic supervision technologies. The strategy affects the choice of electronic supervision equipment and services provided to best accomplish the program purpose. Most vendors offer standard verification and notification procedures, but usually they also can provide modified processes designed to meet specific program needs. However, it is absolutely necessary to specify agency needs prior to procuring electronic supervision services and to make sure potential vendors can meet those needs. There are several steps and methods for exception event processing discussed in the following sections.

USE OF DATA: MANAGING THE INFORMATION

Whitfield (1997) writes that electronic supervision equipment "produces an extraordinary amount of data that has to be organized into ordinary, checkable, understandable patterns. Receiving this much information requires a high degree of accuracy and organization in terms of both input and output scrutiny" (p. 89). There are an amazing number of "moving parts" and an incredible volume of information that must be organized for effective use of electronic supervision systems. At its most elementary level, equipment worn or used by the offender produces particles of information that are transmitted to a central monitoring computer. The computer is programmed to receive, organize, and respond to the information based on data that has already been entered about individual offenders. The information then is accessed by people who are responsible for making decisions about how these data should be interpreted and used. Sometimes, additional computers are involved in this information management process, including computers at agency offices or portable computers used in the field that receive information from the central computer. The monitoring computer also may send information using telephone, pager, or fax communication systems. Agency staff should familiarize themselves with the protocol of the monitoring center so they know how all this information is processed and reviewed. Agencies should require they review and approve a quality control and auditing plan from the monitoring agency (offender data issues are covered in Chapter 8).

Initial Data Collection

Knowing the type of offenders to be supervised and the program purpose, the next phase of program decision-making is what data will be collected. Data collection begins long before the equipment is installed on the offender or in his or her home, and several important decisions must be made at this beginning point. Not only is the initial data collection important for later processing of and responding to information generated electronically about offender activities, but it is also important for program evaluations (a topic that is discussed in greater detail in chapter 11).

Program personnel must determine what basic information is needed about each offender. Much of this information is already collected during the program intake processes. However, a decision must be made about what information will be entered in the monitoring computer and in what format. This often necessitates designing forms (both paper and for the computer) for entering the data. In some cases, agency personnel enter data about program participants directly into a computer, and it is conveyed to the central monitoring computer. In other cases, the information is handwritten on a form and sent to the monitoring center where it is entered by monitoring center personnel. However it is done, the enrollment process should make swift and easy completion possible. It is vital that information be entered on a timely and accurate basis so that no delays or mistakes cause problems in the operation of the system. Basic identifying data on each offender should be collected and entered in the computer, including, but not limited to: name, age, sex, race, address, telephone number, legal history, present offense, and the like.

USING DATA FOR PROGRAMMANAGEMENT

Besides the primary supervision purposes of monitoring services, there are some other considerations to be made when determining the type of and arrangements for these services or developing agency-based computer capabilities. These include data storage and equipment inventory.

Data Storage

Agencies initiating electronic supervision systems should be aware that large volumes of data will be generated. Decisions must be made about how long data should be kept; when, how, and how much data should be purged; and how archived data will be accessed if needed. Should information be maintained by the monitoring center only while the defendant or offender is being supervised, or should information be maintained much longer? This is an especially important issue for juvenile offenders whose records may be expunged when they reach majority age. Decisions also will need to be made about whether data are maintained by a contracted monitoring service or transferred to the agency for storage. Even electronic storage of a significant amount of data can require additional resources, and this needs to be planned as the program is developing. There also should be procedures in place for authorizing (or not authorizing) data to be purged from monitoring center files. This may be automatic, as in the case of program policies that require purging data at a specific time after the offender is removed from electronic supervision. In other instances, the agency may prefer to be notified by the monitoring center when a case has been inactive for a certain period, and then to have staff authorize that the data be purged or maintained. Furthermore, procedures should be in place for retrieving archived data. For

privacy purposes, a method should be in place that protects all parties involved from inadvertent disclosure of confidential information.

PROGRAM INTEGRITY

There is a lot of discussion of what "experts" refer to as evidence-based practices (see Pfeffer and Sutton, 2006) throughout service-oriented organizations. Most people working in or around community corrections have heard someone mention that a program or practices is "evidence-based." There is no doubt that the evidence-based practices literature (e.g., Andrews et al., 1990) has forced many policymakers, administrators, and line-staff to question some of their current practices and to adopt new ones. These practices, for the most part, tend to provide agencies cost-effective mechanisms to reduce the likelihood of a new crime or violation (or some other outcome). In the race to adopt the most cost-effective practices, some agencies have decided to implement practices that have been found to be effective *somewhere*. Much of the evidence-based practices literature is dependent on outcome studies, which may tell an administrator that offenders receiving a certain treatment (i.e., the practice or program being measured) did better than similar offenders not receiving the treatment. This does not sound like enough information to make a decision to adopt a new practice.

Agencies need to know more than offender outcomes. Quantitatively measured offender outcomes tell only one part of the story needed to consider before adopting an evidence-based practice. Edward Rhine and his colleagues at the Ohio Department of Rehabilitation and Correction (Rhine, Mawhorr, and Parks, 2006) made just this argument as they warned agencies about moving too fast when adopting programs labeled evidence-based due to optimistic outcome studies, without considering process evaluation and program integrity. "All too often," according to Rhine et al. (2006, p. 349), "modifications are made when implementing the well-known 'what works' principles driving effective correctional programs to accommodate fiscal, organization, or administrative pressures." These modifications change the program or practice being adopted from the one that was originally evaluated and labeled evidence-based.

Researchers from the University of Cincinnati (Lowenkamp, Latessa, Smith, 2006) conducted a study to determine the impact of design and implementation of a halfway house program for parolees. These researchers used the Correctional Program Assessment Inventory (CPAI) to measure program integrity. This instrument utilizes staff surveys and formal data from the state offender databases, and allowed Lowenkamp et al. (2006) to see if there is any relationship between offender outcomes and program design. Lowenkamp et al. (2006, p. 214) summarize their findings:

> *"Overall this research indicated that there is a fairly strong correlation between program integrity (as measured by the CPAI) and reductions in recidivism. More specifically, the analyses conducted here indicate that program implementation, offender assessment, and evaluation are all important in determining the effectiveness of a correctional program...Specifically, the core principles of risk, need, and responsivity would predict that the identified factors are important in developing correctional programming that is effective in reducing recidivism rates."*

The point here is for administrators to understand that having an implementation strategy that clearly details in writing how any new program or practice is to be implemented improves their chances for having a successful intervention (Fixsen, Naoom, Blasé, Friedman, and Wallace, 2004; Gendreau, Goggin, and Smith, 1999; Lowenkamp et al., 2006; Mhalic, Irwin, Fagan, Ballard, and Elliot, 2004; Rhine et al., 2006). Some organizational change literature highlights that many practitioners interpret "implementation" as meaning that there are going to be changes at the system, organization, program, and/or practice levels. Fixsen, et al. (2004, p. 5) provide a detailed review of implementation literature, and concluded that:

> *"implementation is defined as a specified set of activities to put into practice an activity or program of known dimensions. According to this definition, implementation processes are purposeful and are described in sufficient detail such that independent observations can detect the presence and strength of the 'specific set of activities' related to implementation."*

Change often causes staff concern and frustration that could lead to burn-out and ineffective practices.

In community corrections, ironically, there is much talk about "stages of change" in reference to offenders, but rarely do administrators ask the same question of the agency in which they work.

CONCLUSION

This chapter examined a range of issues related to the selection of defendants and offenders to participate in electronic supervision program components. It emphasized the need to set selection criteria that correspond to public policies and community and professional views. The selection policies and process may vary according to the part of the justice system in which electronic supervision is being implemented and the purpose for electronic supervision that is adopted. Criteria should be developed by the program for both inclusion and exclusion of offenders. Offense types to be accepted for or prohibited from program participation must be considered carefully and based on State laws and local issues. Each offender should be assessed for appropriate placement in a program using electronic supervision strategies. Besides personal factors, including risks and needs, the offender must have a stable residence that will accommodate the electronic supervision equipment and telephone service, if needed. Other members of the household also must be cooperative with the restrictions required for use of the equipment.

7 THE PROCUREMENT PROCESS

Having made decisions about the purpose, goals, types of supervisees, and the best technology to use for supervising people electronically, the next step of the process is to procure the equipment and services needed. This chapter examines the procurement process, first providing an overview of the electronic supervision technology industry and then turning to specific procurement strategies.

INDUSTRY OVERVIEW

Understanding the electronic supervision industry is the first step toward making good choices about the selection of equipment and services. Although it seems underutilized when compared to the number of people being supervised in the community and when compared to its use for offender supervision in other countries, the electronic supervision industry has grown significantly since its inception in the 1980s. The extent to which electronic technologies are used to supervise people in the community is relatively uncertain. There is no national database that tracks and records the use of electronic supervision technologies. There are several sources of information about the number of electronic devices in use or the number of offenders being supervised electronically, but each of these has its drawbacks and none is considered accurate. This section explores the numbers and trends in the use of electronic supervision tools to provide a general picture in the growth of the industry, but readers are cautioned about the possible limitations of these data.

A Growing Industry

The first steps that justice system agencies took into the electronic supervision arena were tentative ones. Isolated agencies here and there decided to try the equipment, and usually employed it with only a handful of offenders. Over time, the numbers of agencies and offenders using the equipment has grown substantially from its beginning applications, even though only a small fraction of the criminal justice population are being supervised with electronic technology.

In 1986, only 95 offenders throughout the United States were subject to electronic supervision (Tonry, 1997); today more than 100,000 defendants and offenders are estimated to be supervised with the aid of electronic technologies.

However, there is no reliable national data collection source that provides comprehensive information about the use of electronic supervision equipment, and many resources do not include all types of technologies (e.g., automated reporting systems) or do not clearly define the technologies that are included.

Growth patterns can be discerned from the statistics that do exist, but a full picture of the extent and types of uses of electronic supervision is elusive. This is only partially due to people assuming electronic monitoring is only radio frequency equipment. The Bureau of Justice Statistics reported, upon special request, that in 2000, the latest year data was collected, 19,009 probationers were reported on electronic monitoring and 14,916 parolees were reported on electronic monitoring. In *Prison and Jail Inmates at Midyear 2006,* BJS (Sabol, Minton, and Harrison, 2007) reported there were 10,999 jail inmates supervised outside of a facility by jail staff with electronic monitoring. While these data are useful for looking at the distribution of electronic monitoring among post-adjudicated adult offenders, they should not be viewed as exact representations. Also, it is important to notice that the only category BJS has for collecting information about those on electronic supervision pertains to electronic monitoring, not to electronic supervision more broadly. Currently, there is no way to know how many offenders are being supervised with electronic supervision technologies. What is obvious is that electronic supervision is fast becoming a central component of community supervision, and the justice system as well.

Capturing social reality *perfectly* is rarely done. Instead, researchers try their best to get as close as possible to knowing the true existence of some social phenomenon. Simply, it is not possible to know the exact number of individuals supervised with electronic supervision technologies at any given point in time. It is possible, however, to uncover the general *pattern* and at least a close approximation of defendants and offenders supervised with electronic supervision technologies.

A Competitive Environment[11]

Despite its relative youth and the shortage of capital that has afflicted many of the equipment manufacturers and service providers, most businesses in the electronic supervision technology industry maintain ethical business practices and generally responsible behavior, although there have been some exceptions. However, personnel involved in the electronic technology industry may not have first-hand knowledge of the criminal and juvenile justice systems, and agencies need to pay special attention to what is sold to them.

Nearly all electronic supervision vendors are for-profit businesses. Most companies have an understandable interest in their own bottom line; at the same time, they may not fully understand the type of individuals supervised with various electronic supervision tools nor the practices and equipment required to effectively supervise such individuals. One criminal justice professor at the University of Northern Kentucky, Robert Lilly, identifies this very issue as he says that vendors are "for- profit, not [for] rehabilitation." This does not suggest that vendors necessarily lie or deceive agencies, but rather "vendors have never asserted that they were in business to rehabilitate offenders, and for this reason, they cannot

11 Marc Renzema, a member of the Working Group that guided the development of this document, contributed to the first edition of this section.

be faulted for being disingenuous" (Lilly, 2006, p. 97). Some criminologists refer to the growing privatization of various justice system functions and corporations selling related equipment as forming part of the *criminal justice-industrial complex* (see Christie, 2000; Lilly and Deflem, 1996). Lilly's article describes questionable practices by several of the largest electronic supervision vendors that enable some of these corporations to make hundreds of millions of dollars collectively, without providing adequate supervision services. Again, this is not to say that vendors are bad or will try to take advantage of potential customers. Rather, it is important for you to understand that these companies form a for-profit industrial field that is not established to rehabilitate or provide public safety. They are interested in profit, and you should be careful when procuring equipment.

You should look at implementing an electronic supervision component as a serious long-term investment, which requires taking time to consider your options, check references, verify promises, and test equipment yourself. With that said, some of the common and uncommon problems that have occurred are discussed in the following sections and are provided to help you enter wisely into the procurement process.

ELECTRONIC SUPERVISION UNITS IN SERVICE/CLIENTS MONITORED

Company Stability

No electronic supervision technology companies are known to have suddenly locked their doors and left users in the lurch. More common has been a period of gradually deteriorating service followed by acquisition by another company. Of the 16 electronic monitoring equipment manufacturers listed in the Spring 1989 issue of *The Journal of Offender Monitoring*, only five continued in operation and only two had significant market shares by the spring of 2000. Users need to protect themselves through a combination of (1) pre-purchase investigation, (2) performance bonds, (3) proof of company liability insurance, and (4) exit clauses in contracts. Exit strategies also should be considered before contracting: If the equipment is to be purchased, could it be supported by vendors other than the original manufacturer? How long would it take to ramp-up with an alternative provider?

Low-Balling

Manufacturing companies and service providers may have urgent needs to establish market share or to get new equipment into the field and may cut prices to the point that service cannot be sustained. When maintenance, system upgrades, and additional training are needed, they may not be forthcoming. A particularly troublesome scenario occurs when an agency sloppily draws a contract and awards it to the lowest bidder and then expects the vendor to throw in the elements forgotten in the original contract but necessary to make electronic supervision work. The agency needs to wait until the next fiscal year to obtain money for the forgotten elements, and the vendor is making precious little profit or even taking a loss. Consequently the electronic supervision program component deteriorates or fails. Price alone should not be the deciding factor in awarding contracts. Equipment reliability, company stability and service provision must be considered.

"Wiring" Bids

Vendors are generally only too happy to help users develop bid specifications. However, when one accepts help from vendors, the technical specifications may be drawn in a way that would exclude other vendors. Taking the general approach of bidding for a *function* rather than equipment, and relying on the information in this publication, as well as other publications by the American Probation and Parole Association, the American Correctional Association, and the International Community Corrections Association can greatly reduce this problem. *The Journal of Offender Monitoring*, especially in its annual electronic monitoring survey showing common capabilities, is another helpful resource. Another excellent resource, funded by the National Institute of Justice, is the Electronic Monitoring Resource Center that acts as a repository for numerous publications, RFPs, policy and procedural documents, and other information related to electronic supervision. The website for the resource center is: https://emresourcecenter.nlectc.du.edu/ and those interested in using this electronic resource will need to apply online for a password as the center is only available to law enforcement and corrections personnel.

Another ploy has been to encourage agencies to write bids for a mix of equipment offered only by a particular vendor, to win the bid on that basis, and then to attend to and service only the core equipment. This is advantageous to the vendor because the way the contract was written, lack of performance by the "supplemental" equipment is not cause for voiding the whole contract.

Lies and Distortions about Company Capabilities

When a company says, "We have 10,000 units in the field," the meaning may be closer to, "Since day one, we've shipped 10,000 units." Of those 10,000, only 5,000 are currently usable and because of spares and program glitches, only 3,000 are currently in use today on offenders. "Free training and free upgrades" may have unspoken qualifications of "when we get around to it" or "when we can." A monitoring center with "back-up power" can mean anything from a $100 uninterruptible power supply good for 15 minutes to a $20,000 diesel generator. Claims of system back-up were not true in one well-known case. The company had back-up hardware but did not run it because of staffing problems; when hardware failed, it took many days to put all of the monitored offenders back onto the system. The ability to maintain continuous operations through backup capabilities has proven to be problematic for more than one vendor.

Other instances of questionable behavior have involved shipping equipment before adequate testing and announcing new kinds of products as much as two years before beta-testing so that users would wait for promised products from an established vendor rather than purchasing from a newer company that was already producing and shipping equipment.

In conclusion, *caveat emptor*: Let the buyer beware! Although most companies and their representatives are honest and forthright, the problems in buying electronic supervision equipment or services are not significantly different from buying other technology. Agencies should consider the six points below when obtaining electronic supervision technologies:

1. Specifications need to be set in detail and with care.
2. References need to be checked with line personnel who are operating the equipment, not just with the head of the agency.
3. The current financial health of the manufacturer and provider also needs to be determined.
4. Claims need to be verified.
5. Checks and balances and back-up systems need to be in place.
6. Be aware of the intense competition that exists for vendors and how this may affect business practices.

PROCUREMENT PROCESS

The foregoing section is provided not to discourage nor worry potential consumers, but to recommend that agencies enter into the procurement process wisely. Work is required to ensure that the process operates smoothly and that the agency obtains the most appropriate equipment and services for its electronic supervision needs. There are several recommended steps in the procurement process that will be discussed. Following that discussion, examples of elements for requests for proposals are provided.

Procurement Rules, Regulations, and Laws

States and individual agencies operate under laws, rules, and regulations about how purchases may be made and how they may enter into contracts for services. It is extremely important that agency personnel seeking to purchase, lease, or rent equipment or engage in contracts for services become familiar with and follow these procurement policies carefully. If such policies are not adhered to, then time, money, and effort may be wasted unnecessarily, and any resulting agreements may be illegal. Agencies or personnel then may be liable for procuring inappropriate equipment or for penalties for breaching contracts when procurement policies are not followed. Further, vendors may suffer losses for work they have done in good faith that is not acceptable at higher agency or State levels.

On the other hand, while the role of purchasing is important to ensure that the procurement process is followed in a legal and fair manner, agencies procuring the equipment and services should make the final decisions. Establishing an electronic supervision component is far different than purchasing a copy machine or telephone system. There is *no substitute for public safety, and the lowest bid is not necessarily the best*. Too often, a separate purchasing department is shaping the content of a Request for Proposals (RFPs) and selecting the successful bidder, even when its decision is contrary to the desire of the corrections agency or contrary to good correctional practice. In the best case scenario, agencies should make an effort to have final control over the RFP and the purchasing decision, with input from the purchasing department on the process only. At the very least, agencies should actively provide input into the bid specification development and purchasing decision.

Imel and Hart (2000) suggest the first three of the following four options to investigate for a procurement process:

- Competitive procurement through which the agency develops specifications and issues an RFP.
- Noncompetitive procurement through which agency policies may allow for sole source procurement or contracts for operational services. Sole source procurement may be used when a vendor has previously supplied similar goods or services to the agency and the intended procurement is for comparable items. Contracts for operational services, such as telephone service, may not have to go through a competitive bid service. However, each agency has its own requirements, so personnel must check these and adhere to them.
- Cooperative purchasing through which smaller agencies benefit from another agency's competitive procurement process. For example, if a State has a contract with a vendor, a local agency may be able to purchase through the State's contract.
- Finally, agencies may want to go through a pilot process to determine exactly what type of equipment and services work best for their programs. A formal RFP process may result in a contract that does not work for an agency if the agency does not fully understand its needs and the details of the technologies available. Prior to spending the time and money on a formal process, a pilot project will allow agency staff to try different scenarios and equipment and then develop an RFP for its ongoing needs.

Of course, many agencies' procurement guidelines require that they obtain equipment and services using an Invitation to Bid. In these instances, great care should be taken to ensure that the specifications used *define the minimum requirements* without unnecessarily eliminating viable competitors. Furthermore, care must be taken to ensure that all costs are considered in the responses. For example, one vendor's battery might cost $15.00 but is only replaced every two years of operation and can be replaced without destroying the strap or clips. Another vendor's battery may cost $5.00 but needs to be replaced every year, and replacement causes the strap to be destroyed and requires new clips resulting in a cost of $20.00.

The bottom line is to know your agency's purchasing policies and comply with them carefully to avoid potential delays and legal problems. Outfitted with this information about the procurement laws, regulations, and policies under which your agency operates, there are two major phases in the procurement process:

- Initial Decisions.
- The Purchasing Process.

The components of these phases are discussed in the remainder of this chapter.

Initial Decision

Define Program Needs

Before thinking about or looking into equipment and other aspects of electronic supervision, agency personnel must clearly define their practice and program needs. Precisely specifying needs is required to prepare an appropriate request for proposals that will allow vendors to tailor their bids to meet practice and program requirements. It is vitally important that this not be influenced by a particular brand of equipment, a specific vendor, or other market considerations. Following the recommendations in previous chapters of this document will assist program personnel in thinking through the issues that must be determined. Some of the important areas for consideration include:

- Target population — What type of people will be supervised electronically, and based on present and projected populations, how many are likely to be included in the electronic supervision component of the strategy?
- Type of equipment — What type of electronic supervision will be needed for the selected target population? Do they need programmed contact, continuously signaling equipment, GPS, remote alcohol testing, ignition inter-lock systems, or other types of electronic supervision?
- Service level — Given the target population and the type of equipment needed, what level of service is required? How should staff be notified of alerts or violations? Should notification be done by phone, fax, pager, e-mail, or other methods? How frequently are reports on individuals needed? How often must agency reports be provided?
- Research and evaluation — What type of information does the agency need to track for research and evaluation purposes?
- Upgrades — If an overall strategy is already in place, are changes in the strategy planned or is upgraded equipment needed?

Gain Stakeholder Support

In Chapter 4, the value of involving stakeholders in the planning process for using electronic supervision technologies was emphasized. It is also vital to maintain their involvement during the procurement process. The person(s) preparing the request for proposals and handling other aspects of the procurement process is likely to need the support, expertise — and probably signatures — of others in the agency. The agency's procurement process may require the approval of key individuals as various steps are completed. Keeping stakeholders informed of the operation and its progress is crucial for a relatively problem-free procurement process.

Determine the Parameters of the Procurement Arrangement

Some basic decisions should be made before proceeding with the rest of the procurement process. These have to do with the combination of products and services needed and the basic processes for obtaining them.

For a strategy with an electronic supervision component, agencies will need equipment, services, and other products. The equipment consists of the hardware components for operating the monitoring process. Services include the

monitoring component — the process of receiving information from defendants or offenders, processing it, interpreting it, and acting upon it. Equipment installation and repair services also will be needed. Other products may include software needed by the agency to efficiently interface with the monitoring services.

An important issue to consider is how the monitoring services will be handled. Equipment vendors may supply both equipment and monitoring services in package arrangements. Agencies may obtain only the equipment from vendors and contract with other providers for monitoring services. A third option is for agencies to obtain equipment from a vendor and then to set up their own monitoring center in-house. This last option usually is only practical in large agencies with a lot of people being supervised electronically.

A variety of arrangements may be contemplated for the procurement of needed equipment, services, and products. These may be purchased, leased, rented, or provided on a pay-per-day-in-use basis. Agencies may have a preference for one procurement approach, or they may be open to considering the benefits and disadvantages of each. When purchasing equipment, the agency may only receive a static product. What is delivered at the time of purchase is all the agency has to use; however, when renting or leasing, equipment may be upgraded throughout the life of the contract. Purchased equipment, like a car, is the property of the owner once it has been paid for, but leased or rented equipment belongs to the vendor, and payments must continue as long as the equipment is in use. An advantage of leasing or renting is the opportunity to spread payments out over a longer time. Purchased equipment can be used until it is broken, lost, or no longer relevant. Then, the agency has the responsibility of storing or discarding it. Leased or rented equipment may go back to the vendor for upgrading or disposal, or the agency may have the option to purchase this equipment at the end of the contract for an attractive price. Purchased equipment also may be depreciated over its lifetime with resulting financial benefits in some cases. Budgets, cash flow, and regulatory restraints may influence which option is best for an agency.

Pay-per-day-in-use contracts are often used by agencies when their funding is tied directly to their use of systems. In these cases, they only pay for use of the equipment and monitoring services when they are in use. Many vendors require that the agency commit to a minimum percentage of utilization, and when they are unable to reach this level, they return the equipment that they are not using. For example, an agency may have 100 units with a commitment for 80 percent utilization. The agency may drop to only 50 units in use over a holiday period and return 40 of the units, so they are only billed for the 50 they are using rather than paying for 80 units while receiving funding for only 50.

The Purchasing Process

Obtain Lists of Service Providers/Manufacturers

To ensure the bidding process is competitive, agencies should research the range of vendors that may be able to supply the equipment and services needed. There are several ways of learning about vendors, including attending trade shows held in conjunction with professional conferences, reading professional journals, and seeking information from Web sites.

- *The Journal of Offender Monitoring* publishes an annual electronic monitoring survey report that is a must read for any agency using or considering using electronic supervision technologies.
- The National Law Enforcement and Corrections Technology Center, sponsored by the National Institute of Justice, maintains Web links with a variety of manufacturers and product vendors for related technologies at www.nlectc.org and an electronic resource center (https://emresourcecenter.nlectc.du.edu/).

Requests for Information

Requests for Information (RFI) are an intermediate step used by some agencies. They are a mechanism for gathering information in a structured way that helps in making decisions about what products and services are available and their related costs. A request for information describes the scope of the project, projected timeline, and other information that would be helpful to potential vendors in responding to the request. Vendors are requested to provide information about their products and services and estimated costs (Imel and Hart, 2000).

Gather Sample Requests for Proposals

RFPs specify a detailed list of requirements for equipment to be purchased or services to be performed. Often, those who are going to use the equipment and services to implement an electronic supervision program component may not have a great deal of knowledge and experience with either the technology or the procurement process (Dussault, 2000). If that is the case, learning from other agencies can save time and costly mistakes. Many agencies will be happy to share copies of their RFPs with other agencies. By looking through several of these, even an inexperienced purchaser will have a good idea of the range of specifications that need to be included in their own RFP.

When gathering sample proposals, it is useful for agencies to gather them from other agencies with needs and characteristics that are similar to theirs.

Develop the Agency Request for Proposals

Requests for proposals generally contain three sections (Imel and Hart, 2000):

- Instructions to the proposers.
- Terms and conditions of purchase.
- Technical specifications.

Usually, the agency has standard material for the first two sections. However, forms or examples for these sections provided by the purchasing department should be reviewed carefully, and necessary additions, modifications, or deletions should be made as appropriate for the current project. The technical specifications must be developed by those who are involved in planning and managing the electronic supervision program component. Specifications must be clear and comprehensive; vendors and agency personnel must know exactly what equipment, services, and other products are needed and what will be expected of the vendor and the agency if a contract is developed (Imel and Hart, 2000).

Imel and Hart (2000) and others recommend including at least the following components in a Request for Proposals:

- The problem being addressed.
- Characteristics of the population to be supervised (e.g., geographic dispersion, types of offenses).
- The existing environment, including equipment, operational procedures, agency standards, and constraints.
- Required project outcomes.
- The scope and standard of service required, such as functionality, system response times, delivery schedule, service levels, and training.
- Required and optional features.
- Contractual terms and conditions, including any items the agency is not willing to negotiate.
- Criteria for acceptance and contract completion.

The RFP should be reviewed before it is distributed to potential vendors. A technical review should be provided by the agency's legal and purchasing departments or consultants.

Consider a Pre-Bid Conference

It is a good idea for agencies to hold a pre-bid conference to inform all potential bidders about the RFP. Some jurisdictions may legally require agencies to conduct a pre-bid conference, so agencies may want to check with their legal consul. The RFP can require or make voluntary a vendor's decision to participate in the pre-bid conference to discuss the parameters and specific goals of the RFP. Teleconferencing capabilities make it much easier to include diverse groups of vendors. When conducting a pre-bid conference, agencies should establish an agenda, invite as many likely vendors as possible, and clearly explain what the agency hopes to gain from the contract.

Agencies should take advantage of their power as purchasers. That is, remember that the agency is the customer and vendors should prove that they are the best service provider for the agency's needs. Communicating with an electronic supervision technology vendor is crucial for successfully using many electronic tools. The pre-bid conference is a good time to test the waters, so to speak, to get an early indication of the strongest candidates to receive the award. Although vendors should earn any agency's business, administrators also have a responsibility to ensure that proper research is conducted on any vendor before making an award decision. This research can include requesting the contact information for agencies

using their product and/or service, spending some time reading corporate literature, and conducting basic research online. A pre-bid conference should:

1. Be identified in RFP
2. Determine if conference is mandatory
3. Identify and contact vendors
4. Have participants sign a roster or identify themselves if done through telecommunications
5. Provide project overview
6. Identify central goals of award

   6a. Detail expectations of the vendor and the product and/or service
7. Explain evaluation process
8. Allow time for questions and answers

Invitation to Bid (ITB)

Some agencies may check with their purchasing department and find that an invitation to bid is appropriate. The invitation to bid, essentially, is used when agencies have a good idea of exactly what they are looking for from a vendor, but need to know how much it will cost. Most jurisdictions differentiate between the use of an ITB and RFP by the amount of the contract. Some localities stipulate that products and/or services over, for instance, $25,000 or $50,000 will need to go through the complete RFP process.

Issue the RFP

The RFP should be distributed to potential vendors for the equipment and services needed. A variety of methods may be used, including sending copies to vendors who were identified during initial decisions and to those that have registered with the agency's purchasing department to receive RFPs for electronic supervision equipment and services. Some agencies place RFPs on their or others' Web pages. Announcements may be placed in trade publications also. Build into the RFP a suitable response time for vendors to prepare their responses. This needs to include time for potential vendors to ask questions. Someone within the agency should be responsible for answering questions posed by vendors, and when the answers are prepared, they also should be distributed to all other vendors who have received the RFP so everyone will have the same information for preparing their response. Some agencies host a pre-bid conference to answer questions publicly at one general session.

The RFP should include a firm due date and should stipulate the number of copies the vendors are required to submit. Any other requirements — such as requests for sample products or other materials— should be clearly stated. All requirements stated in the RFP should be followed by the agency to maintain impartiality in the bidding process (Imel and Hart, 2000).

Evaluate Responses

The evaluation process should be planned before the RFPs are issued and the basic criteria upon which responses will be evaluated should be summarized in the RFP. The evaluation criteria and process should be clear, fair, and equitable. All potential vendors should be treated equitably, and good records of the evaluation results should be maintained. Imel and Hart (2000) recommend the following categories for evaluation criteria:

- Compliance of the proposal with the specifications in the RFP.
- Value including purchase price, quality, warranties, maintenance costs, training, services, response time, reliability, company stability, delivery time, and contract terms and conditions.
- Company performance and stability, including adequacy of staff, customer support and resources.

Evaluations should be undertaken by more than one person in the agency. Staff who are going to use the equipment and services as well as legal and purchasing personnel should be included in evaluating the proposals. Agencies may want to request additional information before making final decisions, including checking references the company provides of other agencies using its equipment or services. Product or service demonstrations may be requested as well. Final contenders for the bid also should be asked to submit best and final offers that will allow for equal comparison of all these proposals (Imel and Hart, 2000).

All vendors who submit proposals should be notified in writing about the results of their submission. Those who are unsuccessful should be informed. However, Imel and Hart (2000) recommend that final contenders should not be notified until a final contract has been signed between the agency and the selected vendor. If contract negotiations with the selected vendor fail, then there will be other vendors with whom to make contact and transact business.

Scoring Proposals

How do you make a decision about which vendor to award the contract? Making award decisions involves several steps, and may include collaboration by staff who do not normally interact with each other. Step one is to identify an RFP Network composed of a diverse group of people with relevant knowledge and skills, so you may want to include someone on the Network that has electronic supervision experience, or, if the purchase is part of a gang-reentry program, it would be good to have someone on the Network with knowledge of gang supervision. These people should be obvious fits, so to speak, because they have reputations for knowing or doing specific things. It is difficult to make suggestions about the number of people to include on the Network due to agency size, resource, and need differences. Keep these groups manageable in size, as smaller groups are more efficient.

The second step is to select an executor from within the Network to organize and lead the proposal selection process. Here again, this person may be obvious. It could be, for example, the head of purchasing, or the chief officer. This person's role is identical to the other Network members, with the exception that he or she is in charge of all meetings and making

sure that all administrative functions related to the proposal selection are completed (e.g., sending notices, facilitating all meetings). The third step is to select a Review Panel. These individuals are required to *read the entire proposal*, including all additional materials. It is very important to pick people who will actually read the entire proposal, as these materials tend not to be the most exciting of reading. The fourth step is to establish scoring guidelines that are codified in a written document known as the scoring sheet. Scoring sheets make obvious for reviewers what they are to evaluate and how to apply points. These sheets also provide agencies with written documents to justify their final selection. Some agencies want to share the scoring sheets and reviewer comments, while others may prefer to keep these as private internal documents.

The fifth step for evaluating proposals is to hold a review panel conference. This brings the RFP Network, the Executor, and Reviewers into the same room to discuss the proposals. Scoring sheets should be made available to everyone attending the meeting. The executor presides over the meeting allowing open discussion among everyone attending the meeting. The final step is for the Executor and Network to meet one last time to make a final decision. Here are the six steps to selecting a winning proposal:

1. Identify a RFP Network
2. Select an Executor
3. Identify a Review Panel
4. Establish Scoring Guidelines
5. Conduct Review Panel Conference
6. Executor and RFP Network Decision

Select and Evaluate Equipment and Services

Part of the proposal selection and evaluation process may include demonstrations and testing of equipment and services. This may be done by vendors in the presence of agency staff, or it may be done by the agency staff. Some agencies develop small pilot projects involving just a few offenders or staff before contracting for large-scale programs. This allows them to evaluate the functioning of the equipment and services beyond the claims made in vendors' proposals.

Select the Vendor and Negotiate a Contract

In today's complex business world, written contracts are necessary for the protection and benefit of all involved. Many agencies have standard contract terms and conditions that should be included in the RFP and should be the foundations for negotiating final contracts. Contracts should contain, at minimum, the following (Imel and Hart, 2000):

- Legal terms and conditions.
- Milestones for completion of each project phase and specific responsibilities of the agency and the vendor for tasks.
- A specific payment schedule.
- Procedures for changing the scope of work or project costs and who authorizes such changes.

Contractor Failure: Performance Bond, Liquidated Damages, and Right to Cancel

Contractors do not always live up to their end of contract. There can be many reasons for such breach of contract, such as bankruptcy or fraud. One way to protect your agency from financial damages is to make sure the vendor receives a performance bond. A performance bond is a type of surety bond that the contractor would need to receive such a bond to ensure that the terms of the contract are met. And, in those cases when a contractor cannot meet contract terms, a performance bond would protect agencies from extensive costs. Another option is referred to as liquidated damages to allow agencies to recover a certain amount of pre-specified damages. All contracts should include a right to cancel clause and stipulate specific reasons and processes for cancellation.

Control Loopholes

Contracts should be examined for loopholes, particularly when procuring more than one type of equipment. In the past, vendors have been known to respond to such procurement initiatives by pricing their main product high and their products with known performance issues lower. They then win the contract on overall price but include a clause that says nonperformance in one area does not result in cause to cancel the contract for the other areas. This results in the agency getting less than they want, and paying more for it than if they had requested bids for that item only.

Manage Project Implementation

Having a signed contract is not the end of the procurement process. Agency personnel must monitor vendor performance, contract terms, and payments. A schedule should be in place, and agency staff should oversee the vendor's work to comply with the schedule. Payments should be based on meeting predetermined milestones. Open and frequent communications should occur between the vendor and agency staff, and questions or concerns should be addressed as soon as they arise. Before final acceptance of the equipment and services, the vendor should demonstrate their performance and any deficiencies should be corrected. Final payment should be made only after all equipment and services have been delivered and are functioning properly (Imel and Hart, 2000). A checklist for the procurement process is included in the Appendix for this chapter.

CONCLUSION

Incorporating an electronic supervision component is a complicated process. As the other chapters have made clear, there are numerous decisions to be made before a single offender is ever placed on electronic supervision. The procurement process is extremely important as this is the time when you can detail clear expectations and roles for the vendor, which are stipulated in the contract and include protective provisions in case the vendor cannot meet all the agreed upon terms. Procuring electronic equipment involves researching and investigating the potential equipment before developing a RFP. Your agency should identify specific needs that any electronic supervision component will meet before looking to see what sorts of technologies may help your agency achieve those goals. This way your agency's needs drive technological decisions, and not the other way around, in which your agency is allowing technological advances to steer agency desires. A careful procurement process—including legal, purchasing, and technological input—should ease the implementation and ongoing operation of the electronic component.

CHAPTER 7: APPENDIX
CHECKLIST FOR THE PROCUREMENT PROCESS

1. Investigate agency procurement policies
2. Define program needs
3. Target population — type and project numbers
4. Type of equipment
5. Service level
6. Agency research and evaluation needs
7. Upgrades needed for existing programs
8. Gain stakeholder support
9. Determine the parameters of the procurement arrangement
10. Equipment
11. Purchase
12. Lease
13. Rent
14. Pay per day in use
15. Services
16. Operated by equipment vendors
17. Contract with monitoring service
18. Operated in-house
19. Installation services performed in-house or by vendor
20. Fee collection services performed in-house or by vendor
21. Other products
22. Obtain lists of service providers/manufacturers
23. Issue requests for information
24. Gather sample requests for proposals (RFP)
25. Develop agency request for proposal
26. Instructions to proposers
27. Terms and conditions of purchase
28. Technical specifications
29. Issue the RFP
30. Evaluate response
31. Select and evaluate equipment and services
32. Test the equipmen
33. Select a vendor and negotiate a contract
34. Manage project implementation

35. Develop a schedule for project implementation
36. Monitor vendor's performance
37. Maintain frequent communication with vendor
38. Make payments as designated milestones are achieved by vendor

8 ONGOING SUPERVISION WITH ELECTRONIC TECHNOLOGIES

It is easy to become excited about the technological aspects of electronic supervision and lose sight of its real intent — to assist with effective supervision of offenders in the community. Whether an agency's goal is victim protection, public safety, relief of crowded jail and prison facilities, or other goals, administrators must not overlook the needs of the ultimate customers of the justice system: victims, the public, and offenders. Rob Watts (1999, p. 5) summarizes this concept:

> *The ironic thing is that we're in a people business, and the research tells us that the human connection between case manager and client is still fundamentally important. Technology will increasingly drive us, but we cannot lose sight of our purpose, which is to effect change with offenders. The personal bond between a Corrections staff member and an offender is fundamental to that occurring. The notion of a personal relationship must not be lost in the technology.*

The point here is that the community corrections field, as Watts (1999) and others have mentioned, is a human-intensive field. These occupations require individuals to have face-to-face contact with offenders, victims, and, at times, the public. Electronic supervision technologies, as this book has stressed, are tools that can be successfully incorporated into supervision strategies when implemented with a clear understanding of what the tools can accomplish and how officers will interact with them. Often when hearing the term "technology" people assume progress, innovation, and ways to make human lives easier and more comfortable. Although there is some truth to this, at the same time, technologies also require adjusting organizational practices and job duties. Some organizational scholars, such as Liker, Haddad, and Karlin (1999, p. 593), point out that "technolog[ies] influence complex social networks and act sometimes as an integrative force and other times as a disintegrative force that separates people."

Incorporating electronic supervision technologies requires making other organizational changes as new technologies bring about new ways of doing things. That is, every organization has (both informal and formal) rules that establish appropriate behavior patterns or practices that can be easily understood as the "typical way things are done." The use of

electronic supervision tools requires new policies and practices as staff will need training before knowing how to use the electronic tool as *part of an ongoing supervision process.* Consider the first time you tried to use a personal computer. Did you get frustrated? Did you blame the computer for not performing certain functions? Did you find that some of these problems were user related and others were technological limitations? This is similar to how many electronic supervision tools are being received right now. The feedback seems to be that agencies and officers find GPS, for example, to offer a new glimpse into an individual's life, but these systems also have some potential unanticipated consequences (e.g., increased workload, invoice shortage, broken equipment) (see DeMichele, Payne, and Button, 2008).

When new technologies are introduced to organizations they reshape many existing organizational practices as well as creating new ones. Incorporating electronic supervision technologies into a supervision plan requires complex planning and implementation. Implementation was covered in a previous chapter, and will not be discussed here. In this chapter, discussion focuses on the supervision of offenders using electronic technologies as tools to achieve the selected aims determined by each agency.

As in previous chapters, this chapter will raise several questions for administrators to consider and will make recommendations where possible. Much will depend, however, on the purpose of the electronic supervision component, the risk level of offenders being supervised electronically, and other decisions about how the program will operate.

Enrollment for Supervision

Despite all the talk about technological advancements, an essential element to making any electronic supervision tool effective is reliant upon officer communication with their supervisees. When incorporating an electronic supervision tool into a supervision plan it is crucial to establish specific guidelines for officers introducing individuals to the equipment and/or software. There are many elements to be concerned about including officer safety when installing software or other devices in an offender's home as well as information regarding tampering, alerts, lost signals, and other issues. The better the initial information provided to offenders or defendants—including written documents—should improve the ability of the individual to follow supervision conditions. Some steps to consider when placing someone on electronic supervision:

1. Provide the offender/defendant with a written "Electronic Supervision Rules" (ESR) document (i.e., document providing individual with basic rules).
2. Review and explain the ESR, and answer any questions related to the supervision equipment.
3. Have the supervisee sign the ESR to indicate that they understand and agree with the rules.
    3a. If the supervisee is living in someone else's home, the homeowner must also agree to having any electronic devices connected to their phone line.
4. Provide the supervisee with clear language about how the equipment works (e.g., how to respond to text messages).

Other specific issues to discuss with the supervisees during enrollment include:

1. Tampering with equipment (e.g., wrapping it in aluminum foil, submerging it in water) are violations.
2. No unauthorized absences from the home or other departures from the travel plan.
3. Supervisee must abide by ALL stipulations of travel plans, with any deviations responded to by the officer.
4. It is the supervisee's responsibility to abide by all curfew and other requirements.
5. Supervisee must make all accommodations to support the electronic supervision equipment (e.g., maintain telephone line).
6. Agencies must identify a supervisee's ability to pay for costs associated with electronic supervision based on a sliding fee scale.
7. Supervisees must abide by payment schedules for the electronic supervision equipment.

This information is meant only as a guide to help you establish clear guidelines for enrolling someone on electronic supervision equipment, for although there will be specific issues to confront depending on the type of equipment used, the particular offender, and the goals of the agency. Therefore, agencies need to develop explicit guidelines for officers to provide supervisees. Community supervision agencies are typically motivated by the potential to bring about behavior changes, and should be interested in seeing offender/defendants succeed at community supervision. It is important to provide supervisees with comprehensive instructions about the technology to reduce supervisee excuses for alerts, such as "I didn't know that I was supposed to do that," or "I thought that my curfew was extended one hour on weekends." The initial period of community supervision is the time when most violations and revocations occur, so it is essential to getting supervisees off to a good start with any new electronic supervision technologies.

Supervision Strategies

Now that supervisees have received the necessary information to inform them of how the electronic supervision equipment works and what is expected of them, it is important for agencies to develop supervision strategies that structure the bulk of supervisees' time. Paparozzi and DeMichele (2008) offer a three-pronged approach to make community supervision more effective: treatment + surveillance + enforcement model. This three-pronged approach is delivered sequentially, so that treatment includes risk assessments, case planning, and delivering services. The surveillance phase "involves the rigorous monitoring of the case supervision plan; and enforcement requires coerced compliance with case supervision plans through a variety of mechanisms including return to jail or prison" (Paparozzi and DeMichele, 2008, p. 5). This model builds upon Paparozzi and Gendreau's (2005) finding that offenders performed much better when supervised by officers blending what is referred to as "law enforcement" and "social worker" orientations relative to either of these orientations alone.

Here we will focus on one aspect of this approach: the surveillance phase. Effective monitoring is vital to offender supervision. There must be a process for observing and managing the information received about each offender from the electronic devices (and other information sources as well) to determine whether the offender is on a re-offense cycle (i.e.,

likelihood of non-compliant behavior). The way monitoring tasks are performed will influence the rest of the supervision process. Therefore, an early decision agencies need to address is how monitoring of electronic supervision equipment will be structured. We have identified four general types of relationships between public agencies and private firms for monitoring electronic supervision equipment. The options fall on a continuum from the first type in which agency personnel perform all services to the fourth type in which agencies contract with outside service providers for all services. These four types are only used as a way for agencies to understand some of their options when structuring the monitoring tasks of any electronic supervision component.

1. Comprehensive Agency Type: community corrections staff perform all services including monitoring computer data, supervision of offenders, drug and alcohol testing, verification of offenders' community activities, installation and removal of equipment, violation responses, and other tasks.
2. Extensive Agency Type: Monitoring of computer data is contracted to a service provider while agency staff perform all other tasks.
3. Limited Agency Type: A contracted service provider furnishes services beyond monitoring computer data, such as equipment installation and removal and equipment troubleshooting, while agency staff tend to case management issues.
4. Hands-Off Agency Type: All services — including monitoring computer data and providing field services — are performed by an outside contractor. However, the government agency (i.e., probation, parole, law enforcement, pretrial services) maintains legal authority and makes ultimate decisions about responding to violations.

Each of these types has benefits and disadvantages that an agency must consider. The best choice for a given agency will depend on several factors, including the number of offenders being supervised electronically and the purpose established for the electronic supervision component. However, if staff already are stretched with high caseloads, it may be more effective to contract for some or all of the monitoring services. Monitoring companies can spread the costs of monitoring services across hundreds or thousands of offenders, making it much more cost-effective.

The technical work of installing equipment properly and troubleshooting problems may be cumbersome and time consuming. Many agencies have chosen to contract for this service, thus freeing their staff to concentrate on the job for which they were trained. Similarly, some agencies choose to contract for case management and field services lower-risk individuals so their officers are free to work with the more serious, high-risk offenders. On the other hand, some agencies believe that because they are already doing the case management required for electronic supervision, they should do this portion as well.

There is no right or wrong approach. Instead, these decisions must be made on an individual agency basis. It appears that most of these decisions will be made depending on agency resources and needs. It depends solely on agency needs and capabilities, program goals, and the capacity of the service provider with whom the agency may contract. The four types of relationships between community corrections agencies and private contractors are not presented to suggest that only one

type be implemented, but rather to point out the range of possibilities to provide you with a framework when considering your monitoring strategy.

Administrative Decisions about Supervision and Monitoring

Incorporating new technologies brings organizational change, requiring administrators to make several decisions regarding the development of policies and procedures. Many of these decisions depend on the specific electronic supervision tool being used and the individual risk and needs of the offenders to be supervised with the device. Some of these issues are discussed in other parts of this guidebook but are reiterated more fully here to provide a thorough discussion of supervision issues.

Staffing: More than Caseloads, Consider Workload

The community corrections field is a crucial element of the U.S. justice system. Most of you are familiar with the often cited Bureau of Justice Statistics data that shows steep increases in probation and parole populations—with the combined figure around five million adults under supervision (Glaze and Bonczar, 2006). The growth in these offender populations has been accompanied by an increase in offender conditions of supervision. These two trends—(1) more probationers and parolees and (2) more conditions per offender—creates serious workload concerns. That judges and paroling authorities have imposed more release conditions on offenders exacerbates workload issues associated with more offenders under some form of community supervision (Petersilia, 2003). Increased release conditions have a dramatic and obvious impact on the workload of community corrections officers (see DeMichele and Payne, 2007; DeMichele and Paparozzi, 2008; Taxman, Shepardson, and Byrne, 2004). The overall population of the justice system is growing, which places more individuals into the pretrial phase. Increasingly, GPS is being incorporated with domestic violence supervision, and ignition interlock systems and secure remote alcohol monitoring are all becoming more popular pretrial options.

Joan Petersilia (2003) points out that stagnating and decreasing budgets forced community corrections officers to accomplish more with the same or less funding than was available before. Rising numbers of offenders and increased needs and risks creates a situation in which offenders need more officer time. Therefore, several agencies have moved away from only considering caseloads to also considering workload points (Burrell, 2006). Consider the difference in supervising a high-risk sex offender or a low-risk, first-time shoplifter. These individuals, obviously, have much different risks of recidivism, dangerousness, and service needs. It has long been acknowledged in the community corrections field that maintaining realistic workloads is a necessary prerequisite to making community corrections effective at accomplishing its public safety and social justice missions (DeMichele and Paparozzi, 2008).

Several issues about staff involvement in electronic supervision components must be determined. The number of staff needed to implement electronic supervision and how their time is scheduled will depend on the purpose and the number of individuals supervised, and the level of service required per offender (i.e., the workload needed to ensure public safety). If high-risk offenders are to be supervised, and there will be immediate follow-up of every violation (e.g., sex

offender enters an exclusion zone), then more staff time will be needed. On the other hand, if violations are not followed up immediately (e.g., with a failed remote alcohol test), less staff time may be needed, as they can use the information in their ongoing case work with the supervisee. Similar issues relate to the scheduling of supervision staff for the program component. If immediate responses will be made to violations, then staff will be needed continuously, and a 24-hour per day, seven days per week schedule will be required. A variety of caseload options also can be considered including:

1. ***Technology dominate:*** Specialized caseloads of offenders being supervised electronically. In this configuration, the same staff attend to the electronic supervision procedures as well as to all other field services required by a group of offenders.
2. ***Offense dominant:*** Specialized caseloads based on other criteria, such as intensive supervision caseloads or sex offender caseloads. In this instance, supervisory staff may provide all services, or specialists, such as surveillance officers, may attend to the duties related to electronic supervision and other staff may perform all other duties.
3. ***Expert-generalist:*** Regular or mixed caseloads in which some offenders are supervised electronically. Regular supervision staff would provide needed field services and might also perform electronic supervision responsibilities; on the other hand, electronic supervision responsibilities might be assigned to specialized staff while regular supervision tasks are handled by case managers.

Agencies should make staffing considerations before implementing any new electronic supervision technology. It is advisable for agencies to conduct time studies before and ongoing to determine workload. Policies should clearly state officer role expectations up front and provide relevant training to prepare officers for using the electronic devices. It is difficult to provide any specific caseload size for electronic supervision technologies due to the variability. Consider the difference between supervising low-risk offenders with kiosk reporting, in which one officer may have a caseload of 400 or 500 offenders. Other officers will be responsible for supervising high-risk sex offenders, in which supervising 20 to 30 offenders is all that is reasonable. This is why we have stressed the importance of identifying the purpose of the electronic supervision tool and the individuals that will be supervised with such devices. This brings us back to Rob Watts' (1999) quote at the beginning of this chapter in which he recognized that electronic supervision technologies are only technologies or tools. They do not operate on their own, but instead require numerous decisions before implementing, once becoming operational, and throughout the maintenance of the electronic supervision tool.

Monitoring Decisions

Whether monitoring is provided within the agency or is contracted to a private vendor as discussed earlier in this chapter, there are several decisions about how monitoring is to be conducted that must be incorporated into policies and procedures. Monitoring staff must have clear instructions about procedures to follow regarding the information they process from the electronic equipment. Again, risk levels of offenders, types of equipment, and the purpose of the program will influence these decisions. The following issues will need to be deliberated by agency planners, discussed with vendors, and enacted through agency procedures.

Curfews

Even for offenders supervised through global positioning system (GPS), whose whereabouts can generally be tracked at various locations in the community, offenders will often be held accountable for being at specific places at specific times. In some cases, a simple curfew time is established, and offenders, for example, are expected to be at home by a certain time in the evening and are not allowed to leave until a specified time the next morning. In traditional home monitoring programs, offenders usually are given permission to be away from their residences only for certain activities during defined periods. For example, an offender may be allowed to leave his or her home one-half hour before the workday or school day begins and return one-half hour following the end of his or her work shift or school day. Besides this, offenders may be allowed time away from home for scheduled substance abuse treatment, medical appointments, attending religious services, and tending to personal business, such as shopping. Often, the amount of discretionary time offenders are allowed for tending to personal business can be used as a program incentive or sanction. More time can be given for compliance, and discretionary time can be lost for noncompliance.

For an electronic supervision tool to work effectively, offenders should be given explicit instructions, both verbally and in writing, about the times they may and may not leave home or other program expectations (e.g., automated reporting, taking alcohol tests, inclusion/exclusion zones) and consequences for violations. It is also vital that monitoring and supervisory staff have effective communication mechanisms for setting up and changing, if needed, the specific activity information about individual offenders. Many false alerts are generated by approved schedule changes for the offender that have not been entered in the monitoring computer program. Supervision staff should be required to promptly complete written information about schedule and other changes and transmit that information immediately to monitoring personnel. Monitoring staff should be required to enter changes within a specified time of receipt. Such policies will make the system operate much more effectively.

Range Options

Electronic supervision equipment that uses radio frequency technology (e.g., continuous signaling and GPS) to know when the signal from the offender's transmitter is picked up by the receiver, may or may not have programmable ranges that can be set to indicate when the offender is within a certain distance of the receiver. However, administrators should understand that range settings are approximate and many factors may cause the range to vary somewhat. If it is possible to set the equipment's range, agencies may want to have a policy for the usual distance the supervisee will be allowed to go from his or her receiving unit without an alert occurring. The policy also may have provisions for varying the usual range on a case-by-case basis. Individual ranges should be determined based on the characteristics of an offender's residence and lifestyle. For example, an offender living in an apartment building might have a shorter range than someone living in a single family dwelling with a spacious lawn. For electronic supervision devices that are designed to alert victims of the approach of a perpetrator, the greatest possible distance to allow the earliest notice of the offender's approach is probably the best policy. Program rules should be clearly delineated and conveyed to offenders. It is probably better for them to

understand that they are to stay within their home (their legal range) rather than explaining that the equipment will allow them to go a certain distance from the receiver (a technical range) before an alert occurs.

Random or Scheduled Contacts

Programmed contact electronic supervision equipment and monitoring services can be programmed in a variety of ways. In some cases, offenders are called at their residences and must respond to verify they are at home. In other situations, offenders may be beeped in any location and are required to call the monitoring center within a specified time. This can be used to verify their attendance at work or school. When computers are used to send signals to the offender to call the monitoring center in programmed contact systems, the monitoring center equipment should generate a "call right back" message to the offender. This will ensure that call forwarding and conference calling features are not being used to hide the true location of the offender. With radio frequency equipment, the monitoring computer receives a message when the offender's transmitter signal is within range of the receiver. Most monitoring is not continuous, and administrators should understand that there is always the possibility that offenders may leave the location they are supposed to be in without their absence being detected immediately. Even GPS location tracking systems often do not monitor the offender's location constantly because of the high cost of cellular telephone services. However, the location tracking device does record the offender's location continuously, and that data can be reviewed at a later time.

Community corrections personnel need to make decisions about how frequently and in what manner offender monitoring will occur. In some cases, especially with lower-risk offenders, scheduled contacts may be acceptable. For example, with an offender who is basically on a 7:00 p.m. to 7:00 a.m. curfew, a programmed contact system may check that the offender is at home by 7:15 p.m. and check again to see that the offender is still home at 6:45 a.m. Perhaps a third check might be conducted at 7:30 a.m. to make sure the offender has left for work or school. With continuously signaling radio frequency equipment, the monitoring computer is programmed with the offender's schedule and is able to compare the times when the signal is received or not received with times at which the offender is supposed to be within range or out of range.

In other situations, random contact is preferable, especially with higher-risk offenders. Through whatever mechanism random contact is made, there should be no discernible pattern to it, and offenders should have an equal chance of being selected for contact at any time. Computer-generated random contacts should occur several times a day and are matched to the offender's schedule in the computer or his or her inclusion and exclusion zones. If the offender is not detected at home at the appropriate times, or if he or she is found within an exclusion zone, an alert or exception report is generated.

Grace Periods and Leave Windows

Supervision policies and individual offender case plans should clearly establish and communicate schedules, inclusion/exclusion zones, and other program parameters for offenders being supervised electronically. It is important to establish realistic schedules for offenders that take into consideration commute times and other situations.

Electronic supervision products that rely on radio frequency communication must meet certain standards of the Federal Communications Commission (FCC), which requires that the equipment accept interference of the transmitter signals. Thus, most systems are designed to receive several signals that the transmitter is out of range, and there is a delay before reporting an alert (Conway, 2001a). A "leave window" can be set for the amount of time allowed to register that the transmitter is beyond the range of the receiver or has entered the receiver's range. After that time has elapsed, an out of-range (or in-range) signal should register with the monitoring center. Therefore, there may be a brief lag between the established curfew for an offender and the time that his or her presence (or absence) will be detected. Then, if the monitoring center is to verify an alert, several more minutes may pass. For example, in some situations the offender could be late arriving home but might be home by the time the monitoring center calls to confirm the violation.

Some programs may choose whether they want to allow a grace period. In some cases, this might avoid unnecessary violation reports. For example, with programmed contact systems, if a defendant or offender is supposed to arrive home by 6:00 p.m., but is not there when contacted within 15 minutes after his or her curfew, the monitoring service may be instructed to give the offender a 15-minute grace period and check again no later than 6:30. There are potential problems, such as traffic jams, that could delay an offender's return home. However, if the offender is not at home after the grace period, then an alert would be generated and a violation would be reported to supervision staff. With other offenders, particularly high-risk, violent offenders, the contact system can be set to allow for no grace periods. Therefore, as soon as an offender's absence is detected or his or her presence in an exclusion zone is determined, an alert would be generated.

Generally, personnel would not advise offenders of a grace period. They would be given curfew times and be expected to abide by these. The use of leave windows and grace periods may be helpful to personnel for certain types of equipment used or to avoid excessive violations in low-risk cases. However, offenders should understand that they can be held accountable for any exceptions from their prescribed schedules. To date, research does not exist that documents the performance outcomes of random contact systems. For this reason, it is difficult to suggest that agencies incorporate such technologies as evidence-based practices. Instead, research practices assume a null effect of interventions, and scientific evaluations are to either accept this view (no effect) or refute it (positive effect). Therefore, agencies adopting such practices do so with limited direction from research, and might want to consider alternative electronic tools, especially for high-risk offenders.

Alerts and Violations

Monitoring programs can be customized to provide alert and violation information in a variety of ways for an agency and can be individualized for particular individuals. When the computer detects an exception (e.g., out of range, entering an exclusion zone, or tampering with equipment), the person operating the computer receives a message to that effect. Agencies can then define the procedures that should occur when such messages are received. In some cases, monitoring personnel will attempt to phone the offender to determine whether he or she is at home (or work), and many GPS devices allow for remote text messaging. In some cases, false alerts are generated because of equipment glitches, and these can be

taken care of through telephone verification (see Brown, et al., 2007).

Agency policy also should determine when agency supervisory or surveillance personnel are to be notified about alerts or verified violations. Timing is likely to be determined based on offender risk level, with immediate notification for the highest risk offenders. Supervisory or surveillance personnel can be notified of alerts and violations in a variety of ways. Telephone, page, fax, or e-mail messages to supervisory staff can be generated automatically by computers or can be sent by monitoring staff according to instructions. The computerized data can be used not only for notification about individual offenders, but summary reports can be generated about specific offenders, a group of offenders, or all offenders being supervised electronically. This allows supervisory and surveillance staff to look for patterns and detect problems.

Other Things to Consider

Electronic supervision tools include several devices designed specifically for lower risk offenders. These tools may allow for providing a more limited amount of supervision—as appropriate for the individual—as we have learned that when lower risk individuals are placed around high risk offenders, the recidivism rates for the former increase (Lowenkamp and Latessa, 2004). It is important to avoid over-supervising individuals, as this is likely to foster ineffective practices, thus exacerbating workload issues. By limiting the amount of time spent with lower risk individuals, officers can concentrate their time on needier individuals. One tool designed for this is kiosk reporting as has been mentioned before. Kiosk reporting allows for monitoring the conditions of much larger caseloads without affecting public safety. Other alternatives include secure remote alcohol monitoring and ignition interlock systems.

GPS Data: What to do with it and what does it mean?

This guidebook is meant to provide practical information for policymakers considering alternative sanctions to incarceration, administrators trying to manage growing caseloads (and workloads), and line-staff responsible for the day-to-day supervision of individuals. Providing information to such a diverse group of individuals necessitates that this guidebook remain rather broad, but at the same time we do want to provide specific information about certain electronic supervision tools. This section will discuss several features related to using GPS.

The community corrections field is quickly becoming a central organization responsible for the supervision of several high-risk offender categories, for instance, domestic violence, gangs, and sex offenders. These groups present unique challenges to the policymaking and community corrections fields, with few crimes generating as much public concern and policy reaction as sexually related crimes. As was mentioned in Chapter 5, there are several laws recently passed at the Federal, State, and local levels that potentially blur the purpose of electronic supervision, specifically GPS location tracking with sex offender supervision. That is, legislators are often looking for a quick fix after the commission of a highly publicized sex crime (DeMichele, et al., 2008).

Sometimes sex offenses are presented by the news media in ways that may overlook important contextual factors. As many community corrections officers quickly learn, the bulk of sex crimes are not committed by a stranger, but rather

by people who knew their victim beforehand. While this fact tends to surprise the general public, official crime statistics routinely show that offenders typically victimize people they know (Kappeler, Blumberg, and Potter, 2000; Simon, 2000). This is not to ignore the importance of preventing stranger-perpetrated offenses, but rather to highlight the context in which most sex crimes take place among people knowing one another as family members, friends, or acquaintances.

Electronic supervision is expected to offer several benefits to the justice system such as alleviating the burden on jails and prisons, and providing additional supervision to areas of offenders' lives otherwise left undetectable (Papy and Nimer, 1991). Despite these potential benefits, there is little rigorous research documenting the crime-reducing impact of electronic supervision technologies (for the most notable exception, see Padgett, Bales, and Blomberg, 2006; Renzema and Mayo-Wilson, 2005).

Electronic Monitoring and Crime Reduction

The notion of what is referred to as evidence-based practices suggests that crime control practices should be evaluated to determine their effectiveness at reducing unsuccessful outcomes. Simply put, do offenders perform better or worse following the implementation of a specific supervision strategy? A popular example is the overwhelming optimism for boot camps and "scared straight" programs that were expected to reduce future criminal behavior. These programs sound good, upon first glance, but once more stringent research was conducted these programs were often found to actually increase the likelihood of future criminality (Aos, Miller, and Drake, 2006). The medical field has a common saying of "to do no harm" which also should apply to crime control strategies. In this case, the generalized militarized approach of boot camps and the strategy of trying to scare kids into conformity, although sounding good on their face, did more harm than doing nothing.

Obviously, we must be careful not to develop policies and practices that foster more crime. This brings up a good question of what can GPS do? Does GPS reduce crime? With so many jurisdictions mandating GPS tracking for sex offenders one would think there is a significant amount of research showing large reductions in new sex crimes among supervisees. This, however, is not the case. Instead, there is limited research demonstrating crime reduction with GPS (for exception, see Padgett, Bales, and Blomberg, 2006). In fact, two criminologists found "that applications of [electronic monitoring] as a tool for reducing crime are not supported by existing data. Properly controlled experiments would be required to draw stronger conclusions about the effects of [electronic monitoring]" (Renzema and Mayo-Wilson, 2005 p. 220).

This is not to say that GPS is not effective or that it cannot be incorporated in sex offender community supervision strategies. Instead, GPS location tracking may prove to be an effective *tool* for community corrections officers to improve offender behavior only when used as part of a comprehensive strategy to supervise offenders. The Comprehensive Approach is an approach used to supervise and treat sex offenders. The Center for Sex Offender Management (2008) offers the following description of the Comprehensive Approach:

The Comprehensive Approach was developed in an effort to expand current thinking about how to most effectively manage this challenging offender population. Like the Containment Approach, the Comprehensive Approach recognizes the complex nature of adult and juvenile sex offending and the need for key system stakeholders to facilitate accountability, rehabilitation, and victim and community safety throughout all phases of the justice system. However, the Comprehensive Approach reaches beyond the primary focus on the treatment–supervision polygraph triad, and expands to include a strategy that includes a broader sphere of influence. Specifically, the Comprehensive Approach range of stakeholders, all of whom share the highlights the critical importance of six core common goal of reducing sexual victimization. components: (1) Investigation, Prosecution, and Disposition; (2) Assessment, (3) Supervision, (4) Treatment, (5) Reentry, and (6) Registration and Community Notification.

This broader "sphere of influence" calls for a collaborative effort among more agencies than might be included under the containment model. Also, the broader influence likely makes this approach more appealing for guiding the development of collaborative responses to low level sex offenders. The fundamental principles of the Comprehensive Approach include (1) victim-centeredness, (2) specialized knowledge/training, (3) public education, (4) monitoring and evaluation, and (5) collaboration.

Community corrections officers are required to collect information. Think about how, on an average day, when dealing with offenders, families, victims, and others, they are constantly asking questions, reviewing forms, or conducting some other type of inquiry. These investigative procedures may be part of a risk assessment, employee contact, urinalysis, or criminal records check. At any rate, supervising officers are gathering information to gain access into an offender's life. GPS tracking is no different. It too provides officers with information. In this case, GPS provides very specific information about the whereabouts of an offender at given times.

Analyzing Trends in GPS Data

Community corrections officers need to look for trends in location data. This contributes to the time-consuming nature of GPS supervision because officers may look at millions of location data points to discern important movement patterns that consist of a few hundred data points. Consider, for example, a hypothetical case in which a sex offender was visiting the same store each day on his or her way home from work. Upon first glance, this may not seem significant, as it was within the offender's travel plan, and could simply be a convenient place for the offender to stop off for a snack before going home for the evening. It could be, however, that an offender is stopping at this store to purchase pornography, alcohol, or even to meet someone such as a small child of the attendant. Officers should recognize movement patterns to prevent potential problems, which could reveal that an offender is doing what he or she is supposed to.

It is not easy to identify such patterns. The Tennessee Board of Probation and Parole (2007, p. 28) reported that

uncovering such patterns "could be only one set of 300 to 360 points out of 2,100,000 points received in a year." They go on to say that "developing an eye for these subtle changes that could indicate a relapse and potential new offense takes training, experience, and patience." This means that officers, especially those supervising higher risk offenders, must be trained to identify such shifts in location patterns, and not only rely on the technology to provide exclusion or other violation alerts.

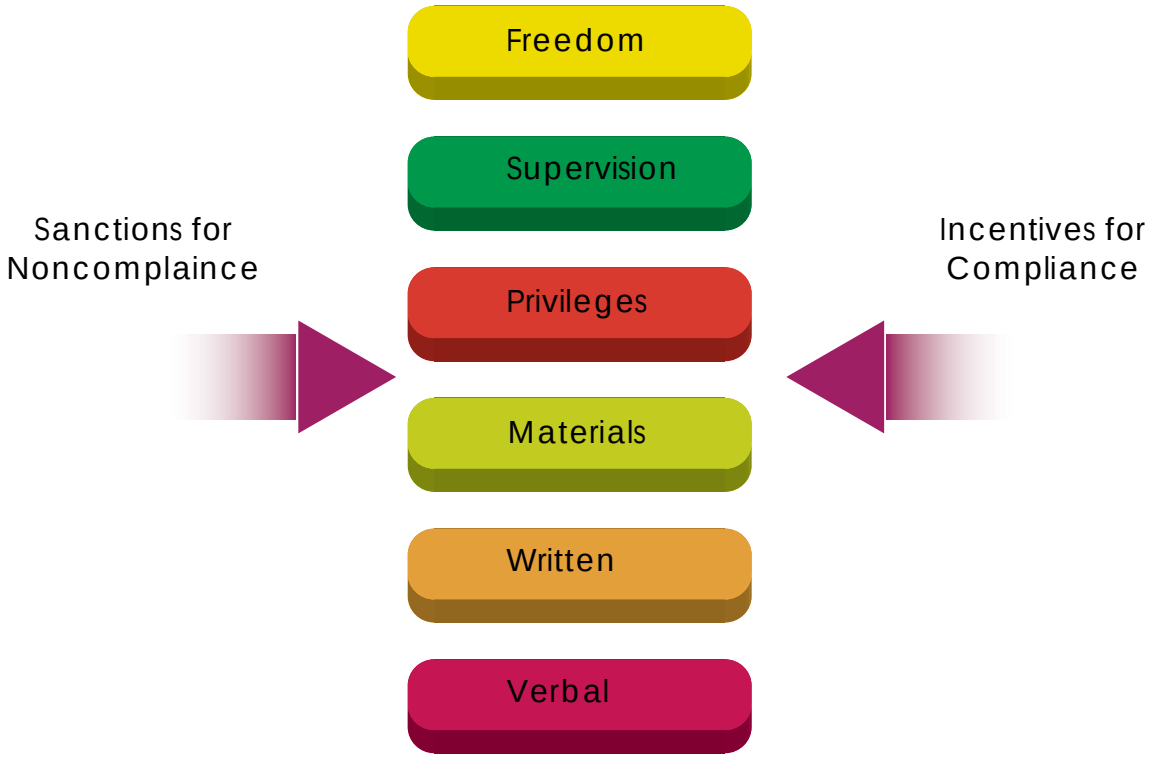
This brings us to a very difficult aspect of using GPS as part of community supervision—alerts, violations, and equipments failures. You may be thinking that an alert and a violation are the same thing, but they are not. As anyone who has used GPS in a community supervision setting knows, alerts are an extremely time-consuming, and often frustrating part of community supervision. An alert is an electronic message informing an officer that something strange is taking place. So how does this work? First, a central reporting center will receive the electronic message from the GPS equipment. Second, the central monitoring center informs the community corrections officer responsible for the specific offender. Third, the central monitoring center will investigate the alert to either "clear" or substantiate the alert. An important point here is that sometimes the system will "self-clear" alerts due to either offender movement or equipment adjustments, such as an offender arriving at home a few minutes before his or her curfew time, but this would be cleared when it is time for the offender to arrive. This is not "a false alarm or a violation of supervision," but it definitely demands a response from the monitoring center (Tennessee Board of Probation and Parole, 2007, p. 17). Making things more difficult is the fact that community corrections officers only have limited immunity, which does not provide officers with much protection from liability issues.

All alerts must be responded to in a timely fashion. Agencies need to decide beforehand if they will be able to respond to alerts in a near-real time fashion if so, active GPS is something to consider. However, if agencies lack the ability to offer continuous responses then passive GPS reporting may be a more appropriate option. Some typical alerts that may not rise to the level of a violation include: low battery warnings, power loss, cuff low battery, and phone connect landline failure. Other alerts that demonstrate a willingness on the part of the offender to sabotage the equipment include: cuff strap tamper, battery tamper, GPS tamper, prolonged submersion in water, and wrapping the unit in aluminum foil. Violation alerts will include failing to charge equipment, exclusion zone violations, inclusion zone violations, cuff leave violations, equipment did not call violation, and GPS blocking violation (see Tennessee Board of Probation and Parole, 2007, p. 20).

It is difficult to suggest exactly how agencies should plan for their officers to respond to alerts, violations, and equipment failures. What is easy to suggest is that agencies prepare for an assortment of issues to emerge that will require training, patience, and preplanning. Equipment failure is one area in which agencies should be prepared to spend significant amount of time. Equipment failure is defined by Brown et al. (2007, p. 2-35) "as the inability of the GPS component(s) to function properly. Failure can occur out-of-the box upon initial receipt or in the field while the equipment is in use. Equipment failure is such a serious issue that one Tennessee officer reported that "the main problem I have with GPS is the hardware. If an offender's PTU [personal tracking unit] is not working properly, I have to change

out the PTU. It is time consuming. It can take up to one hour to hook an offender to a PTU. Many times the new PTU is not working properly, so I have to start the process all over again. This interferes with my schedule of offenders I have to see, paperwork, warrants, violations, court, home checks, etc." (Tennessee Board of Probation and Parole, 2007, p. 34). The point here is that an assortment of things can occur or go wrong with GPS equipment that can interrupt the community supervision process. This does not mean that GPS tracking is a bad idea, but rather points to the greater need for the community corrections field to continually work with and make adjustments to ensure that GPS tracking is an effective supervision tool. Agencies will want to consider potential equipment capabilities and problems when developing RFPs, contracts, and any agreements with vendors. Another consideration is to suggest that the vendor provide equipment troubleshooting training as part of their services to certain staff members. This will allow agencies to have some equipment expertise in-house, thus allowing supervision officers more time to complete other tasks.

Figure 8a. Graduated Responses A Stair Step Approach



Another concern related to GPS tracking is the geographical makeup of the jurisdiction. Anyone who has a cell phone knows that you may lose your signal as you enter mountainous and rural areas as well as urban areas such as subways and elevators—thus might be a nice respite from its ringing, but it is serious consideration for GPS tracking. This is not to say that if your jurisdiction is in a rural or mountainous area that GPS will not work for you. Rather that you should have real expectations of what you can get from this tool. You should not have false expectations about what GPS tracking will do for you. And, it could be that you will need to avoid active reporting systems.

Also, if you have individuals to be supervised with GPS and you know that part of their travel plan includes disruption areas, it should be stated in the initial meeting that it is the offender's responsibility to properly carry the GPS transmitter. The times when an individual will be out of coverage should be identified, and the data point patterns should be monitored to ensure that such individuals do not take advantage of this situation. While rural areas present specific technological problems typically related to cellular coverage, urban areas also have some obstacles for the GPS signals. Tall buildings, parking garages, and other buildings may block the GPS signal. Again, individuals being supervised with GPS should know their responsibility to do their best to allow location tracking. This could present problems if a supervisee works in the basement of a large building. The supervising officer may demand that the offender find another job, or the officer could work with the offender by allowing him or her to maintain this job as long as they meet all other supervision conditions. In cases of high-risk offenders, agencies should be careful about the leniencies made in this regard, and these decisions should be made on a case-by-case basis using risk assessments and information gathered from face-to-face contact.

Evidence-based practices are rooted in the identification of risk levels to determine the amount and type of supervision to provide individuals. While there are technologies designed specifically for lower risk offenders—namely kiosk reporting and automated calling systems—high risk offenders need highly structured supervision case plans. Electronic supervision tools, obviously, are not going to answer all problems related to the supervision of high-risk offenders—if they could we would be writing a much different guidebook. With that said, however, electronic supervision tools can give officers an additional set of eyes to provide a better view of the offender's life. Community supervision is intended to provide offenders, especially offenders with high risks and needs, with an external structure by defining specific rules, behavioral expectations, and social roles for the offender. The fact that an individual is being supervised as a high-risk supervisee suggests that he or she has various aspects about their life that have prevented them in the past from making good behavioral choices, and officers should not expect that GPS alone with change this.

Instead, let the supervisee know that officers know where they are at all times. You can actually bring them into your office and show them their data points for the week before. One effective example is that an officer had an offender report a few minutes late to an office meeting, so the officer pulled up the GPS tracker on the computer when the offender arrived. The officer showed the offender the route he or she had taken to get to the officer meeting, and it revealed that the offender was speeding on the way to the office. This was not done to notify law enforcement to issue a speeding ticket, but rather to let the offender know that you are watching (Tennessee Board of Probation and Parole, 2007). High-risk offenders, typically, are looking for ways to get away with things they are not supposed to be doing—they wouldn't be defined as high-risk if this was not true—and electronic supervision tools are intended to allow you to more closely watch these offenders.

Emergency Contingency Plans

Supervision program policies must include plans for emergencies. A variety of technical problems can occur including electrical power outages, telephone service interruptions, and computer crashes. Other circumstances beyond the control of staff also may jeopardize program operations, such as extreme weather conditions and significant traffic problems. These potential problems should be anticipated, and contingency plans should be developed and known by staff. When developing these plans, programs should begin by examining the emergency or contingency plans developed for the agency in general, and then modify or expand these as required for the electronic monitoring system. Planners should focus especially on the types of situations that would be most likely to occur in their locality and also should consider the resources available to address these. For example, agencies might want to develop specific plans for events such as:

- Fire (in the agency, monitoring center, or offender's home).
- Flood (in the agency, monitoring center, or offender's home).
- Destructive weather (e.g., tornados, hurricanes, earthquakes, blizzards, or major snowstorms).
- Terrorist threats (e.g., bombs or bomb threats).
- Riots or civil disobedience.
- Hostage situation.
- Power outage.

Available resources for such events might include the agency staff, law enforcement agencies, emergency management, other government or community agencies, and volunteers. For example, when electrical power and telephone services are lost for several hours because of a major weather incident, the agency's protocol may be to have all field staff do periodic home checks and ask law enforcement for assistance when needed.

If contracted monitoring services are used, program personnel should inquire about their emergency and contingency plans during the contract negotiation phase. In general, monitoring computers should be equipped with back-up features for storing information that might be lost. Back-up batteries and generators should be available in case of power outages. Reserve computer equipment should be available in the event of a system crash. Some monitoring centers have two separate telephone conduits and networks available so the system can be switched immediately if service is disrupted. It is important that in-house or contracted monitoring systems have emergency features so supervisory staff will receive uninterrupted information.

Most equipment used in offender's homes is also equipped with back-up batteries to ensure that no messages are lost during an emergency or power outage. Equipment varies in the length of time the back-up battery will work, and agencies should be sure to check this feature when reviewing the various equipment options (L. Connelly, personal communication, September 7, 2001).

Electricity or telephone service also may be disrupted in areas where offenders live or where supervisory staff work. Staff must have contingency plans in place for such an event. For higher-risk offenders, this usually will entail home visits until the utility problems are corrected. Similarly, there should be staffing plans in place in the event that monitoring or supervisory staff are ill, encounter bad weather, or are delayed by traffic problems. On-call staff should be available to assume responsibilities in such an event, and agencies should develop partnerships with law enforcement and other agencies.

Field Services

As noted previously, monitoring of offenders who are equipped with electronic supervision technologies may be provided by the agency that has sentencing or releasing authority oversight over the offender, or it may be provided by a private contractor. Private contractors should be required to provide an equivalent standard of service to that required by a justice system provider. The field services to be provided may include:

- Initial investigation of the home placement.
- Offender orientation and installation of equipment.
- Monitoring compliance with established schedules and verifying all activities by reviewing data from the electronic supervision instrument as well as through face-to-face, telephone, and collateral contacts.
- Monitoring compliance with court or releasing authority conditions.
- Documenting and inputting schedule changes as appropriate (e.g., to accommodate changes in hours of employment, counseling or other appointments, or to respond with incentives or sanctions for case management purposes).
- Recording and responding to offender status changes.
- Job placement, referral, and assessment.
- Substance abuse testing.
- Conducting regular counseling sessions.
- Preparing and distributing regular progress reports.
- Responding appropriately to noncompliance (e.g., discipline reports, violations, application of sanctions).
- Collecting, and perhaps disbursing, fees.
- Removing equipment from the offender's possession at the termination of electronic supervision.

Besides the above activities with offenders, agency personnel must maintain an adequate inventory of equipment, develop and implement a system for tracking equipment, test and clean equipment to assure it is working correctly, and

return or replace malfunctioning equipment. It is likely that some of these tasks will be performed by the equipment provider, but performance should be specified as part of the contractual agreement. If a private company is providing field services relative only to the electronic supervision, the sentencing or releasing authority oversight agency may still have responsibility for providing case management and other supervision services to the offender.

Recognizing that legally a supervisee cannot be excluded from an electronic supervision program because of indigence, there are still some basic necessities that must be present for a system to be used. An offender must have appropriate housing that does not inhibit full utilization of the proposed mechanism; that is, the housing must not be of such material or in such a location that it will interfere with the electronic supervision. In most situations, telephone service must be obtainable, and if the service is not in the offender's name or residence, the offender must demonstrate permission to use the telephone for the purposes of electronic supervision. The telephone service must be free of special features, such as call waiting, call forwarding, three-way calling, and answering machines, if the electronic supervision service requires it. Those providing field services to offenders on electronic supervision should routinely review offenders' phone bills to ensure compliance.

If a supervisee does not have telephone service, the agency or company may opt to provide a telephone, use cellular phones, or rely on an electronic supervision system that does not utilize telephone lines such as GPS. Some equipment allows monitoring of offenders without a telephone. In these instances, the receiver in the home monitors and records the offender's entering and leaving activity. However, the information is not downloaded until the offender takes the equipment to a telephone line, typically using the agency or monitoring service provider's phone. This type of equipment would not be appropriate for a high-risk offender where immediate information about program compliance is necessary. However, it can work well for a lower-risk offender. Monitoring information is generated; it only varies in when and how often the agency receives the information (L. Connelly, personal communication, September 7, 2001). Finally, the offender must maintain continuous electrical and telephone services (including paying utility bills on time) so there is no interruption of service and corresponding interference with the functioning of the electronic supervision equipment.

Develop Operational Procedures

To ensure field services are performed satisfactorily, an agency must develop operational procedures and, if utilizing a private provider of services, must specify who is responsible for providing each service. Defining and clarifying tasks and those responsible for performing them provides the framework for optimum application of electronic supervision and lessens the likelihood that necessary tasks will be overlooked. Each locality should develop individualized operational procedures to satisfy their needs, based on local jurisdictional laws and requirements as well as whether field services are provided by the sentencing or releasing authority agency, private provider, or shared between them.

Table 8a: Operational Procedures

Articulate enrollment process including selecting assessment process, establishing eligibility criteria, and designing forms Designate responsibility for installing and removing equipment and tracking inventory, including inspecting and replacing or returning damaged equipment.

Conduct offender and household member orientation by:

- Establishing rules for the offender and family/household members to sign.
- Delineating process for setting the offender's schedule and processing changes.
- Administering offender needs assessment and establishing requirements for offender's participation in the process to address identified needs.
- Explaining need for and establishing access to offender's residence.

Determine how and when visual inspections and unannounced home visits will occur and how they will be documented.

Define process for verifying all community activities and documenting verification.

Establish requirements for responding to compliance and noncompliance.

Establish requirements and protocols for notifying victims, as appropriate (e.g., domestic violence victims, victims of sex offenders, victims of personal attacks) of offender's placement on electronic supervision (unless victim indicates that contact is not wanted) and maintain contact as needed to keep victim apprised of offender's status.

Determine offender and program information that must be recorded and select method for entering, storing, and retrieving data.

Conduct process and outcome evaluation.

Case Management Resources

Case management services include assessing both the needs and risks an offender presents and developing an individualized plan to address the needs and lessen the risk. Electronic supervision supports the provision of case management services by providing both a punitive answer to noncompliance and a vehicle for monitoring an offender's movement in the community.

Supervisee assessment and eligibility criteria must be accurately and consistently applied so that appropriate selection of supervisees for electronic supervision can occur. Then the requisite services as identified by the needs/risk assessment can be implemented with the offender's participation monitored through electronic surveillance, or lack of participation can be sanctioned by instituting electronic supervision. Supervisee's counseling sessions and meetings can be monitored and supported, and the offender can be tested for the use of illicit drugs and alcohol, or other prohibited substances. Assisting adult and older youthful supervisees in securing and maintaining appropriate employment is an important aspect of case management. Supervisees may be referred to job placement services, employment skills classes, or employment opportunities, and electronic supervision can be a useful tool for monitoring supervisees' compliance with the referrals. Similarly, youth of school age can be assisted, supported, and monitored to maintain school attendance.

The offender's willingness to secure a job or participate in job readiness programs may be a determinant of eligibility for electronic supervision, particularly if the supervisee may be responsible for paying for the service. Additionally, the supervisee's participation in other case management referrals, such as counseling, substance abuse treatment, cognitive skills classes, and other services, may be both an eligibility requirement for and a result of electronic supervision.

Operational Procedures

A helpful step to foster successful use of an electronic supervision tool begins with establishing clear policies that stipulate procedures to follow when using any tool. Your agency should specify protocols for the enrollment process, which includes establishing an assessment process, establishing eligibility criteria, and designing forms. Designate responsibility for installing and removing equipment and tracking inventory, including inspecting and replacing or returning damaged equipment. Conduct supervisee and household member orientation by:

- Establishing rules for the supervisee and family/household members to sign.
- Delineating the process for setting the supervisee's schedule and processing changes.
- Administering offender needs assessment and establishing requirements for supervisee's participation in the process to address identified needs.
- Explaining need for and establishing access to supervisee's residence.
- Determining how and when visual inspections and unannounced home visits will occur and how they will be documented.
- Defining process for verifying all community activities and documenting verification.
- Establishing requirements for responding to compliance and noncompliance.
- Establishing requirements and protocols for notifying victims, as appropriate (e.g., domestic violence victims, victims of sex offenders, victims of personal attacks) of offender's placement on electronic supervision (unless victim indicates that contact is not wanted) and maintain contact as needed to keep victim apprised of offender's status.
- Determining offender and program information that must be recorded and select method for entering, storing, and retrieving data. Conduct process and outcome evaluation.

Graduated Responses

A continuum of sanctions and incentives should be available so that offenders can receive the appropriate level of response. This continuum, or graduated response model, is predicated on responding to lesser infractions with a lesser penalty and responding to greater infractions (or ongoing lesser infractions) with a greater penalty. Similarly, continued compliance would merit increasing the reward.

A cogent, well-designed system of responses can intersect the level of cooperation or resistance evidenced by the offender. Taxman, Soule, and Gelb (1999) examined several research projects to identify the features necessary to a graduated sanctions model. Those features can be applied as well to graduated incentives and are:

- Certainty: respond to every infraction or compliance.
- Celerity: respond swiftly.
- Consistency: similar infractions or levels of compliance receive similar responses.

- Parsimony: respond at the least level that is likely to produce the desired result.
- Proportionality: the level of response should equal the level of the offense or compliance.
- Progressiveness: continued noncompliance results in increasingly severe responses and continuing compliance merits increasing rewards.
- Neutrality: responses are an objective, impartial reaction to an offense or compliance.

Ultimate sanctions include the revocation of electronic supervision resulting in incarceration, while an ultimate incentive is the successful completion of electronic supervision and pretrial, probation, parole, or other community supervision. However, there are incremental and intermediate responses that can be employed and serve to guide the offender to behavior change and subsequent successful achievement of supervision goals. Jurisdictions may opt to generate a structured sanctions and incentives menu to delineate responses to noncompliance and compliance. This structured menu can make responses more consistent, more equitable, and more proportional to the seriousness of the violation or the level of compliance, as well as more certain and more swift. Each agency must develop its own menu of sanctions and incentives, and these may need to be modified further for particular offenders on a case-by-case basis. Oftentimes, offenders can help define effective sanctions and incentives that are meaningful for them.

Each jurisdiction must address the timing of the responses to infractions and determine if personnel will be available to respond during normal work hours, after hours, on weekends, or all three. Response times may need to be individualized based on offenders' exhibiting different levels of risk; higher risk offenders may require a more immediate response to infractions. However, both the type and timing of responses may be dependent on an agency's resources.

Responding to offenders' noncompliance through the application of sanctions has been the method with which most justice practitioners are familiar, but significant evidence suggests that providing incentives is a more useful and effective tool for changing behavior. Learning theory suggests that to most effectively change behavior, incentives should be delivered more frequently than sanctions (Andrews, Bonta, and Hoge, 1990) because:

- People respond better to positive reinforcement than to sanctions.
- Timely, consistent responses help offenders change to pro-social behaviors.
- Clear expectations and definite boundaries guide offenders toward behavioral goals.

Consequently, as indicated previously, those administering electronic supervision should incorporate a system for providing rewards for compliant behavior if behavior change is among the program's goals.

Effective use of graduated sanctions and incentives is dependent upon the court or issuing agency's willingness and ability to support and follow through with enforcement of the release conditions, as well as amenability to the delivery of sanctions and incentives. Electronic supervision administrators must establish operating procedures with a realistic view of

the oversight agent's position, and should neither promise nor threaten what cannot nor will not be delivered.

Electronic supervision field services may be provided for adult or juvenile offenders and by different types of agencies including probation or parole agencies, jails or detention facilities, residential programs, or private providers. Based on the type of services it offers and the clientele it serves, each electronic supervision services provider must develop sanctions and incentives that it has the resources to deliver and that will be meaningful to the offenders and stakeholders it serves. Each provider should also develop an explicit policy defining the levels of responses that can be administered without notification to the sentencing or releasing authority and the mechanism for supplying notification when action from the sentencing or releasing authority is needed. The policy should also outline the appeals process for an offender who disputes responses administered by the electronic supervision services provider.

Absconders

Providers of electronic supervision services need to have a policy for aggressively responding to offenders who violate by absconding. Areas to address in a response policy include:

- Determination of when to involve law enforcement or other arresting authority and how they are to be notified.
- Procedures to follow for filing orders of revocation including when and how to request a warrant for arrest.
- Process for retrieval of equipment from absconder's residence.
- Methods to secure restitution for lost or damaged equipment.

Offenders who abscond from electronic supervision may be subject to new charges such as escape or theft of equipment. Research of local laws can provide information regarding levying new charges in addition to violation or revocation charges on offenders who abscond (see chapter 5 on Legal Issues). Electronic supervision providers need to implement a system to search, apprehend, and return offenders who have absconded to the sentencing authority. To provide safety for the community and to maintain the integrity of electronic supervision, absconders must be diligently prosecuted.

Determination and Collection of Fees

If fees for electronic supervision services are to be paid by offenders, policy for determining the amount to be paid must be established, and the task of collecting the fees must be assigned. Offenders may bear the entire cost of their supervision, usually calculated on a per diem basis, or they may pay a portion based on their financial ability. An offender's financial obligations must be considered in determining his/her ability and responsibility for paying for electronic supervision, particularly court imposed obligations such as restitution, fines, and child support, and a priority for payment must be established. It is also important to consider the length of time that one will be supervised with an electronic supervision tool because this will greatly affect his or her ability to pay.

If electronic supervision fees are to be collected from offenders, collection procedures must be established, and if the fees are to be distributed to a third party, appropriate accounting procedures for disbursement must be put in place as well. It is possible for the service provider to also collect fees. Sanctions for nonpayment must be established and enforced. In the case of juvenile offenders, jurisdictions must research applicable laws regarding collection of fees and comply with any jurisdictionally specific regulations. Authorities may find it financially wise to provide electronic supervision, whether it is for juveniles or adults, even if the offender is unable to pay for any portion of the fees. It may be more cost effective than incarceration or institutionalization, especially if it allows the offender to maintain employment or provide care for minor children.

Besides regular program fees, agencies may want to hold offenders responsible for damaged or lost equipment, particularly if damage is intentional. Costs and procedures for such events should be established in advance. If offenders — especially juveniles — are unable to pay such expenses out of pocket, they might be required to perform community service instead. As mentioned previously, agencies should be careful when applying electronic supervision fees as these fees are often unpaid and may interfere with paying other court-ordered fees.

Equipment Inventory

Equipment inventory is an important and necessary part of the management of an electronic supervision system. Because of the expense involved and for accountability, agencies should have a system for tracking:

- Equipment assigned to particular staff.
- Specific equipment for each offender.
- Dates of use.
- Defects and repair history.
- Equipment upgrades.
- Retirement/disposal of equipment.
- Battery life/replacement.
- Calibration of alcohol testing units.

Many agencies already have inventory procedures for other types of equipment, and electronic supervision equipment may be added to this. However, if this is not already available, it may be an area to include with other monitoring services software. This type of information could be added to the other data that are gathered and stored by monitoring computers.

CONCLUSION

This chapter presented important information about the supervision of offenders with electronic technologies, emphasizing various options and procedures throughout. The electronic supervision field services provider uses personal and collateral contacts and the technological data from the instruments to:

- Obtain and provide information.
- Perform or acquire assessments of the offender's needs, risks, and strengths.
- Establish efficient provision of services.
- Formulate an individualized case plan with specific goals and objectives for each offender.
- Provide or refer the offender to treatment providers, other agencies, and community resources as needed.
- Advocate, intervene, assist, and track the offender's participation in the services provided.
- Monitor compliance with the conditions of release and the supervision plan.
- Administer appropriate responses to reward compliance and sanction noncompliance.
- Notify the court or releasing authority of status changes.

It is a long list of duties that comprise field services and case management, and the agent who performs these services will draw upon many skills to perform them effectively. Various instruments and tools are available to accomplish the supervision and the agent will want to make judicious use of those, but underlying all the activities is the interpersonal contact that is both integral and essential to effecting offender change.

9 HUMAN RESOURCES

The preceding discussions of funding resources and the types of individuals to be supervised, as well as topics that will be discussed in future chapters, including the selection of electronic technologies and the supervision of individuals with it, are all important areas. However, the most important aspect of using electronic supervision strategies is its staff. The people employed to implement this electronic component will largely determine its success or failure. Therefore, it is important during the planning process to give ample consideration to a variety of staffing issues.

This chapter will raise several questions for planners to consider and will make recommendations where possible. Much will depend, however, on the purpose of the electronic supervision tool and other decisions about how it will operate. This chapter discusses:

- Obtaining staff support for electronic supervision.
- Staff organizational issues that are particular to electronic supervision.
- Competencies and qualifications staff need.
- Staff training and development needs.

STAFF SUPPORT FOR ELECTRONIC SUPERVISION

A new electronic supervision tool brings change to an organization, and change can be disruptive. The idea of electronic supervision of offenders may not be greeted by line personnel with enthusiasm. An electronic supervision tool may be viewed as increasing already heavy workloads or as threatening to job satisfaction and security. Conversely, administrators may resist changes recommended by staff or feel the challenges of funding and administering new program components are not warranted by their perceived benefits. Further, professional unions may object to changes in staff job requirements that are necessary for effectively implementing electronic supervision strategies. Effective organizational change requires the empowerment of staff including the following tactics (Belasco, 1990):

- ***Vision*** — A clearly stated agency mission and purpose can help focus and motivate staff toward the achievement of a common goal.
- ***Participation*** — Involving large numbers of staff in drafting the mission, and the strategy to accomplish it, will unify and energize staff. Enthusiasm and interest are aroused for a program that one has helped to create.
- ***Organizational systems*** — Employees must be empowered with the means to accomplish the agency's goals. Training, communication, and reward systems give employees the tools to achieve the agency's vision and mission. These systems tell the staff what is expected of them; they provide opportunities to measure and report progress; they open channels for feedback; they motivate; and they reinforce efforts.
- ***Exemplary leaders*** — Visionary action must begin with those who introduce innovative practices to their staff. Administrators must exhibit the same dedication and commitment to the new initiative that is expected of all employees.

Despite careful planning, organizational change efforts often encounter obstacles. Four types of obstacles may interfere with change efforts. Possible ways of overcoming these are suggested:

1. ***Slowness of the change process*** — Desired change often takes longer than expected. People want to see results immediately. Planners can help quell dissatisfaction and maintain enthusiasm by reporting short-term progress to staff at regular intervals as the program is developed.
2. ***Exaggerated expectations*** — Frustration and disappointment may result from inflated expectations. While it is commendable to establish high goals, administrators must be aware of the limitations of resources at the agency's disposal. Throughout the process, mistakes should be acknowledged, not hidden. Some agencies may be able to make great strides through organization-wide problem-sharing.
3. ***Skepticism*** — Critics of the plan can throw the entire agency off course. However, negative comments should be neither squelched nor ignored. Some may represent valid criticism. Negative comments should be addressed directly. Sometimes through approaching skeptics personally, an effective leader can transform them into avid supporters. Administrators may also allay the negativity in critics by placing them in key roles to help facilitate the new program. Administrators must keep optimism alive by accentuating the positive while acknowledging imperfections. In the face of well-publicized short-term progress, pessimism will have a much harder time surviving.
4. ***Procrastination*** — A new program component should be fragmented into several workable pieces. Each step should be clearly outlined for those expected to implement it. Success is the cure for procrastination. Through the agency's communication system, the message of success should constantly be reported. Staff should be given opportunities to share their accomplishments and experiences with others in the organization.

Five processes are recommended for *streamlining organizational change*. These include (Scott & Jaffe, 1989):

- ***Preparation*** — Anticipate key elements, such as staff resistance. Describe accurately and thoroughly how the new program component may affect staff. If possible, implement only one major change within the organization at a time.
- ***Planning*** — Encourage staff input in the development of policies and procedures. Anticipate potential problems and develop contingency plans to deal with situations that might cause setbacks. Prepare goals and objectives and a timeline for achieving them.
- ***Transition Structures*** — Establish ways for staff to work together to accomplish goals. For example, a transition management group might be appointed to oversee the change, or a new communication mechanism might be developed to encourage staff to share ideas and provide feedback.
- ***Implementation*** — During initial implementation of the program component, administrators should remain flexible and continue to welcome feedback. Ongoing provision of information to staff remains important. Training that provides staff with knowledge and skills, and helps mold their attitudes, is crucial for successful implementation.
- ***Rewards*** — People who make the program component work successfully should receive acknowledgment for their contributions. Rewards can be personal and private (e.g., an oral or written statement of appreciation or a salary increase), or they may be public, such as an award or mention in a newsletter. Other rewards for staff may include status and esteem in the eyes of peers as well as the opportunity to develop additional expertise and skills. To foster and maintain employee enthusiasm for the electronic component, staff should be kept informed of all ongoing accomplishments and developments and any credit or support the agency receives as a result of the electronic component.

STAFF ORGANIZATIONAL ISSUES

Several important questions will have to be considered when determining the staffing needs and design for an electronic supervision program component. The answers to these questions—and the final staffing plan—largely will depend on decisions made about other aspects of the electronic supervision plan such as its purpose and the types of offenders who will be assigned to supervision with these technologies. Following are some of the questions planners need to consider; others likely will arise during each agency's planning process:

- **Will the offenders and staff supervising them be grouped into specialized caseloads for electronic supervision or integrated into pre-existing general or special caseloads?** If specialized electronic supervision caseloads are planned, a core group of staff with significant expertise about electronic supervision will be needed, and they also may need to be able to manage other aspects of offenders' supervision. If offenders who are electronically supervised will be assigned to various types of caseloads, a few staff may need extensive training in electronic supervision and be responsible for tasks such as installing and checking the equipment, but may not manage these offenders' cases.

Usually, it is not practical to have all agency staff equally trained and proficient in electronic supervision tasks.

- **Will it be necessary to have staff coverage to monitor and respond to alerts 24 hours per day?** The answer to this question will depend on the risk level of offenders assigned to electronic supervision as well as decisions about using in-house or contracted monitoring services. If the program's purpose and the offenders involved are low-risk offenders — for example, youth who have shoplifted and are being sanctioned with a few weeks of home confinement — it is not likely to be crucial to know and respond to the fact that they have broken curfew until the next day or Monday morning if the violation occurs on a weekend. Oftentimes, when the program's purpose is offender accountability or behavior change, violations can be used as a case management tool at any time in the supervision process. However, if the program's purpose is victim safety, public safety, or both — for example, if the supervisees are predatory sex offenders being monitored by global positioning systems — then an alert that such an offender has entered an exclusion zone around an elementary school should be known and responded to immediately by staff.

While these examples are extreme, planners must consider each offender's risk to public safety or specific victims as well as community attitudes toward offenders' potential violations. How would the program and agency be affected if a moderate- to high-risk offender being supervised electronically had the opportunity to commit a serious crime and no efforts to intervene could be documented for several hours or days? Would the decision on staffing be different if the program was using electronic supervision as an alternative to incarceration versus an intermediate sanction?

If agency staff have been accustomed to a five-day-per-week, 8:00 a.m. to 5:00 p.m. work schedule, changing some or all staff to a 24-hour per day, seven-days-a-week schedule may present challenges. Morale problems and union contracts requiring overtime pay are among the considerations in switching to a 24/7 staffing plan. Recommendations in the previous section of this chapter on managing organizational change may be helpful in getting the cooperation of staff for such a change.

- **What size caseloads, or how many staff, will be needed for an electronic supervision program component?** Again, planners will need to consider the purpose and supervisee risk level as well as organization decisions (e.g., specialized or general caseloads) to answer this question. If electronic supervision staff will specialize only in the mechanics of the technology by performing such tasks as installing and removing equipment and ensuring that contracted monitoring services are being performed properly (e.g., work release programs, monitoring in lieu of short-term incarceration), then the number of dedicated electronic supervision staff will be limited, and caseloads may be higher. If dedicated electronic supervision staff are handling both the technical and case management aspects of supervision (e.g., installing equipment, responding to alerts, and providing case management services), more staff are needed, and caseloads should be smaller. Some agencies have divided staff into surveillance officers who respond to alerts on a 24-hour per day basis and case management staff who handle all other aspects of the individual's supervision. If this staffing option is used, effective communication mechanisms among staff supervising the same individual must be in place. If the agency will be performing its own monitoring services, then additional staff for this purpose will be required.

Additional staff organization issues that are addressed by Renzema (1992) include:

- Violations are likely to be more frequent in the beginning phases. If alerts are responded to consistently, offender violations are apt to decline.
- The length of time offenders are supervised electronically is one factor affecting staffing levels. If many offenders are supervised for a short time, more staff will be needed for installing and removing equipment and responding to alerts than if fewer offenders are supervised for longer periods. However, another factor that affects staff-client ratios is the amount of casework needed for each offender. If staff are seeing each offender regularly and attending to other case management tasks (e.g., referring to and monitoring treatment, verifying collateral information, counseling clients) then smaller caseloads are needed.
- It may be possible to prioritize offenders for responding to alerts, especially if a variety of offenders with different risk levels are being supervised electronically. Staff who monitor the alerts will receive a great deal of information and need a framework for processing and responding to it.
- If an agency performs its own monitoring services, qualifications of monitoring staff may be different from those of staff who manage the offenders. Monitoring software is menu driven and staff such as clerks can become proficient in using it with minimal training.

STAFF RESPONSIBILITIES AND QUALIFICATIONS

As with other topics discussed in this chapter, staff qualifications and responsibilities will vary according to the purpose of the initiative, where it is located within the justice system, the types of individuals being supervised, and the technology selected. Therefore, rather than trying to provide specific information, this section discusses general qualifications and responsibilities of four types of staff:Managers.

1. Equipment specialists.
2. Monitoring technicians.
3. Offender supervision staff.

These four categories are used to group the major types of responsibilities needed for an electronic supervision component. However, more than one of these may be performed by the same staff; it is not necessary for agencies to have separate staff for each of these functions.

(1) Program Component Manager

Each strategy using electronic supervision should designate a manager or administrator to lead. Depending on the size of the electronic supervision caseload, these duties may or may not consume all of this person's time. However, it is crucial that the staff leader be knowledgeable about the technology and the role the technology will play in the local system, and he or she must have the authority to make significant decisions. The manager is the guardian of the agency's vision and mission. The areas for which the designated staff leader will need to take responsibility encompass the following, and, in

some cases, more than one person or one level of staff may share these responsibilities:

- Policies and procedures for the electronic supervision program component, including general operational procedures, staff safety strategies, and crisis management processes.
- Procurement of equipment and contracted services.
- Selection, supervision, and scheduling of staff.
- Relations with other agency staff, public policymakers, the media, and the public.
- Regularly monitoring the operation of the program component (e.g., daily, weekly) for compliance with policies and procedures.
- Directing the evaluation of the program component.
- Managing the program component's budget and other resources.
- Assisting staff with individual offender case decisions, approving case decisions, or both.
- Determining staff training and development needs and obtaining or providing needed training.

Managers need to be capable leaders with administrative and supervisory experience. They need a fundamental knowledge of the technology used in their case plans. They also should be effective staff managers and be able to interact productively with agency staff, the media, and the public. They must maintain an overall view of the electronic supervision component and how it fits within the entire agency while attending to details when necessary. They must understand the benefits of evaluation, be able to implement or direct the implementation of an evaluation, and have the capacity to use evaluation findings to improve electronic supervision practices. They must be fiscally responsible and creative in obtaining and using resources wisely. Finally, they must understand the offender population served and be able to assist staff in making appropriate decisions about case management.

(2) Equipment Specialists

Staff need to be knowledgeable and skillful about using electronic supervision equipment. As discussed previously in this chapter, it may be the responsibility of all staff who work with offenders to install, remove, and maintain equipment, or designated staff may perform only these functions while others work directly with supervision issues. Even if specialists are employed to handle most of the equipment procedures, all staff coming in contact with offenders should check equipment for apparent tampering attempts. Therefore, even if staff have different duties, offender supervision staff should be able to perform some of the following duties as well. Examples of responsibilities that should be performed by equipment specialists include:

- Installing equipment.
- Removing equipment.
- Inspecting equipment for tamper attempts.

- Maintaining the necessary inventory of equipment and consumable supplies.
- Preparing returned equipment for subsequent use.
- Recovering lost or damaged equipment, if possible.
- Troubleshooting equipment problems or malfunctions.
- Performing maintenance on equipment or obtaining needed repairs or replacements from the manufacturer.

Besides the electronic supervision equipment, equipment specialists or other staff (depending on how the agency is organized) may need to perform many of the above tasks for other equipment needed as part of the electronic supervision tool as well. This may include cellular telephones, two-way radios, pagers, computer equipment, general office equipment, self-defense items such as pepper spray, and, if used in the program, agency vehicles, weapons, and body armor.

Equipment specialists should have a full knowledge of the equipment and its use, and a basic understanding of how the technology operates. They should be able to interact appropriately with offenders and other household members when they are installing, removing, inspecting, maintaining, or repairing the equipment. They also should be able to communicate effectively with equipment vendors/manufacturers and with offender supervision staff about any issues or problems they observe.

(3) Monitoring Technicians

Monitoring technicians will manage the data produced by computers that receive information from the electronic supervision equipment. Responsibilities that are typical of monitoring technicians include:

- Entering the necessary information in the computer program to enroll a new offender in the electronic supervision program component.
- Entering changes in schedules, inclusion and exclusion zones, and the like into the computer for individual offenders as directed by the offender supervision staff.
- Reviewing, logging, and processing incoming offender alert information.
- Responding to alerts according to agency policies, such as attempting to telephone the offender or otherwise verify his or her whereabouts.
- Keeping accurate notes on all attempts to follow-up on alerts (i.e., calls made, information obtained from or about offenders).
- Keeping accurate notes on any "false alerts" generated by the computer (i.e., cases in which an alert occurs even though the offender is where he or she is supposed to be).
- Notifying or dispatching appropriate staff for offender alerts that cannot be disposed of according to agency policies.

- Maintaining required databases of offender violations and other information.
- Compiling information as needed for reports.
- Terminating files for offenders who have been removed from the electronic supervision program component.

Monitoring technicians must have a basic understanding of computer operations and must be able to use the monitoring software with speed and proficiency. They must be organized and attend to details in the processing of alerts and notification of offender supervision staff so that potential violations do not fall through the cracks. They must be able to write accurate and complete notes about activities related to verifications of violations, and they must be able to communicate verbally in a clear and effective manner. They also should be skilled in interacting with offenders and/or other household members or employers when they must check on a possible violation. They must be able to make discretionary decisions about which offenders to report to supervisory staff and how quickly to do so. Finally, they must be able to function well in a fast-paced environment that, at times, will be hectic and distracting.

(4). Offender Supervision Staff

While offender supervision staff may perform some of the functions discussed under other staff categories, their primary responsibilities include interacting with and making decisions about offenders who are being supervised electronically. The following are among the specific duties of offender supervision staff:

- Screening offenders for eligibility for the electronic supervision program component.
- Determining offenders' ability to pay for electronic supervision services.
- Receiving and processing offender payments, if applicable.
- Obtaining necessary information to enroll offenders and victims in the electronic supervision program component.
- Conducting comprehensive offender and family orientations.
- Determining or approving changes in curfews, schedules, and inclusion and exclusion zones and ensuring that those operating the monitoring computers receive this information in a timely manner.
- Responding to violations according to agency policies.
- Filing violation reports.
- Conducting other supervisory tasks such as counseling, home visits, job-site visits, and referrals for services for offenders, victims, or both.
- Ensuring that offenders are complying with requirements such as school and work attendance, abstinence from alcohol and other drug use, and involvement in treatment programs.
- Observing equipment for signs of tampering.
- Observing offenders for signs of drug or alcohol abuse or criminal activities.

- Working with victims, if applicable (such as domestic violence or sexual offense victims).
- Observing household members for indications of abuse.
- Keeping accurate records of all work with offenders and victims.
- Observing agency safety procedures.
- Keeping program management staff apprised of any potential problems.
- Completing tasks necessary for the termination of offenders or victims from the electronic supervision program component.
- Interacting as needed with other justice system personnel (e.g., law enforcement, prosecutors, judges) about specific offenders.
- Handling crises and emergencies properly.

Offender supervision personnel must have knowledge and skills to work successfully with the individuals assigned to supervise and their victims. They will need case management skills and should be able to respond calmly in crisis situations. They must use good judgment about processing alerts, referring cases for follow-up action by agency supervisors or the courts, and assessing their personal safety risks.

They need to have a fundamental understanding of the electronic technology and is applications so they can understand the validity of alerts they investigate. They should work in an organized manner and be meticulous about completing reports and submitting information on curfew or other changes to monitoring staff or service providers. Based on agency policies, staff who investigate violations may need peace officer status, or they may need to work closely with law enforcement personnel if arrests are required.

While the preceding duties and responsibilities were presented in separate categories, in many programs—especially smaller ones—same staff member will perform more than one set of functions. For example, the duties of equipment specialist and monitoring technician might be performed by the same individual.

INITIAL AND ONGOING STAFF TRAINING AND DEVELOPMENT FOR ELECTRONIC SUPERVISION

Staff training regarding the electronic supervision of offenders should occur on multiple levels within agencies providing these services. All staff should receive general training about the purpose and goals of the program component and offenders who are appropriate to refer to the program (Friel, Vaughn, and del Carmen, 1987). Training about the program should also extend beyond the agency to other criminal justice agency personnel (e.g., law enforcement officers, prosecutors, judges) who may interact with the staff in some fashion. They also need to understand the purpose of electronic supervision and its goals, the basics of how the technology works, the reliability of the technology, and criteria

for selecting individuals to supervise with electronic tools.

Staff responsible for the implementation of electronic supervision need in-depth training about their responsibilities. Staff training at this level is aimed at ensuring that policies are implemented as intended and that staff are operating the program component in a consistent manner (Cohn, 1999).

Training of electronic supervision personnel should consist of a combination of knowledge, skills, and values or ways of thinking about their work that they will need to conduct the program successfully. Table 9a contains a list of some of the topic areas in each of these categories that may be needed in a staff training program. These may apply to any or all of the categories of staff discussed in the previous section of this chapter.

Equipment manufacturers usually will provide training to staff on how the equipment functions and how to operate it appropriately. Contracted monitoring service providers also may be able to provide training about the way their services operate. Whether staff training is provided by program supervisors or a training specialist, it is important to gear training

Table 9a. Training Topics For Electronic Supervision

Knowledge	Skills	Values/Attitudes
• Program purpose and goals	• Offender screening procedures	• Benefits and disadvantages of using electronic supervision strategies
• Fundamentals of the electronic technology used – system equipment and capabilities	• Case management and supervision	• Importance of public and victim safety
• Electronic supervision program component policies and procedures	• Completion of required forms, reports, and other written materials	• Electronic supervision as an adjunct to other case management approaches and part of a larger approach to working with offenders and victims
• Offender selection criteria	• Proper installation and removal of equipment	• Importance of program evaluation
• Reliability of electronic supervision equipment and potential ways of tampering with it	• Inspection of equipment for tampering, malfunctions, or other problems	• Offender accountability
• Meanings of alerts and violations (with information on grace periods, acceptable excuses, etc.)	• Reading computer-generated reports	
• Community and case management resources	• Responding to alerts and violations	
	• Appropriate applications of incentives and sanctions for compliant and noncompliant behavior	
	• Crisis management	
	• Staff safety procedures	
	• Correct entry of data in computers	
	• Data collection for program evaluation	

Sources: Cohn, 1999; Cook County Sheriffs Electronic Monitoring Unit, n.d.; Friel & Vaughn, 1986; Friel, Vaughn, & del Carmen, 1987.

methods to the type of content being conveyed to trainees. Thus, one would approach the presentation of knowledge, skills, and values/attitudes in different ways. Table 9b provides a summary of some practical ways to present each of these areas.

Beyond the professional training just discussed, electronic supervision programs will need to design training for offenders and victims using the equipment and for household members living with them. These individuals will need to understand the purpose of the electronic supervision program component, how the equipment operates, how to care for the equipment, procedures to take if equipment fails or if a crisis occurs, and procedures that will be taken if alerts or violations occur (Friel and Vaughn, 1986).

Table 9b. Content Presentation Methods

Knowledge	Skills	Values/Attitudes
• Presentations, lectures	• Demonstrations	• Values clarification activities
• Audio-visuals	• Stimulations	• Discussions
• Demonstrations	• Case examples	• Debates
• Texts, handouts	• Role-playing	• Audio-visuals
• Panels	• Games	• Articles/handouts
• Discussions	• Texts	• Evocative questioning
• Debates	• Audio-visuals	• Role-playing
• Observations	• Structured tasks	• Opinion papers
• Questioning	• Coaching	• Case studies
• Field or site visits	• Modeling	• Experience sharing
	• Clinical practice	• Modeling
		• Games
		• Field or site visits

Source: Crowe & Schaefer, 1992

Staff Burnout/Information Overload

Community supervision is not an easy job. The duties are placed on top of other administrative duties that are seldom talked about such as waiting in court, travel time to field visits, paper work, training, and other tasks. The point here is that

each electronic supervision tool comes with different amounts of stress and workload points. Consider the supervising hundreds of offenders with kiosk reporting. While these offenders are defined as lower risk, this does not necessarily mean they are lower needs. This undoubtedly will increase officer stress as some of these offenders have substance abuse, employment, and housing problems. On the other end of the spectrum, is the GPS tracking of high-risk sex offenders. As anyone working in the community corrections field knows, there are few offender types receiving more public and political attention, and no doubt officers feel the stress and fear that one of the high-risk sex offenders will attack someone.

Agencies must have psychological services for officers to relieve their stress in a safe and neutral environment. If officers are forced to keep things bottled up it may lead to employee turnover and poor work performance. There are numerous reports of how GPS supervision of high-risk sex offenders causes officers anxiety due to the frustration of late night alerts, equipment failures, and phone calls. Officers report having to take two vehicles when going out for dinner with their family because they are not sure if they will be called away. Others talk about wanting to throw their cell phone into the river so they can have a peaceful night's sleep or watch a movie with their family. While electronic supervision tools used for low-risk offenders come with specific workload and staff burnout issues, it is GPS tracking of high-risk individuals that causes the greatest amount of stress. GPS supervision is time-consuming and often frustrating for officers. Therefore, agencies must go out of their way to train and counsel officers responsible for GPS caseloads to prevent burnout and stress.

CONCLUSION

This chapter provided an overview of some of the human resource issues related to implementing a program with electronic supervision. Ways of managing organizational change to gain staff support were discussed. Several important considerations regarding program staffing also were addressed. Finally, staff responsibilities, qualifications, training, and development needs were presented.

10 INFORMATION MANAGEMENT AND EVALUATION

In this guidebook, we have discussed the importance of evidence-based practices to the community corrections field. The idea of evidence-based practices is to identify effective community supervision practices, and to eliminate or adjust those practices found ineffective. Evidence-based practices are rooted in observation and measurement. In order to measure and interpret outcomes, agencies need to collect information about the implementation process and ongoing practices involved in the evaluation. Simply put, if you are interested in determining whether kiosk reporting enhances the community supervision of lower-risk offenders, you will need to define what it means to be low-risk, what a success is, and many other specific features involved in evaluation research.

The purpose and the type(s) of evaluation planned will determine the information that must be collected and maintained. Thus, each agency must begin planning both its management information system (MIS) and its evaluation plans at the same time that initial planning for the implementation of the electronic supervision tool is taking place. Critical to the establishment of both an effective MIS and a useful evaluation process is stakeholder commitment to initiate and support both processes and to obtain and use results in a thoughtful, meaningful manner to effect performance.

Public scrutiny and tight resource conditions require community corrections agencies to identify positive outcomes and effective implementation strategies. Resources should be invested in the most cost-effective methods to decrease reoffending and to increase offender self-sufficiency. The function, organizational structure, and expectations for community corrections agencies vary by jurisdiction. There is little research identifying the most effective community supervision practices, as few departments are equipped with adequate research divisions (Petersilia, 2003). Information management, however, is not predicated on agencies having formal research divisions. Most agencies have adequate computer technologies to keep records of individuals supervised with an electronic supervision tool. These technologies allow for maintaining the most basic information to start an information system; while this is not the ideal situation, it will work for smaller agencies. The point here is for agencies lacking large research divisions to shift their thinking

away from believing that because they have limited information maintenance capabilities that they cannot collect any information. This is not true. Evidence-based practices are often identified with simple descriptive data sets, which are data that describe offenders, a supervision tool, and some measure of outcomes. This chapter is intended as something of a primer for agencies to better understand the evaluation process.

INFORMATION MANAGEMENT

An agency's MIS must yield valid, reliable information, yet must operate within the confines of the agency's resources and expertise. Some factors to consider when developing an MIS include (Crowe and Schaefer, 1992):

- Ease of use — The system should be as uncomplicated as possible and multiple staff should be trained in operating the MIS with updates as needed so that personnel changes will not unduly hamper entering and maintaining information.
- Ease of retrieval — Information should be easily retrievable and should be available in formats to fit the needs of the consumers.
- Speed of compiling information — Ready access to data enables timely reports and allows access to information on demand if needed.

Determine the Information Needed

At its essence a management information system is a mechanism for storing data and producing it as needed to be read, searched, extracted, sorted, compiled, converted to reports, and analyzed. A good information management system provides data to meet the following needs (Torbet, 1997):

1. *Operational*. An MIS should offer an efficient way to record case processing transactions related to the initiation, handling, monitoring, and closing of cases. A system should support the core activities of the officer or agent conducting the electronic supervision and have the capacity to record detailed data on specific decisions, events (compliance and infractions), and responses as they occur. Data, if entered punctually, can provide immediate access to those with a need to know.
2. *Management*. For decision-making, management analyzes the operational activities with a focus on efficiency and effectiveness. An MIS should provide management with information to monitor the provision of services, identify trends, make changes as needed, keep track of costs, and compile reports. The system should support management with a capacity to show interrelationships between data elements and to present aggregate information across many cases or case events.
3. *Evaluation/research*. Data must be available to conduct both process and outcome evaluation of the program. Thus, the MIS needs to have the capability to maintain and produce data to support decision-making and to assess progress toward achievement of the program's purpose and goals. (Evaluation is more fully discussed in the next section.) To support both evaluation and research activities (e.g., comparison of the performance of a group of offenders who were electronically supervised versus a similar group of offenders who were not or changes in the

number of offenders incarcerated after the implementation of electronic supervision), the MIS should have the capability of extracting data for statistical analysis and exporting it in widely readable formats and other statistical software packages.

A good information system is designed with the knowledge that different people will need different types of information. The officer conducting electronic supervision may be most concerned with accurate information maintained on individual clients and with immediacy in the availability of data; managers may be more interested in cost-effectiveness, both of the management information system and of the program for which the information is being managed, and in access to aggregate information; agents, managers, and others, including funding sources, will be interested in data to assess the success of the program. In the development of an MIS, it is important to define everyone's information needs, design the system accordingly, and build in flexibility to make changes as needed.

Today's technology allows agencies to consider information management beyond their own walls. Integrated information systems are increasingly needed to ensure effective decision-making at various levels. For example, line personnel need the capability to access background and current status information about each offender they supervise, and agency managers and administrators need information that lets them evaluate their programs within a larger context. The electronic exchange of information among justice system agencies and related community organizations is increasingly important. When considering the information management system needs of a program for its electronic supervision component, the broader picture must be examined also, including how information about the results of offender supervision can and should be shared with other agencies and what information may be needed from other entities to make effective case management and agency management decisions. When such information sharing tasks can be automated, time and other resources will be saved.

However, important considerations in any management information system are privacy, security, and public access. Although their rights are diminished, offenders, their families, and victims still have basic rights to privacy of some personal information. Therefore, when designing information systems, it is vital to consider precisely what information may be shared and in which situations confidentiality must be maintained. System security is another crucial consideration. If the information system can be compromised by unauthorized users, the credibility of electronic supervision may be called into question. Finally, there is the need to consider public access. Recently, more information about offenders has become publicly available, especially through such mechanisms as sex offender registries that are published on agency web sites (e.g., www.nsopr.gov). It may be appropriate for the public to have access to certain information, such as when a violent offender absconds, but it may not be appropriate for the public to know each time a low-risk offender violates his or her curfew. Agencies must give careful consideration to the nuances of information sharing and make decisions that are in the best interest of public safety as well as offenders and their victims. The Department of Justice is involved in several initiatives to improve on inter- and intra-agency information flows, with such initiatives as the Global Justice XML data model, the National Information Exchange Model, and newly created Fusion Centers (for more

on these initiatives, see www.it.ojp.gov/index.jsp).

Develop Information Collection Procedures

Developing appropriate data collection procedures is an important step in implementing a management information system. Agencies must devise forms, software, data storage formats, and data retrieval mechanisms that will facilitate access to information as needed. Agencies must also designate personnel to enter, maintain, and retrieve data and to provide appropriate personnel training.

Agencies may depend upon the monitoring service provider to maintain and provide data, they may set up their own system, or the record keeping duties may be shared between the agency and the service provider. Planning at the outset for mutually sharing data electronically and ensuring compatibility of electronic data storage formats with existing record keeping systems will greatly enhance the accuracy and availability of data and allow for prompt information retrieval.

EVALUATION RESEARCH: A PRIMER FOR THE COMMUNITY CORRECTIONS FIELD

Administrators routinely need to demonstrate the *merit and worth* of a program, policy, or practice to stakeholders. The process required to do this is referred to as an evaluation. There are many types of evaluations, many ways of carrying out evaluations, and many different purposes attached to each evaluation (such as efficiency assessments discussed in the previous chapter). This chapter is not designed to provide you with a template for conducting your own evaluation. Instead, we plan to provide community corrections personnel with something of a primer by introducing you to some of the basic language and purposes of evaluation research (for more practical strategies for conducting an evaluation, see Fitpatrick, Sanders, and Worthen, 2004; Nachmias and Nachmias, 1996; Maxfield and Babbie, 1998). Community corrections administrators are busy carrying out numerous aspects of their daily jobs, and until recently have lacked interest in evaluation research. One reason for this reluctance is the fear of a negative evaluation—that is, finding that current practices have not achieved their desired goals or, even worse, a new practice actually causes more harm (e.g., scared straight programs, boot camps; for a systematic review of these programs, see www.campbellcollaboration.org/CCJG/reviews/published.asp).

Evidence-based practices are rooted in more than just conducting evaluations to prove whether something works or does not work. The community corrections field should, instead, understand the notion of evidence-based practices as a paradigm shift into a more open organizational structure. This organizational structure is dependent on allowing for (and even encouraging) organizational change. With organizational change as a central feature, agencies can openly admit that they found that a particular strategy does not bring about the intended goals, which does not necessarily signal a failure. When evaluation research uncovers unintended negative outcomes, administrators should admit this and look for alternative strategies to achieve the desired results.

Evaluation relies on the systematic collection and analysis of data needed to make decisions, and should be an integral part of most community corrections practices.

Consider visiting your family doctor for a sore throat. The doctor may assume that you have strep throat because you have swollen tonsils, a fever, achy muscles, and have had several bouts of strep throat in the past few years. The physician is confident in telling you to rest, and prescribes you an antibiotic, assuming you have strep throat. Your doctor does not, however, perform a throat culture to determine if you have strep or not. Nonetheless you leave the doctor's office and head straight for the pharmacy to retrieve your antibiotics. Then, you return to the doctor's office shortly after finishing the first round of antibiotics, and tell the doctor that the symptoms are persisting, so a stronger antibiotic is prescribed. Still, no throat culture is performed. Once the second round of antibiotics are finished, you realize that the doctor is not using scientific procedures—only professional judgment—to make the diagnosis and you are tired of feeling bad, so you visit a different doctor. The next doctor immediately conducts a throat culture to test for strep throat, and, much as you suspected, the test comes back negative. Now you have ruled out strep throat. So what could it be? More information is collected, analyzed, and interpreted to reveal that for the past month you have had mononucleosis—mono for short.

The point here is not to suggest that all doctors hand out antibiotics without conducting scientific inquiry, but rather to highlight the need to utilize scientific processes even though you think you know the answer to the problem because sometimes you may not even know what the problem is. The community corrections field is full of highly intelligent and capable people, but no one is above fact checking and scientific inquiry (see Payne and DeMichele, 2008). Community corrections practices also need to be assessed to measure their merit and worth. Administrators should not fear evaluation outcomes, but rather prepare for them by creating an organizational culture that embraces measurement and exhibits a willingness to change. Flexibility is paramount. Potential unintended outcomes must be confronted early on, not tip-toed around to a point when public safety is jeopardized, much like our mono sufferer. Instead, community corrections agencies should see evaluations as an opportunity "to ensure quality, competitiveness, and equity in delivering services. . .[and] to show. . .whether or not services and improvement efforts [are] succeeding" (Stufflebeam, 2001, p. 8).

Conducting an evaluation of an electronic supervision program is an essential step in the development process, and the effectiveness and utility of the evaluation is inherently dependent on establishing the purpose and goals intended for the electronic tool. The goals should be concrete, measurable, succinct, and written. Without clarity of the program's purpose and goals, an evaluation can only chart activity and cannot measure achievement. One of the pioneers of evaluation methods, Daniel Stufflebeam (2001, p.11), states that "evaluation means *a study designed and conducted to assist some audience to assess an object's merit and worth*" (italics in original). Evaluation relies on the systematic collection and analysis of data needed to make decisions, and should be an integral part of most community corrections practices.

The second critical need for successful evaluation is to have access to appropriate data. Information should be available to provide quantitative and qualitative assessment of activities, i.e., a description and assessment of program participants, materials, and activities. The quantitative assessment, along with other qualitative information, should provide the basis for making judgments about the results and impact of the program: it should not be based on assumptions, beliefs, or feelings—again, as with the case of our mono patient. A multi-pronged evaluation research strategy will combine quantitative and qualitative information to make a full assessment of the practice being evaluated.

A third aspect of evaluation of an electronic supervision tool is a cost-benefit analysis. If the tool achieves its goals but does so with excessive expense relative to the usefulness if offers, is it a viable alternative or enhancement to other forms of justice system control?

Science: Tool for Effective Community Corrections Practice

Evaluation research belongs to a broad category of scientific inquiry referred to as applied research (see Babbie, 1998; Rossi, 1980). Applied research is just that—it is the use of scientific methods to understand the *processes* and *mechanisms* at work to bring about specific outcomes in an applied or practical setting. This sort of research is common in the educational, medical, and organizational fields, as well as in criminal justice studies. Before having flashbacks to a social science methods course you had in college and skipping to the next chapter, you should not see science, theory, and evaluation research as some academic's escape from reality, but rather as an opportunity to uncover the effective pieces (mechanisms) at play in any successful or unsuccessful supervision practice (see Garland, 1990). Evaluators and criminal justice practitioners need to think of themselves as part of the same team, but there cannot be pressure to obtain certain findings.

Payne and DeMichele (2008) provide a description of how community corrections professionals should understand some of the ways science can help them do their jobs more effectively—as is done in many other professions. These researchers mention seven foundational principles of applied scientific inquiry when evaluating the effectiveness of electronic supervision tools: (1) relativism, (2) objectivity, (3) ethical neutrality, (4) parsimony, (5) determinism, (6) skepticism, and (7) empiricism (Bierstedt, 1970). Before describing specific types of evaluations —i.e., process and impact—important for electronic supervision technologies, we will briefly describe each of these seven principles

identified by Payne and DeMichele (2008) as well as several additional terms commonly used by researchers conducting evaluations of electronic supervision tools. Community corrections' strategies are designed to most effectively foster behavior change among supervisees (hence improving public safety), and although evaluation methods may appear as unimportant to your everyday job, they have the potential to improve your delivery of services. Therefore, we believe that it is essential for community corrections staff to have at least a cursory understanding of some of the language used by the research community. Below we briefly define some common terms used by researchers.

***Relativism*:** points to how cultural and technological changes have brought about adaptations and altered expectations of electronic supervision tools. At one time, not that long ago, the idea of charting offender movements remotely was unthinkable. Ironically enough, it is said that the first electronic monitoring system was inspired by a Spiderman comic strip. Simply put, cultural preconditions (e.g., education, other technologies) existed to reduce the learning curve necessary for officers to be comfortable using such equipment, for offenders to comply with such conditions, and for the public to expect more cost-effective electronic incarceration alternatives.

***Objectivity*:** demands that researchers and practitioners remain *value-free* in their observations, measurements, analysis, and interpretation of findings. While philosophers and social scientists have said much about the idea of objectivity, what is important for your purposes is to avoid "allowing one's attitudes and beliefs to influence the application of technologies. . .[which will]. . .limit the ability of tools to control and influence human behavior" (Payne and DeMichele, 2008, p. 6). Objectivity is the opposite of subjectivity, in which the latter is rooted in individual assumptions and values. Evaluators should not have any interest (financial or otherwise) in the results found.

***Ethical Neutrality*:** evaluation research must adhere to ethical principles, and administrators should ensure that evaluators have approval from a qualified Human Subjects Review Board. It is easy to think of several examples in which researchers ignored ethical issues such as the well-known Tuskegee Syphilis Experiment (Black men were given syphilis instead of the promised vaccine) and Zimbardo's Stanford Prison experiment (students were enrolled as mock prisoners and guards with traumatic results for participants). Simply put, whenever researchers have contact with supervisees, ensure that participation is voluntary, and that all results are kept anonymous so that supervisees are not sanctioned for their involvement (or lack of involvement) in the research. Similar conditions should exist for staff, and staff should not be forced to participate so that if any staff do participate, there cannot be any work-related sanctions stemming from their participation (or lack thereof).

***Parsimony*:** refers to the pursuit of finding explanations that are as simple as possible. Payne and DeMichele (2008) point out how this is most common in the physical sciences, with Einstein's theory of relativity (i.e., energy is a function of mass multiplied by the speed of light) as the best and most popular example. The social sciences, in certain respects, are more complicated, but some criminologists suggest that crime causation (at the microlevel) can be explained through the interaction of three elements: (1) a motivated offender, (2) a vulnerable target, and (3) the absence of a capable guardian

(Cohen and Felson, 1979). Payne and DeMichele (2008) show how the use of electronic supervision tools can benefit from these perspectives: (1) controlling and deterrent effects (potentially) develop an unmotivated offender; (2) exclusion zones and bilateral communication tools (potentially) empower victims by reducing their vulnerability; and (3) the combination of an electronic tool and a community supervision officer become the capable guardian. This is not meant as an endorsement of routine activities theories, but simply to demonstrate the importance of evaluators providing thorough, yet refined explanations for their evaluation results and suggestions.

***Determinism*:** suggests that certain human behaviors will manifest when specific conditions are present. Determinism is the opposite of free-will, which suggests that humans have the ability to adapt to various contexts due to individual desires. One example of a deterministic viewpoint is to suggest that X always causes Y. To fill in this equation we can use the simple relationship between gender and asking for directions. A deterministic perspective might suggest that males *never* ask for directions when lost, but females *always* ask for directions. Most of us can see that this is an overgeneralization. Similarly, evaluators should not provide overly deterministic interpretations of findings, such as all offenders with certain characteristics (the X's) will exhibit certain behaviors (the Y's) all the time. Researchers have a word—*stochastic*—to suggest that human behavior is explained better as probabilities. That is, certain characteristics have a certain (non-zero) probability or likelihood of fostering either increases or decreases in the presence of certain behaviors. One example is to suggest that all individuals with previous substance abuse problems will always reoffend, which is not the case. Evaluation findings should be presented to demonstrate how electronic supervision technologies either increase or decrease the likelihood of various behaviors such as attending and/or completing treatment, paying restitution, technical violations, or revocation.

***Skepticism*:** is the principle of continually questioning the accepted or taken-for-granted order of things. To put it simply, do not be afraid to question evaluators' findings. This is not to suggest being confrontational or argumentative due to the findings, but rather to question how the evaluators went about coming to their conclusions—by always looking critically at their methods. There are many examples of criminal justice evaluations that found exciting results in which it was later revealed that the researcher(s) made a mistake. So, ask questions, listen to their answers, and be willing to look for middle ground. Payne and DeMichele (2008, p. 12) provide some good advice to consider when evaluating electronic supervision tools: "...[do] not assume that electronic supervision technologies work simply because they are available. A tool can look good, sound good, feel good, and make sense in theory. This does not, however, mean that a particular tool is effective...policymakers and practitioners must continuously question and re-question whether electronic supervision technologies are working effectively and efficiently."

***Empiricism*:** suggests that knowledge is gained through experience by collecting and analyzing data. Evaluators should base all their assertions on real-life experiences and data regarding the electronic supervision tool. Do not allow speculation or assumptions to lead an evaluation—all decisions are based on empirical data.

***Dependent and Independent Variables*:** the point of conducting an evaluation is to identify the merit and worth of a particular practice or program. Merit or worth in a community corrections setting typically refers to the effect of some intervention on the behavior of others. Let's take a hypothetical case of high-risk sex offenders supervised with GPS location tracking. Here we want to isolate the effects of the GPS part of the supervision strategy, so we could compare sex offenders that received GPS with similar sex offenders not monitored with GPS. In this situation, the independent variable is the GPS intervention (sometimes referred to as a treatment variable) and the dependent variable is the outcome being measured—for this example, return to prison. This is a simple example that could be further extended to include many independent variables such as residential stability, employment, and substance abuse, as well as adding other dependent variables such as completing treatment, technical violations, and new sex crime. The independent variables (denoted with an X) are believed to be causal properties of some behavior, and dependent variables (denoted with a Y) are the effects or outcomes trying to be explained.

***Causation and Correlation*:** the social sciences seek to gather information to identify causes of various phenomena. Unfortunately, however, causation is difficult to prove in the social world. Rather, what is typically ascertainable is proving correlation or the co-occurrence of characteristics and outcomes. For example, cigarette smoking is known to relate to lung cancer, but every person that smokes does not contract lung cancer and many that do not smoke do contract lung cancer. However, smoking and lung cancer do seem to correlate. To claim causative effects, certain conditions must be met: (1) time ordering, (2) observed correlation between the independent and dependent variables, and (3) no third variable explanation. The first principle is straightforward when suggesting some characteristics (or independent variable) brings about (or causes) a specific behavior (effect or dependent variable) regarding the time ordering of the variables. The independent variable must occur first. To suggest that substance abuse and unemployment foster recidivism, for instance, is to say that substance abuse and unemployment are conditions that happen before the recidivism. The second principle is that real world observations must support the co-occurrence of these conditions with criminal behavior. And, lastly, that some *unobserved* variable is not the real cause of the behavior—say, hypothetically, that it is not substance abuse or unemployment as much as social disorganization that explains criminal behavior (known as a confounding variable) (see Babbie, 1998, p. 73-77). Researchers may refer to this unobserved third variable as a confounding variable.

***Sample Design*:** it is difficult for researchers to investigate every offender in an agency, so smaller groups of offenders are used instead. This is known as sampling, which allows evaluators to use a subset of all offenders to generalize their findings to a larger group of offenders. Consider an evaluation in which an agency is interested to know the effects of electronic monitoring over the past ten years, in which 50,000 offenders were given such a condition. It may not be practical to analyze all 50,000 offenders, but what may be more feasible is to identify (randomly, if possible) smaller sets of offenders from each year. There are ways that researchers can do checks to ensure that the samples are representative of the larger group from which they are drawn. Samples should match or "look like," so to speak, the larger population they are to represent on such characteristics as race, education, and income.

***Classical Experimental Design*:** uses two similar groups to test a specific theory or hypothesis such as the effects of an electronic tool on supervisee performance. The groups are referred to as an experimental (or treatment) group and a control group. One of these groups—the experimental group—receives some sort of intervention that we want to know more about, and the other group does not receive the intervention—the control group—and these groups are selected *randomly*. It is believed that delivering the intervention (i.e., an electronic supervision tool) randomly will reduce chances of selecting unequal groups. To continue with our sex offender-GPS example, suppose that we wanted to conduct a true classical experiment. One approach would require us to identify a pool of sex offenders (let's use 300 for this example) who are similar on risk scores, substance abuse, and employment status (three independent variables known as control variables). We could list their names on a sheet of paper (or in a computer file) and assign each of them numbers 1 through 300. Next, we would place all the even numbered names into an experimental group in which they are monitored with GPS tracking and all odd numbered names into the control group in which they are not monitored with GPS tracking. The rest of their supervision conditions would be identical, which (theoretically anyway) would allow us to make some inferences about the effect of GPS tracking (i.e., the independent variable also known as the treatment variable) has on specific behaviors (i.e., the dependent variable) of sex offenders supervised in the community.

***Quasi-experimental Design*:** is an alternative to the classical experimental design. These research designs do not require randomization to place individuals (referred to as cases) into groups, but rather evaluators have devised several innovative ways to develop *comparable* groups. It is important to understand that the classical experiment is believed to rule out many biases and differences between the individuals receiving the treatment or intervention (GPS tracking in our example) and those not receiving the intervention. Obviously, it is not always possible to randomly place high-risk sex offenders into various supervision strategies, for instance. For this reason, two main types of quasi-experimental designs are used: non-equivalent groups design and time-series designs. When randomization is not possible, researchers still need to make sure that the groups are as similar as possible and these sorts of groups are referred to as treatment and comparison groups, not control groups (see Maxfield and Babbie, 1998). Statistical analyses can be used to create groups that are similar to one another, even though interventions are not randomly assigned to individuals. Classical experimental designs are difficult, and potentially legally and ethically questionable, in justice system settings. Well-constructed quasi-experimental designs offer powerful insights into the effects of practices and programs (see Campbell and Stanley, 1963).

***Quantitative and Qualitative*:** the social sciences seem to get caught up in many debates regarding the best type of data or information, which is broadly identified as quantitative and qualitative. It should be stated up front that one of these approaches is not superior to the other. Both methods have merit and evaluators should make such determinations based upon the research goals and questions. To put it simply, quantitative approaches convert social and individual phenomena into numbers, and these numbers can be analyzed with many statistical approaches, and more easily generalized to a larger population. Qualitative approaches, typically, are more concerned with uncovering specific idiosyncratic details of an environment, setting, or context. These approaches often rely on field research in which evaluators actually come to your agency and speak with officers, offenders, and others to get a more complete

understanding of how things work in the agency before making any inferences. Field research can be a powerful approach to uncovering many contextual issues that should be included in an evaluation. Payne and Gainey (2000; Gainey and Payne, 2000), for example, provide a powerful investigation of how offenders experience being electronically monitored in one state. The point of their research is not so much to generalize to all offenders across the country, but rather to offer specific insights about offender experiences in one locality that can be used to inform the community corrections field. The purpose and goals of the evaluation should lead research design issues.

There is increasing pressures for administrators to prove that their agency's practices are the most cost-efficient method for achieving public safety.

PROCESS AND IMPACT EVALUATIONS: WAYS TO ASSESS QUALITY AND MERIT

Assessing the quality, merit, and value of community corrections programs and practices is an essential accountability and efficiency tool for administrators. Shouldn't administrators (and line-staff) be concerned with the effects of certain practices on supervisees? Why bother purchasing, implementing, and maintaining an electronic supervision tool if you aren't interested in improving results or even knowing what the results are? There is increasing pressures for administrators to prove that their agency's practices are the most cost-efficient method for achieving public safety. Utilizing rigorous evaluative methods to understand the quality of an electronic supervision tool should recognize the difference between two prominent approaches for making inferences about the tool's merit or worthiness. These approaches are: (1) process evaluation and (2) impact evaluation. The first approach is used to provide information regarding *how* results were achieved, whereas the latter is interested in knowing *what* the practice or program accomplished.

Community corrections agencies need to realize the potential benefits related to well-executed evaluations. Incorporating an information system that can collect on an ongoing basis needed information to assess the merit and worth of practices should improve the agency's ability to more effectively utilize agency resources. The push toward evidence-based practices has stimulated much interest in impact evaluations. These evaluations are intended to assess the actual results of a certain practice. What did the program or practice accomplish? Did it meet its intended stated goals and objectives? What was the recidivism rate? How many new sex crimes were committed by parolees involved in GPS tracking?

Process evaluations, on the other hand, are intended to provide specific information about how close the program or practice functions relative to the stated logic model. A logic model or program theory is a detailed statement (often including diagrams) describing how the program or practice will achieve the desired goals and objectives. A process evaluation is used to determine how close the program or practice matches the stated program theory. The two approaches described here are more fully discussed by Rossi, Freeman, and Lipsey (1998).

To truly assess the merit and worth of a program or practice requires utilizing both evaluation approaches. Evaluation research benefits more than the agency in which it is carried out, as evaluations can inform the community corrections field at large. For this reason, providing only impact evaluations is similar to only reading the last chapter of a book or a comedian that only delivers the punch line without the set up. The process and implementation phase is essential for policy transfer and informing the field in general, and can let you know why certain outcomes were achieved. The inputs (process) and the outputs (impact) are necessary to further community corrections practice, and to find out not only what works with electronic supervision, but how it should be used. The use of electronic supervision tools has taken place in a somewhat decentralized nature with one agency starting to monitor curfews with radio frequency devices or others installing ignition-interlocking systems, but there are few detailed process evaluations explaining how these programs were implemented and maintained. The next section briefly discusses these two types of evaluations.

Process Evaluation

Researchers must gain a thorough understanding of the practices under consideration prior to conducting an impact evaluation. A process evaluation provides information on implementation and knowledge of the interventions to which outcome findings may be attributed (Muraskin, 1993). This helps the research team assess the impact more accurately and identify and interpret research variables. Process evaluation is also essential for policymakers and administrators interested in replicating the program. It allows potential policy developers to compare the characteristics and context (e.g., political organization, social and cultural factors, financial stability, legal issues) to their own environments.

A process evaluation will collect and analyze data on contexts, resources, and organizational culture to uncover the process by which a particular practice is carried out. This contextual analysis will examine factors external to the practice that affect its operation (e.g., organizational support and commitment). Gaining this more in-depth perspective on how certain practices were implemented and function will improve your ability of explain why and how certain outcomes were achieved. It is important to fully document environmental characteristics to allow other jurisdictions to consider demographic characteristics that might influence implementing a specific electronic supervision tool. A particular agency may achieve strong recidivism outcomes with a particular electronic supervision tool, while others do not. It could be that the first agency has a charismatic person(s) working with individuals. A process evaluation is a measurement of the participants and activities of a program or practice. It consists of compiling and documenting the "who, what, when, where" activities of the program, including to know how a particular practice works in a jurisdiction. Some items to include are below:

- Identification information on each offender such as name, date of birth, sex, race, and address.
- The presenting offense and legal history of each offender. It is helpful to code the offenses using the Uniform Crime Reporting (UCR) codes so that data can be compared across sites.
- Number of offenders supervised.
- Length of time each offender was supervised electronically.
- Number of violations.
- Responses to violations.
- Case management activities, (e.g., number of alcohol/drug tests conducted, number and type of referrals to resources, financial payment records).
- When/how supervision was terminated.

For privately run electronic supervision programs, the involvement of the public sector (pretrial release, probation, parole, corrections personnel) and the private sector (program providers) will require an evaluation of the support provided by both sectors and their ability to work cohesively together.

Impact Evaluation

An outcome evaluation studies the direct actions of the program on the participants and seeks to determine the effects of the program. The outcome evaluation looks at the "how and why" of program activities and can also assess intended results and uncover any unintended results of the program implementation. To make this qualitative assessment of an electronic supervision program, Cohn (2000) suggests including subjective questions such as the following in measuring program results:

- Was the practice "true" with regard to the inclusion in the program of only the targeted, at-risk offender population (i.e., did the program accept offenders who did not qualify according to eligibility criteria)?
- Was the response time adequate when there was a report of a violation?
- To what extent were graduated sanctions in place and used?
- Was the level or kind of supervision related to any risk/needs assessment or classification schema?
- Was the monitoring center responsive?
- How well did the equipment work?
- To what extent did coverage by staff address demand?

Additionally, gauging stakeholder satisfaction with the program might be somewhat difficult to quantify, but it can provide constructive information for an outcome evaluation. If stakeholders are fully informed of the electronic supervision program's purpose and goals and are offered a vehicle to provide meaningful feedback, they can be a valuable source of information about the program's goal attainment.

Ultimately, outcome evaluation data can be used not only to determine the results of a particular program but also to provide a broader view of the effect of the program, sometimes referred to as an impact evaluation. Cohn et al. (1996) cited Armstrong, Reiner, and Phillips (1987) in suggesting the following questions be answered to ascertain the longer term value and impact of electronic supervision:

- Is electronic supervision a viable alternative to address the overcrowding of correctional institutions?
- Does electronic supervision offer a significant enhancement to community supervision?
- Is there a net-widening effect as electronic supervision is implemented?
- What is the relationship of electronic supervision to recidivism?
- What is the overall reliability of programs and equipment?
- What is the appropriate duration for an offender to be on electronic supervision?
- What is the cost effectiveness of electronic supervision as an alternative?
- What are the legal concerns and constraints of an electronic supervision program?

Connelly (personal communication, September 7, 2001) suggests two additional questions that should be included in an impact evaluation:

- Was compliance with probation/program conditions enhanced with electronic supervision?
- Did offenders respond positively to the structure and accountability, and do they feel it helped them maintain structure in their everyday life after being released?

As additional data become available, statistically significant characteristics that are predictive of an offender's performance on electronic supervision can be discerned, and electronic supervision programs can be more effectively designed and implemented to achieve the greatest usefulness.

Evaluation Measures Related to Program Goals

As previously stated, for evaluations to be worthwhile, the purpose for the electronic supervision tool must be clearly articulated and understood, the goals and objectives must be measurable, appropriate data must be kept, and the MIS must have the capability of maintaining and producing the required data for analysis. The relationship between the outcome measures with the intended goals determines the data elements that need to be available for analysis. Program goals for electronic supervision include the following:

- Reduction in incarceration costs/bed avoidance.
- Offender accountability.
- Avoiding new offenses.
- Enhancement of community supervision.
- Public safety.
- Behavior change/early notification of problem behaviors.
- Feedback to stakeholders.

Table 10a. Data Elements For Electronic Supervision Goals

Electronic Supervision Program Goal	Data Elements
Reduction in incarceration costs/bed avoidance	1. Current population vs. capacity. 2. Electronic supervision program cost. 3. Daily incarceration cost. 4. Welfare savings. 5. Foster care savings. 6. Payroll taxes paid by offenders. 7. Monthly income or program. 8. Medical cost savings. 9. Court appearance costs; failure to appear costs; arrest costs. 10. Offender fees.
Offender accountability	1. Days worked or in school. 2. Days in treatment. 3. Restitution paid to victim(s). 4. Taxes paid. 5. Number of violations and types (e.g., alcohol, boundaries). 6. Tampers. 7. Absconders.
Avoiding new offenses	1. Re-arrests for various offenses. 2. Technical violations. 3. Absconders.
Enhancement of community supervision	1. Demographics. 2. Re-arrest information. 3. Technical violations. 4. Duration of electronic supervision. 5. Length of time before new crime is committed and level of that crime. 6. Duration of treatment programs. 7. Officer contacts.
Public safety, behavior change/early notification of problem behaviors, and feedback to stakeholders	1. Verified electronic supervision violations (number of times offender left early or returned late). 2. Number of failed tests (polygraph, alcohol, drugs). 3. Number of treatment absences. 4. Number of missed reporting appointments. 5. Commission of new offenses and level of the offenses. 6. Number of unauthorized area violations (hot zones). 7. Compliance with program requirements. 8. Successful completion of termination.

Besides having data available to determine progress toward reaching the stated purpose of the electronic supervision, data should be available to determine the impact of the program. Data elements to consider include rates of incarceration before and after implementation of electronic supervision, offender accountability (how are they held accountable without electronic monitoring and how has electronic supervision changed accountability levels), changes in recidivism rates; stakeholders' perceptions of the success of community supervision; and alterations in the timeliness of responses to violations.

Use of Results

Once evaluation results are obtained, they must be put to good use with the ultimate goal to effect service improvement. Let's suppose that the Acme Probation and Parole Agency is interested to know the effect (or impact) that a newly implemented ignition interlock system is having on the treatment attendance of a group of convicted drunk-driver offenders. It is theorized that having an ignition interlock system installed on someone's vehicle would have a deterrent effect on certain offenders' alcohol consumption throughout the day. This deterrence operates by forcing the offender to consider, beforehand, the effect of having the interlock mechanism on his or her vehicle, and for this reason he or she abstains from drinking, at least during the daytime hours. By avoiding alcohol throughout the day, it is theorized that the offender is more likely to go to treatment (notice that even our hypotheticals are probabilistic, not deterministic).

The chief officer at the Acme Probation and Parole Agency—which the officers refer to as APPA—decides to contact a local university to see if there is someone who can assist with an evaluation. Over time the agency develops a relationship with evaluators from the university, and these two groups are able to negotiate a contract to establish a formal partnership and complete an evaluation of the impact of ignition interlock systems on offender treatment attendance. The evaluation process, as they tend to, goes wonderfully; there are no problems with sample construction, officer buy-in, or offender participation. To anyone who has as gone through a similar process, you will detect the sarcasm in this scenario because, in reality, the evaluation process typically ends up being much different than what was intended. Unforeseen obstacles emerge, administrators have trouble convincing line-staff that the evaluation is worthwhile, or evaluators miscode data or make other mistakes.

One day APPA's chief officer receives an email from the evaluators that includes an attached copy of the evaluation. This chief is excited, not nervous, because she is prepared for the results by having frequent interaction with the evaluators and the evaluation process. APPA's chief has stipulated that the results would be initially limited to internal use only, and should serve to assess program quality and make decisions about operational changes. Specifically, evaluation results assist in:

- Understanding the strengths and weaknesses of current practices.
- Assessing the efficiency of operations.
- Documenting progress toward achieving stated goals.

- Making financial decisions about program service delivery.
- Selecting areas for improvement.
- Identifying and addressing unintended program results.

Now, let's suppose that our chief opens the report to find that the ignition interlock system is having no effect on offender treatment attendance. These results obviously do not meet expectations, thus a revision of the goals may be appropriate. Designing and implementing new strategies based on information obtained from the evaluation may result in achieving the intended outcome, or revision of the expected outcome may be warranted, particularly if the evaluation discloses insufficient resources, objectives that are difficult (or impossible) to measure, or there is a lack of data to conduct evaluation successfully. It could also be that APPA was misguided in their theoretical premise, and ignition interlock systems should not be used to improve treatment attendance by certain drunk-driver offenders. It is possible, however, that ignition interlocks reduce the incidence of additional drunk-driving offenses during the monitoring period. This chief would have served better the agency by more carefully selecting electronic supervision tools for their intended purposes. This is similar to a carpenter that tries to build houses only with a hammer, and ignores the saw, nails, chalk, squares, and other tools in the shed. The issue is not so much does this or that tool "work", but rather what is this tool supposed to accomplish and with whom is it supposed to accomplish that goal.

The issue is not so much does this or that tool "work", but rather what is this tool supposed to accomplish and with whom is it supposed to accomplish that goal.

Once results have been fully reviewed internally, agencies need to decide whether the results will be shared externally. Funding providers, stakeholders, and the community have a legitimate interest in how public money is spent, and they have an interest in knowing that community corrections practices are accomplishing their state purposes. Sharing evaluation results with external users is not limited to operational costs and savings. External customers are likely to be interested in other results of the program offered and the evaluation should be designed to provide that information as well. Effective presentation of the results can determine the utility of the evaluation for both internal and external users. It is important to know who the audience is, what information they need, and how they will use it (Geary, 2001). Geary suggests using spreadsheets, tables, charts, graphs, and narration to present information. The goal is to place the information in a context that is understandable to the user.

Barriers to Effective Evaluation of Electronic Supervision Tools

Electronic supervision tools have been used in a community corrections capacity for almost three decades. In this time, however, there has been little systematic review of these practices. Instead, the evaluative literature of electronic supervision tools is only now beginning to emerge. This is not to say that studies do not exist (for examples, see Bonta, Wallace-Capretta, and Rooney, 2000; Finn and Muirhead-Steves, 2002; Padgett, et al., 2006). The bulk of studies researching electronic supervision tools focus on electronic monitoring with radio frequency devices and GPS tracking. As of this writing, scientific research on ignition interlocks, secure remote alcohol monitoring, call-in services, and other tools does not exist. We believe that as more practitioner-academic partnerships are being established to carry out rigorous evaluations and as these technologies are becoming more prominent, there will be more studies detailing the process and impacts of an assortment of electronic supervision tools. Several factors that may inhibit evaluation of electronic supervision tools are discussed below.

1. *Some service providers do not routinely conduct evaluation.* From a study he conducted of electronic supervision programs for juveniles, Cohn (1998a) reported that not one of the approximately 150 respondents reported any attempts to measure or evaluate their programs. Cohn said the lack of evaluation in the juvenile programs could be extrapolated to adult programs as well, since many of the respondents reported they also served adult populations. The lack of evaluation protocol is not limited to electronic supervision programs but is often reflected by agencies' lack of evaluation for any of their activities. However, the absence of evaluation precludes the possibility of determining the value of electronic supervision.
2. *The program purpose is unclear.* Without a clear sense of what an electronic supervision program is supposed to accomplish, evaluation to assess achievement of the purpose is futile. All too often, a program has been put into place because it is in vogue to have electronic supervision, rather than because the program furthers the agency's mission and goals by addressing a specific articulated purpose. Either the absence of a program purpose, or a purpose that is indistinctly defined negates valid evaluation.
3. *The data to conduct evaluation is not available.* Engaging in planning and designating resources for collecting, compiling, and analyzing data for evaluation is a frequently overlooked area of implementing an electronic supervision tool. Consequently, while data to conduct some minimal process evaluation may be available, those who wish to assess the merit and worth of a particular initiative may have difficulty gleaning the information.
4. *The population that is supervised is not the population that was targeted.* An unintended consequence of implementing electronic supervision for a particular segment of the offender population is that other offenders not included in the targeted population are pulled in for electronic supervision. For example: one agency may want to include GPS tracking to divert pretrial offenders from incarceration pending resolution of the court process to reduce incarceration costs and crowding. However, in this hypothetical, there is one judge that begins sentencing certain offenders to GPS tracking, but these are offenders who prior to the implementation of GPS tracking would have been released on their own recognizance. This judge commits a common human error by thinking that if a little of something is good, then a lot of it must be great. Specific considerations would need to be made during the analysis phase to ensure that the results are focused on the pre-trial defendants.

5. *The single attribute of cost-effectiveness is often the criterion for successful practices.* Electronic supervision is often advocated and touted as a cost-effective mechanism for supervising high-risk offenders in the community. This singularity of purpose (reduced expenditure) without acknowledgment of other correctional system goals such as increasing public safety, effecting offender behavior change, and reducing recidivism restricts the definition of a "success" to an accounting process and clouds the capacity for evaluating electronic supervision as a corrections system tool to achieve broader goals. Indeed, a variety of variables should be considered when conducting program evaluations.

6. *Funding and time constraint issues* can interfere with conducting a well-run evaluation. Similar to most organizational issues, resources are a major obstacle. Time and money are central aspects of any organization; without the appropriate amount of funding set aside for evaluations and time planning, your agency will not be able to conduct an evaluation

Recommendations for Incorporating Evaluations: Answering the "How" and "What" of Electronic Supervision Tools

Now that we have pointed out some of the common barriers that emerge when conducting an evaluation, it is important to offer some recommendations for incorporating evaluations into the use of electronic supervision tools. Here are eight tactics to use to prepare for evaluations: (1) build evaluation into the implementation phase of any tool, (2) provide a clearly defined mission statement (for internal and external use), (3) establish relationships with academics and other researchers, (4) seek funding from local, state, and federal agencies, (5) incorporate data collection instruments into administration, (6) plan to disseminate the results through publications and conferences so others can benefit from the evaluation, (7) develop partnerships with local colleges and universities so professors are more willing to give occasional lectures to staff about program evaluation, and (8) use the results to improve the use of the electronic supervision tool.

By accomplishing these tasks, or at least some of them, your agency will improve its ability to provide needed information to stakeholders to demonstrate the efficacy of an electronic supervision tool. Remember that evaluations are used to assess the merit or worth of something, and the two approaches discussed in this chapter are process and impact evaluations. These evaluations have different purposes, require different data, and come with different weaknesses and strengths. Process evaluations are used to describe *how* an electronic supervision tool is used. These sorts of evaluations can tell you how resources are being used from the implementation through the continued maintenance of an electronic supervision tool. Also, you may benefit from existing process evaluations (see, Brown, et al., 2007; Tennessee Probation and Parole Department, 2007) that can give you some "lessons learned" from others in the field. Community corrections practitioners should not be looking to create the wheel as much as to operate within an entire field of practitioners and researchers across the country (or even the world). For these reasons, we must look to our fellow community corrections agencies to see what they are doing. This does not mean that you always will like what you see, so you do not have to incorporate certain tools or practices, but you also may find that there are many agencies incorporating several innovative practices that you would not have heard of otherwise.

Once you have learned the how or process by which an electronic supervision tool operates, you will want to know what the tool can accomplish when implemented a certain way. During the 1980s, a certain fast food chain adopted the slogan "where's the beef?" Some of you may remember this commercial, and can recall that it was delivered by an extremely small, elderly woman. The point to the commercial was to say that other fast food chains provided all bun and very little hamburger. This is the point of impact or outcome evaluations—they look to sift through data to uncover the mechanisms by which various tools function in the real world. That is, the process evaluation tells you how the program is operated—the day-to-day tasks—and the impact evaluation peels back the layers to see what is inside—the beef, so to speak. This is not to suggest that one is more valuable than the other approach. These approaches are two pieces to a single strategy of moving the community corrections field into becoming a science-driven field. In such a field, objectivity is the guiding light that will move the field to a more effective state.

EFFECIENCY ASSESSMENTS: EVALUATING COSTS AND BENEFITS

Now that we have discussed many of the steps necessary for implementing and operating various electronic supervision tools into your agency's overall supervision strategy, it is time to consider funding issues. How much does the equipment cost? When will you need to buy new equipment? How much will repairs and maintenance cost? What are some of the benefits possible with an electronic supervision tool? These and many more questions can be answered with what Rossi, Freeman, and Lipsey (1998, p. 365) refer to as an efficiency assessment. Efficiency assessments include both cost-benefit and cost-effectiveness analyses to "provide a frame of reference for relating costs to program results." Administrators are constantly struggling to provide proof that certain programs or practices meet strict cost and performance standards. Simply put, all of us are looking to get the "biggest bang for our buck," but we have to be careful not to jump onto the electronic supervision bandwagon without carefully considering the implementation and ongoing costs and benefits possible. It can be an uphill battle for administrators grappling with finite resources and growing workloads to carry out an efficiency assessment.

This chapter is not intended to enable you to conduct your own efficiency assessment. Cost-benefit analyses are highly technical procedures for which agencies lacking a research division will definitely want to seek an external researcher. This is not to say that you should not have some basic knowledge about efficiency assessments—because you should be able to communicate with policymakers, the public, and researchers about cost and performance issues. You will also want to have a basic understanding of efficiency assessments to be able to provide thoughtful oversight of an external researcher performing one of these assessments. For those interested in a more thorough introduction to efficiency assessments, please refer to Rossi, et al. (1998, chapter 11). Efficiency assessments utilize a systematic approach to collecting and analyzing information related to the costs and benefits of agency practices.

An efficiency assessment could reveal that a certain electronic supervision tool provides a certain level of deterrence that encourages a supervisee to attend treatment and remain employed, and the treatment and employment have an effect of raising that person's self-esteem, which, in turn, reduces his or her level of angst and dissatisfaction. This attitudinal

change, produced through a chain of events related to the deterrence of an electronic supervision tool, fosters a more introspective individual. The introspection leads to the development of empathy and a reduction in related criminal behavior. How do you identify all of the benefits related to the electronic supervision tool? Once the benefits are identified, how do you convert them into dollar amounts? These are some of the most difficult questions for conducting a cost-benefit or cost-effectiveness analysis.

Administrators are routinely questioned about the costs and benefits of agency practices, and efficiency assessments can be strong evidence that a practice accomplishes its goals within certain financial boundaries. Cost-benefit analyses convert outcomes into monetary terms, and cost-effectiveness analyses report outcomes in substantive terms (Rossi, et al., 1998, p. 366). Cost-benefit analyses are often criticized due to the difficulty of acquiring the needed data to sufficiently assess efficiency. Much of this controversy stems from identifying all related costs and converting benefits into monetary terms. How do you quantify the benefit of reducing jail populations? Even if a population decrease is found after incorporating an electronic supervision tool, how do you know exactly how much of that decrease was due to the tool? This is not to say that efficiency assessments are useless, but rather to point to their difficulty. We briefly describe some of the key areas of concern when considering a cost-benefit analysis.

COST-BENEFIT CONSIDERATIONS

Determining the relative costs and benefits of a program that incorporates an electronic supervision tool is a complex undertaking, but a cost-benefit analysis will assist decision makers in determining whether or not such an endeavor is financially practical. All potential costs and benefits should be considered before a final decision is made. Although funds may be limited, in some cases, it may be considerably more costly not to implement electronic supervision technologies.

Four cost and benefit issues should be explored (Crowe and Schaefer, 1992):

- *Tangible costs* are based on information that feasibly can be gathered and represented in dollar amounts.
- *Intangible costs* are expenses incurred in the event of some predictable, yet immeasurable occurrence.
- *Tangible benefits* are actual dollars an agency can save by implementing electronic supervision processes.
- *Intangible benefits* are predictable, yet immeasurable savings that may occur as a result of electronic supervision.

These terms show you how difficult it can be to empirically measure all the costs and benefits related to using an electronic supervision tool. Cost-benefit analyses rely on a bit of imagination and creative thinking on the part of administrators and researchers, especially when identifying and measuring intangible costs and benefits. For this reason, administrators should take an active role in the design of the cost-benefit analysis to ensure that the researcher is developing *valid* measures of the costs and benefits. Researchers use the term valid to indicate that the way they are measuring something captures the true intent of what was meant to be measured. Imagine that you are interested in knowing the cost-benefits of a kiosk reporting system, and you contract with a professor from a local college or university. The researcher may be an expert in social science methods, but he or she may lack an intricate knowledge of community

corrections practices, so you will want to ensure that accurate measures of costs and benefits are used. Suppose the researcher forgets to look at workload issues related to kiosk reporting, would you consider this a true or valid measure of the cost and benefits of this electronic supervision tool?

Tangible Costs of Electronic Supervision

To calculate the tangible costs of electronic supervision, a variety of types of information are needed such as the following:

- Number of individuals eligible for electronic supervision based on decisions made about the place and purpose of electronic supervision.
- Estimated frequency and length of use of electronic supervision technology with these individuals.
- Cost of equipment, supplies, and monitoring services including the possible provision of telephones for indigent clients.
- If the criminal or juvenile justice agency implementing the program is also monitoring the electronic devices, there will be added costs for computers, telephone lines, office space, and the like.
- Equipment maintenance costs.
- Shipping costs.
- Secured storage area for unused equipment and supplies.
- Additional communication equipment for staff (e.g., pagers, cellular phones, fax machine).
- Number and salary of staff required to implement the technologies adequately, including additional costs for overtime pay when needed.
- Salaries and other costs for managers, administrators, accounting, and support staff with responsibility for the program.
- Required office space and its maintenance for additional employees needed.
- Transportation costs for field work required for effective electronic supervision.
- Cost of training needed by staff who will operate or use the electronic supervision tool, including costs for staff turnover due to reassignments, retirement, and other factors.
- Costs of incentives and sanctions used as consequences for compliance or noncompliance.
- Costs of other services needed by individuals being supervised electronically.

Figure 10a provides a fictitious example of the computation of these costs for a probation agency that plans to use home confinement with electronic technologies as a sanction for individuals who test positive for alcohol or illegal drugs. The agency has 200 offenders for whom the court has ordered drug testing. Of these, about 30 percent, on average, have tested positive during the past year. Staff have estimated that one home detention sanction would likely be sufficient for approximately half of these offenders to curtail their illegal alcohol and drug use. They believe another fourth of the population would respond appropriately to a second home detention, and for the final fourth of the group, a third experience would be necessary. They propose that the first home detention last for one month, the second for two months, and the third for three months.

When electronic supervision strategies are used to enhance supervision of offenders who would be released in the community anyway, they may result in increased costs for supervising offenders in the community. Agencies have to assess whether the potential improvement in supervision is worth the additional cost of electronic technologies.

Figure 10a Tangible Costs For Electronic Supervision

This fictitious example of cost estimates for an electronically supervised home confinement program using continuously signaling radio frequency equipment is provided for illustrative purposes only. Costs will vary according to the number of offenders involved and the type of equipment used as well as the length of time offenders are supervised. Agencies will differ significantly in the types and costs of services that may be provided in various programs. Further, some costs, such as office space, are not included in this example that may be budgeted in an agency setting. The procurement process will provide more details about costs and requirements for electronic supervision equipment and services.

Number of offenders potentially eligible for electronically supervised home confinement	60
Frequency and length of use of electronic supervision	
60 offenders x 30 days = 1,800 days of supervision	
30 offenders x 60 days = 1,800 days of supervision	
15 offenders x 90 days = 1,350 days of supervision	
4,950 days of supervision	
Average daily quantity (4,950 days of supervision/365 days)	14
Equipment, supplies, and monitoring services	
Lease of 25 RF units for year @ $2.50 per day (extra units allow for spares and uneven intakes)	$22,813
Purchase of consumable supplies (e.g., straps, batteries) @ $5/offender use	525
Contracted monitoring services @ $5.00 per day for 4,950 days of supervision	24,750
Telephones for indigent offenders	900
Shipping and maintenance of equipment	750
Vehicle use for supervision (13,000 miles x $.35/miles)	4,550
Secured Storage Area (2 locked storage cabinets @ $200 each)	400
	$54,688
Office furniture, supplies, and communication equipment for staff	
Fax machine	$300
Pager & Service (purchase of pagers and monthly service)	700
Cell phone (purchase of phones and monthly service)	1,100
Computer, printer, yearly Internet service	2,360
Office furniture	750
Office supplies	300
	$5,510
Staff	
1 FTE staff member @ $35,000 + benefits	$43,750
Administrative & support staff @ 20% FTE + benefits	12,500
Staff Training (Attendance at two conferences)	1,000
	57,250
Incentives and Sanctions	
45 offenders x $25 (e.g., tickets to ballgame, movie passes)	$1,125
15 offenders x $200 (e.g., weekends in jail)	3,300
	$4,425
Other Services	
Substance Abuse Treatment ($1,000 for outpatient treatment x 60 offenders)	$60,000
Employment Training ($500 x 20 offenders)	10,000
	$70,000
Total Estimated Costs for Electronically Supervised Home Detention	
Without Treatment and Employment Training	$121,873
With Treatment and Employment Training	$191,873

Intangible Costs

Expenses that might occur under certain conditions, but cannot be predicted accurately, are considered intangible. An example of an intangible cost for an electronic supervision tool would be a lawsuit arising during its implementation. For example, staff might be alerted that an offender being electronically supervised has violated his or her curfew or has gone to areas from which he or she is prohibited (depending on the type of electronic supervision employed). If the staff fails to respond to those alerts in an appropriate and timely way, and the offender commits another offense resulting in physical harm or monetary loss to the victim, the staff might be subject to a lawsuit.

Chapter 5 described several legal issues that should be considered when developing policies and procedures for the use of electronic supervision. Once legal issues have been researched and policies are developed in accordance with them, it is vital that staff be trained and supervised in performing their duties in accordance with the appropriate policies and procedures. Implementation of thoroughly researched, comprehensive, and clearly written policies and procedures governing community corrections practices minimizes the risk of intangible costs to an agency. At the same time, having policies, but failing to act in accordance with them, leaves the staff vulnerable to lawsuits.

Some start-up costs are intangible, in that they cannot be predicted accurately. These include the staff time involved in educating and "marketing" the concept of electronic supervision to various stakeholders and the investment in the planning process for including electronic supervision tools within the agency. These activities often require a considerable initial investment of staff time that cannot be recouped. Yet, their existence should be acknowledged and anticipated.

Net widening is another immeasurable cost that may occur with the implementation of electronic supervision. As the technology becomes available, more uses for it are likely to be found, and offenders may be supervised with an electronic supervision tool even though they previously would have been supervised successfully without the technology, or received a lesser punishment (e.g., only a fine). This net-widening effect can increase, rather than minimize, correctional costs. Electronic supervision tools should only be incorporated to enhance existing supervision practices. These tools should not be incorporated because they are trendy. Agency needs should drive technology acquisition.

Another type of intangible cost is lost opportunity costs. When funds are used for electronic supervision, they may not be available for alternative community supervision tools or strategies. The potential benefits of various options should be weighed. Community corrections staff should carefully consider where funds for electronic supervision will come from and other programs or needs that may be sacrificed to implement a tool (Friel and Vaughn, 1986).

Still another predictable, but immeasurable, cost associated with some uses of electronic supervision results from increased rates of technical violations. Electronic technologies allow corrections personnel to gather much more information about offenders' activities than is possible using traditional supervision strategies. Chapter 8 on supervising offenders stresses the need to respond appropriately to both compliant and noncompliant behavior. A variety of graduated

sanctions can be employed, but technical violations sometimes lead to court hearings, reincarceration, or both, resulting in additional costs to the justice system that might not have been incurred without the knowledge of these infractions.

Tangible Benefits

Savings resulting from the implementation of an electronic supervision tool can be estimated by using information from agency budgets, budgets of other agencies, and case management records. Although precise dollar amounts are difficult to calculate, savings may occur through the use of electronic supervision practices. Whether you identify savings with a specific electronic supervision tool, and the amount and type of such savings, depends on the purpose of the tool, as well as its location within the criminal or juvenile justice system. Some examples of electronic supervision applications that may result in savings include the following:

- Pretrial release of defendants who otherwise would be detained at a higher cost.
- Early release of offenders from incarceration, reducing the total cost of their confinement.
- As an adjunct to treatment that ensures greater compliance with and completion of treatment, thus reducing costs for repeated treatment enrollments.
- As a supervision and sanctioning tool that reduces recidivism rates and the costs of future crime.

When electronic supervision technologies are used to divert or release individuals from incarceration, cost savings are likely to occur. Figure 10b contains information about the average costs of incarceration and the range of costs related to various types of electronic supervision. Depending on the type of electronic supervision used and the daily cost of incarceration, modest to significant daily savings can be realized by diverting offenders from prison or jail or releasing them before they serve their entire sentence. For example, more than 50 percent of jail and prison populations are comprised of nonviolent substance abusers. Placing many of these offenders in the community where they can receive treatment would save significant incarceration costs and likely stem recidivism rates.

The cost example shown in figure 10a is continued in figure 10c to illustrate the potential cost of savings. For this example, the costs of using incarceration versus electronically supervised home confinement as a sanction for offenders who test positive for drug use are compared.

Actual cost savings realized would depend on the cost of incarceration in a particular jurisdiction and the actual costs for the electronic supervision tool. This example uses continuous signaling technology, but some technologies will cost more, and others may cost less.

In most instances, electronic supervision is likely to result in substantial savings over incarceration. However, to determine the amount of savings all related costs must be factored into the analysis. Another saving that may be realized with electronic supervision of individuals is in new construction of custody facilities. Because of growing offender populations, aging facilities that must be replaced, or both, new construction has been necessary; however, if individuals can be diverted successfully from adult prisons and jails and juvenile detention and custody facilities, the amount of new construction can be reduced, saving millions of dollars (Friel and Vaughn, 1986).

Intangible Benefits

Predictable but immeasurable savings that may occur as a result of electronic supervision are intangible benefits. It is not possible to accurately predict the potential savings an agency can offer the justice system and society through effective electronic supervision. However, if realized, such savings may be significant and warrant consideration in the final cost-benefit analysis.

A possible intangible benefit from electronic supervision is a reduction in recidivism rates. Recidivism may be defined in several ways and, therefore, it produces statistics that vary according to what is measured. Definitions of recidivism may include any new arrest, new felony arrests only, any new conviction, new felony convictions only, a new prison commitment, and new technical violations as well as other meanings or some combination of meanings (Boone and Fulton, 1995). Electronic supervision accompanied by incentives and sanctions and appropriate treatment and other services needed by offenders may divert some offenders from committing additional crimes. Such an eventuality would save significant future justice system costs including law enforcement, legal representation, court costs, incarceration, and community supervision.

Savings in social costs are another potential benefit of electronic supervision aimed to reduce recidivism. If future thefts, assaults, substance abuse, and similar crimes can be averted, the costs to victims and the rest of society will be significantly diminished.

Furthermore, if offenders can remain in the community under electronic supervision rather than being incarcerated, they are more likely to be able to maintain jobs, support their families, pay restitution, and pay taxes. This benefits the offender, his or her family, and society in general. Costs such as foster care, public assistance, and other costs related to family dissolutions may be avoided if offenders remain in the community. Money saved in justice system and societal costs can be used in a variety of more productive ways, such as education, health care, housing, and family supports.

Figure 10b. Comparison Of Costs For Incarceration Versus Electronic Supervision

Incarceration Costs
1999 average costs per inmate per day ranged from $30.36 in Louisiana to $97.62 in Alaska (based on data from 47 States; Camp & Camp, 1999).

General Costs of Electronic Supervision*

Type of Equipment	Daily Cost Range
Continuously Signaling (RF)	$ 3.00—$ 4.50
Breath Alcohol Testing	$ 6.00—$ 7.50
Voice Verification	$ 2.00—$ 4.00**
Global Positioning	$ 15.00—$25.00
Intermittent Global Positioning using cell phone and Voice Verification to locate and identify the offender	$ 4.00—$ 6.00**

*These cost estimates were provided by Linda Connelly in material prepared for an Audio Conference on Electronic Monitoring presented October 13, 1999. The following statement accompanied the cost information: The...expenses are to give a general idea of costs of equipment. Costs will vary depending on type of equipment, quality of equipment, number of units, and level of service being required.
**These costs were provided by John Gallagher, a member of the Working Group that guided the development of this document.
NOTE: The above costs do not reflect additional expenses, such as supervision personnel and other amounts shown in Figure 10a. These additional charges must be factored in to make a valid comparison for a given jurisdiction.

Figure 10c. Potential Savings With Electronic Supervision

This fictitious example of cost saving estimates for an electronically supervised home confinement program using continuously signaling radio frequency equipment is provided for illustrative purposes only. Costs will vary according to the number of offenders involved and the type of equipment used as well as the length of time offenders are supervised. Agencies will differ significantly in the types and costs of services that may be provided offenders in various programs.

Number of incarcerated offenders potentially eligible for electronically supervised home confinement	60
Frequency and length of incarceration and/or use of electronic supervision	
60 offenders x 30 days = 1,800 days of incarceration/supervision	
30 offenders x 60 days = 1,800 days of incarceration/supervision	
15 offenders x 90 days = 1,350 days of incarceration/supervision	
4,950 days of supervision	
Average daily quantity (4,950 days of supervision/365 days)	14
Estimated cost of incarceration (4,950 days x $56.46 average daily inmate costs (Camp & Camp, 1999))	$279,477
Estimated cost of electronic supervision (refer to figure 10a for itemized costs)	
Equipment, supplies, and monitoring services	$45,593
Office furniture, supplies, and communication equipment for staff (fax machine, pager, cell phone)	5,510
Staff	57,250
Incentives and Sanctions	4,425
Other Services	70,000
Total Estimated Costs for Electronically Supervised Home Detention	
Without Treatment and Employment Training	$112,778
With Treatment and Employment Training	$182,778
Savings over incarceration costs	
Without Treatment and Employment Training	$166,699
With Treatment and Employment Training	112,778

Cost-Benefit Analysis: Three Accounting Perspectives

Cost-benefit analysis is an administrative tool that agencies should use carefully to identify practices worth keeping, those needing adjustment, and others that may need to be eliminated. The next chapter points out more direct issues related to process and impact evaluations, while this chapter focuses on the costs and benefits of electronic supervision practices. Efficiency assessments rely on what Rossi, et al. (1998) refer to as an accounting perspective, in which programs and practices are evaluated based upon the relationship between the costs (inputs) and benefits (outputs) associated with the program or practice. They identify three accounting perspectives used in different cost-benefit analyses: (1) individual targets, (2) sponsors, and (3) communal or societal.

These accounting perspectives emphasize the audience in which the cost-benefit analysis is intended. The individual-target perspective is intended to provide individual consumers or beneficiaries of a practice with knowledge of the relative costs and benefits associated with the practice. This perspective is useful for efficiency assessments of electronic supervision technologies when you are interested in knowing more about the per unit benefits—at the individual level—to costs ratio (the net benefit). Let us suppose that you have to appear before your state legislature to explain how the recently mandated use of GPS for high-risk sex offenders is performing. There are many ways to demonstrate the effects of using GPS tracking with this sex offender population; however, you know that the legislature is interested in the costs and the benefits of the GPS tracking. So, after speaking with staff and identifying a local professor to contract with to complete the cost-benefit analysis, you are prepared to develop valid measures of the inputs and outputs of the GPS policy. At any rate, you let the researcher know why you are conducting the cost-benefits analysis, and tell him or her that you would like to identify the individual level costs and benefits. This will allow you to tell the legislature that GPS tracking has a net benefit of x-amount of dollars per dollar spent on GPS tracking for each offender.

The second type of cost-benefit analysis takes the perspective of the sponsor or funding agency. Everyone has to report to someone else, and the community corrections field is no different. Administrators often must identify their use of funds and what certain benefits are achieved by a specific practice. Otherwise, the practice should be discontinued, so more economically efficient practices can be adopted. It could be that your agency has received a grant from the federal, state, or local government, or other private foundation, and these funding agencies typically have precise definitions of the level of the net benefits expected. This accounting perspective informs government oversight agencies of the benefits of an electronic supervision tool compared to other sanctions. This approach gives an oversight agency an idea of the funds needed to continue the practice and can serve as a useful when tool making decisions to eliminate certain practices.

The third accounting perspective identified by Rossi, et al. (1998) provides a communal or societal view. The societal perspective takes a broad view of the costs and benefits of various practices to understand the broader benefits to the society or community as a whole. This will incorporate many items considered in the individual and sponsor focused cost-benefit analyses, but also will include other items such as "opportunity costs incurred by an individual as a consequence of

participating in the project" (Rossi, et al., 1998, p. 379). These types of cost-benefit analyses are the most difficult because you have to consider "secondary or indirect project effects" such as the effects onto other groups "not directly involved with the intervention" (Rossi, et al., 1998, p. 375). Consider the broader effects of our high-risk sex offender GPS tracking assessment mentioned in the individual level cost-benefit perspective, as many of the items used to measure costs and benefits at the individual level may be included in the societal perspective. Other items would be included as well to assess the broader net benefits brought about for the community as a whole. For instance, it could be that the GPS tracking of high-risk sex offenders brings about a sense of security and safety for the general public, something that is difficult to measure without conducting research on local and public opinion. Another communal benefit that might be difficult to measure for electronic supervision technologies is the cognitive restructuring of offenders that is brought about by the entire supervision strategy; however, isolating the direct effects of the GPS tool will require serious time and effort.

Not one of these approaches is superior to the others. Rather, the purpose (and available data) of each cost-benefit analysis should determine which accounting perspective is used. For agencies interested to know the individual costs and benefits at the supervisee level from an electronic supervision tool, it is necessary to consider an assortment of costs and potential benefits, some of which may be difficult to anticipate, such as increases in wages for an individual that remains fully employed on a consistent basis, or attitudinal and psychological benefits. Some agencies, on the other hand, may need to demonstrate to the funder or sponsoring agency that an electronic supervision tool provides certain benefits relative to the costs of such practices. Other agencies may be interested in demonstrating the greater social benefits stemming from an electronic tool. Although these three accounting perspectives are helpful to assess the efficiency of electronic supervision tools, administrators should concentrate on the first two approaches. This is not to say that the communal/societal perspective is not important or that it is impossible to conduct. Rather, this perspective may require more effort to complete than it is worth. Because most administrators need valid efficiency indicators to report to their local council or legislature, the individual and sponsor perspectives are most appropriate. Policy makers want to know the relative benefits of an electronic supervision tool at the supervisee level, as well as considering the benefits in relation to alternative programs.

Once you have decided on a particular accounting perspective to follow for the cost-benefit analysis, you will want to discuss the measurement of costs and benefits. Again, you should not attempt to carry out a cost-benefit analysis on your own unless you have a qualified research staff. With this said, however, you do not want to contract with an external researcher without providing direct and ongoing input into the efficiency assessment. This brings us to three of the central obstacles in conducting cost-benefit analyses: (1) identification of costs and benefits, (2) measuring the identified costs and benefits, and (3) translating all costs and benefits into monetary values.

It may seem, at first, that cost-benefit analyses would be easy, as if all that needs to be done is adding up all the costs (inputs) associated with a practice and adding up all the benefits (outputs) of the practice, subtracting these figures to

arrive at a net benefit (or net loss). Anyone who has ever been involved in a cost-benefit analysis knows that it is not that easy to complete the first phase, which makes latter phases impossible. Identifying all costs and benefits associated with an electronic supervision tool is extremely difficult.

It is paramount that administrators take an active role in the construction of the cost-benefit analysis, and they should include officers responsible for certain practices in collaborative meetings with researchers. Conducting collaborative meetings with community corrections staff and researchers performing the cost-benefit analysis can improve the quality of the assessment. There is often a communication gap between researchers and practitioners, and holding collaborative meetings should help to bridge this gap. Both researchers and practitioners are needed to identify and deliver effective community corrections practices. If you are seriously interested in conducting a thorough cost-benefit analysis, then reach out to local universities to see if there is a professor(s) with whom you would be pleased to work. You may be surprised at how willing academics are to be included into practical research projects. But, you may also find that the particular professor(s) you talk with at first are not pleasant, and you may need to keep searching for alternatives. Developing strong researcher-practitioner relationships can be a significant benefit to any administrator wanting (and needing) to demonstrate (with robust social science methods) that certain practices bring about certain results relative to their costs. Also, the next chapter talks about two other types of evaluations in which an external researcher may be needed. Administrators, therefore, should actively pursue interested researchers with whom to contract.

CONCLUSION

The scarcity and/or ambiguity of evaluation information from electronic supervision initiatives hampers efforts toward gauging their effectiveness; evaluation studies often conclude that further evaluation efforts are needed to satisfy remaining unanswered questions. Researchers are trained to continually test assumptions with empirical data, and they should recognize that results need to be scrutinized. For this reason, the research community emphasizes continual testing and analysis—the test-retest principle. What becomes apparent in reviewing evaluation studies, too, is that familiarity with the purpose and the targeted population is necessary to understand the evaluation results. A recitation of the number of offenders being supervised and the length of time on supervision in a given year is rarely helpful to understanding the success of a program.

Engaging in effective evaluation can tell us the degree to which certain strategies are successful and cost effective. With adequate evaluation information, the value of electronic supervision to the criminal justice system can be realistically assessed.

11 PUBLIC RELATIONS

A public relations plan that addresses the concerns and needs of the community stakeholders prior to implementing an electronic supervision tool can counteract negative public perceptions and negative stereotypical images of electronic supervision systems. Fairchild (1998) suggests that agencies conduct research and assess public perceptions using surveys and public opinion polls to identify problems and to target public relations and communication strategies to address those problems as they relate to specific social groups, other agencies, and the public.

IDENTIFY STAKEHOLDERS

The successful implementation of any community corrections initiative that utilizes electronic supervision tools demands the partnership, commitment, and involvement of both the internal and external community stakeholders. Correctional leaders should allow the public an opportunity to participate in problem solving, policy development, program implementation, and offender supervision (Shall & Neises, n.d.). Any public agency that purports to serve the community must become a part of that community; that agency cannot operate alone as a separate entity without the support of those who are the recipients of its services (Petersilia, 1998). Partnerships between the internal and external stakeholders develop when both entities recognize the need to listen to, understand, and work toward the goals, needs, and concerns of each other for the greatest benefit of all. Evans (1996) found that successful implementation of a correctional strategy within a community depends on the cooperation and partnership of other agencies, social institutions, and public acceptance and confidence when integrating the supervisee and the community. Ultimately, the community holds the solution to crime, and all the stakeholders, both internal and external, must be involved (Klein, 1995). For stakeholders to be involved, they must have a voice and take a piece of the action. Stakeholders are more apt to support what they help to create.

Administrators that include electronic supervision must assume the responsibility for educating, informing, and enlisting the support of stakeholders (Boone, 1996). Improving public relations among all the community actors demands increased communication, understanding, and debate among all the groups involved (Fairchild, 1998).

As with all community corrections initiatives, the effectiveness of supervision programs that include the use of electronic technologies depend on (Boone; 1996; Dillingham, 1994; Elrod and Brown, 1996; Evans, 1996; Flanagan, 1996; Immarigeon, 1995; Petersilia, 1996; Renzema, 1992; Sigler and Lamb, 1995):

- The agencies that manage them.
- The community and social service agencies that provide treatment, jobs, and other offender services.
- Educational agencies.
- Judges and elected officials.
- The media.
- Victims services.
- Public support.

Internal Stakeholders

The internal stakeholders are all those persons within an agency who will be managing, supervising, evaluating, and overseeing a program involving electronic supervision. These include program coordinators, agency management professionals, line officers, supervision teams and any and all agency personnel who will maintain a working relationship with the offenders and their communities as well as vendors and service providers for the electronic technologies used. The successful implementation of an electronic supervision system requires communication and cooperation among departments and agencies. According to Nidorf (1996), it is imperative that agencies communicate at all levels and functions of the department and agencies that supervise offenders who reside within the community.

External Stakeholders

The external stakeholders are all those persons outside the correctional agency who are affected by offenders' releases into their neighborhoods and communities. Included are the victims, families, peers, business managers and owners, media, community professionals, social service agencies, treatment facilities and services, judges, prosecuting attorneys, law enforcement, and any other public or private agency, political or social group, or person within a community or neighborhood in which an offender resides while completing court-ordered community supervision obligations.

Political Leaders as Stakeholders

Programs that include electronic supervision components also require the support of policymakers who can build acceptance and support among lead agency professionals and community members. Included are legislators, criminal justice officials such as judges and prosecuting attorneys, and State and local governments. For example, Immarigeon (1995) reports on an intermediate sanctions program initiated by the Center for Effective Public Policy. The Center's recommendations include four key tasks:

- Developing a high-level policymaking group.
- Planning educational opportunities, gathering data, and developing decision making processes to guide the group's work.
- Using local resources for specific policy objectives.
- Implementing the policies and sanctions developed.

The commitment of policymakers to join and remain part of the decision making and implementation process and the availability of the staff, time, and fiscal resources to support the work and decisions of the policy group are vital for the success of this process. Legislators are influenced by their perceptions of what they believe the public wants. Brown and Elrod (1995) found that policymakers often hold misperceptions of public attitudes toward punishment in general and alternative sanctions in particular. Furthermore, they found that "limited insight to public perceptions could jeopardize fiscal and programmatic needs of the correctional system" (p. 337). The public generally supports alternative sentencing initiatives, believing they make the corrections system more just and responsive to public safety issues and that they provide tools to help change criminal behavior. However, too often political initiatives drive public opinion (Mauer, 2001), so educating both policymakers and the public is vital for programs that include an electronic supervision component.

It would be unwise for an administrator to introduce electronic supervision into a community corrections program without some certainty of public acceptance. Funding and operational support will have to be obtained from public officials who may be reluctant to give them. They will have to be convinced that the program is viable and acceptable to the public (Friel, Vaughn, and del Carmen, 1987).

The Community Anti-Drug Coalitions of America (1995) recommends several steps for influencing public policy including:

- Being knowledgeable about facts that support the intended program development or enhancement.
- Informing elected officials of the issues involved through letter writing.
- Alerting program supporters about the program development or enhancement and urging them to take action.
- Meeting with elected officials to urge their support for the program.
- Mobilizing a public response by gathering statements or signatures of support to be sent to elected officials.
- Developing partnerships or collaborative efforts with other organizations.
- Educating the community about the issues.
- Spreading the message through local media.

Meetings with policymakers provide powerful opportunities for them to hear from their constituents and experts involved in program development or enhancements. Policymakers often are eager to hear from their constituents, but they may have different goals from justice system agencies. While agency leaders would like public officials to support their plans, policymakers may be reluctant to endorse approaches that are controversial. If arranging a meeting with elected officials is not possible, welcome a meeting with their staff who are usually responsible for providing information to and educating policymakers on various issues. Table 11a provides some suggestions for successful meetings with policymakers.

Table 11a. Strategies For Successful Meetings With Policymakers

Preparation
• Know the policymaker and be ready to appeal to his or her personal, professional, and legislative concerns. Learn about the person's district and voting record. • Furnish information about the purpose and agenda for the meeting. Provide summary information and a list of people who will attend the meeting. • Speak with a unified voice by enlisting the support of constituents who back the program's purpose and goals.
During the Meeting
• Work toward clear but limited goals by keeping the discussion focused on one or two key points. Be specific about what is needed from the policymaker. • Provide written materials and visual aids that are clear and succinct and summarize key points. • Make use of "small talk" during introductions and other appropriate times to create rapport and develop a relationship with the policymaker.
After the Meeting
• Evaluate the meeting immediately. Appoint a note taker during the meeting and have that person prepare a written summary and distribute it to meeting participants. • Send a thank you letter that is gracious and polite, even if the meeting was not as successful as desired. Recount statements made and suggest ways the policymaker can help achieve program goals. • Let agency members and other stakeholders know the results of the meeting by providing a written statement.

(Community Anti-Drug Coalitions of America, 1995)

Victims as Stakeholders

Within a restorative justice framework, victims are viewed as one of the primary clients of the justice system. Victims who have experienced personal injury, financial loss, trauma, and other results of their victimization deserve both the understanding and attention of the community and the justice system. Crime victims want the following as a result of the harm they have experienced (Reinventing Probation Council, 2000):

- Safety — To be protected from further victimization.
- Knowledge — To be kept informed about what is happening with their case.
- Restitution – To be repaid for their losses.
- Services — To receive services and resources that address the harm they have suffered.

- Meaning — The outcome of the justice process to be meaningful for them (e.g., receiving an apology from the offender, punishment that fits the crime, knowledge about the justice process).
- Involvement — To be included in the justice process through providing victim impact statements, participation in plea bargaining and sentencing recommendations, and, in some cases, involvement in mediation with the offender.

Victims are a key constituency group for community corrections agencies to consider and inform about the development and implementation of electronic supervision systems. Electronic supervision strategies that include victims as stakeholders can help meet many of the victim needs stated above, especially those related to safety, knowledge, meaning, and involvement.

Another target population for support of community sanctions is agencies (both private and public) and individuals who provide victim support services. Agencies that provide advocacy, restitution, reparation, treatment, and other victim's services can be instrumental in garnering support for programs that utilize electronic supervision. The input from these groups can provide valuable information on which program features can help to instill comfort and reduce fear for victims and ensure offender compliance with court-ordered sanctions.

SOME CONSIDERATIONS ABOUT STAKEHOLDERS

Media as Stakeholders

The media is one of the most valuable and effective tools available to corrections professionals to inform and educate the public. However, the media is often considered the enemy—a negative force to be avoided. Corrections professionals must change their perceptions of the press and recognize that the media can be instrumental in gathering support for various programs and policies, supplying information to stakeholders, and relating good news. The reporter's job is to gather information and then to relate it to the public via television news programs, newspapers, radio, and other media. According to Immarigeon (1995), political leaders compete to be the toughest on crime, while little media attention focuses on how criminal justice agencies operate or what they need to accomplish their mission.

The media must be supplied with valid and reliable information about electronic supervision strategies and equipment so the foundation is laid for trust and confidence among the press, community agencies, and the general public. The corrections professional is instrumental in ensuring that accurate information is given to the press, thereby ensuring that it is a credible source of information for the public (Sigler and Lamb, 1995). The media can be instrumental in ensuring that the purpose and methods of electronic supervision systems are reported accurately (Nicholl, 2000). Corrections professionals who fail to report their successes and ignore the opportunity to report what is positive and what is working feed the stakeholders' notions that electronic supervision tools are ineffective (Cohn, 1998b; Wittenberg, 1997). Table 12b provides some useful information for working with news media representatives.

Community stakeholders who are informed and share in decision-making that addresses their fears and needs are more receptive to alternative sanctioning programs (Boone, 1996; Flanagan, 1996). Garnering public support for such programs is a daunting task for community corrections professionals who must continuously perform numerous tasks that keep both the internal and the external stakeholders informed and educated about a program's electronic supervision policy and goals, program features, evaluations of successes and failures, program and equipment costs, recidivism rates, and other issues (Boone, 1996).

The Public as Stakeholders

Members of the community are important stakeholders of the justice system, and as such, should be informed and involved when electronic supervision strategies are designed and implemented. Generally, the public wants the justice system to recognize and address the following needs (Reinventing Probation Council, 2000):

- Safety from violent offenders.
- Accountability of offenders for the crimes committed.
- Repair of the damage done.
- Education and treatment for the offender.
- Involvement in making decisions.
- Truth.
- Sentences that fit the crime, the offender, and the circumstances.
- Some good to come of justice.

Table 11b. Tips For Attending An Editorial Board Meeting

These tips focus on meeting with the editorial board of a newspaper but may be equally applicable for meeting with representatives from other types of news media.

• Know the newspaper's position on the issue to be discussed by researching recent relevant editorials and news stories.
• Request a meeting with the editorial board. Ask that a reporter attend the meeting or schedule a separate meeting with a reporter. If the editorial board does not support the issue of the meeting, a reporter may want to write a news story.
• Distribute short fact sheets about the program's position of needs and the names and contact information for people who can be reached for more information.
• Invite others to attend if they have particular expertise on the issue, but keep the group small. Prominent community stakeholders in the discussion may increase the credibility and importance of the message.
• During the meeting, briefly summarize the program's position, evidence supporting the position, anticipated criticisms, and appropriate responses to those criticisms. Be prepared to respond to questions and criticisms at a later time during the meeting.
• Defend the program's position if arguments are presented. Some questions may be intended to test the validity of the program's position.
• Respect the opinions and constraints of the editorial board. If they are unable or unwilling to support the program's position, they may be willing to print a letter from the agency or an op-ed piece.

(Community Anti-Drug Coalitions of America, 1995)

Members of the community want to have influence on the system and they want to know how well it is working, its shortcomings, needs, and mistakes and successes. Agencies that are developing or enhancing electronic supervision strategies should address these needs from the inception throughout implementation. Otherwise, they are likely to be misinformed and more reactive in their response to the practice and supervisees' unlawful actions while being supervised electronically.

Other Stakeholders

Other external stakeholders also must be considered when assessing public relations developments and electronic supervision. These include:

- Other justice system officials such as judges, defense attorneys, prosecuting attorneys, and law enforcement.
- Industry representatives such as technology experts and manufacturers and distributors who promote and sell electronic supervision equipment.
- National associations such as the American Probation and Parole Association, American Correctional Association, International Community Corrections Association, and other organizations that offer insight and assistance in planning, developing, and implementing alternative sanctions programs.

USING A PROACTIVE VERSUS REACTIVE APPROACH

Forward-thinking correctional agencies, by anticipating public moods and trends, are proactive rather than reactive in addressing them (Wilkinson, 1996). A key strategic factor for correctional officials is to find ways to encourage a public deliberation about correctional policy, not just a public reaction (Moore, n.d.).

Procedures for the effective flow of information requires a spokesperson who is qualified to address agency issues including policy and procedures, the advantages and disadvantages of the technology being employed, supervisee violation policy and procedure, program costs, and effectiveness ratings. Houston (1999) recommends that an agency appoint a public information officer (PIO) to answer requests for statistics and other information. Smaller agencies can appoint agency staff such as the director, chief probation officer, or anyone who can effectively address issues and deal with reporters. The PIO should be responsible for arranging press conferences and distributing all press releases. (Some tips for writing press releases are provided in table 12c.) The PIO protects the agency from charges of being uncooperative with the media, especially during disturbances and unusual events, and leaves agency professionals free to work on the task at hand.

Houston (1999) also suggests that to ensure accurate and effective media coverage, the PIO should:

- Screen all inquiries. Routine requests can be handled by the PIO, but all inquiries of a policy nature can be routed to the appropriate staff member.
- Provide news releases in a timely manner to accommodate media deadlines.

- Know the local lead reporters in both the print and electronic media and give assistance wherever possible so that they are knowledgeable about the agency and its functions.
- Be the single point of contact with the media to eliminate conflicting information.
- Avoid playing favorites with reporters, as other reporters may perceive this bias and fail to attend future press conferences or ignore press releases.

Public relations issues must be addressed proactively. A good public relations strategy should "sell" the practice to the top decision-makers and effectively elicit public support. The designers will need to develop press kits (suggested contents are provided in table 12d), conduct public information forums and education seminars, and hold press conferences to effectively communicate program benefits and limitations honestly and fairly. The public often has negative perceptions because of their lack of information. It is more difficult to put a different "spin" on negative perceptions once they are formed. Information should be available to help the public understand the program, and questions should be met with credible answers.

The public must be given opportunities to work through the issues and reach resolutions both intellectually and emotionally before some disturbance or event causes misperceptions that are difficult, if not impossible, to change. Program designers, by addressing any successes or difficulties that can and do occur, can help the public overcome resistance to electronic supervision options. According to Shall and Neises (n.d.), policy innovators—interested citizen groups, politicians, high-level appointees, foundations, and others—can have an impact on the barriers that block progress in the resistance and evaluation stages, thereby increasing stakeholders' capacity for reasoned risk, as well as bringing about a full understanding of the goals sought and the terms of accountability with which they must contend.

Table 11c. Tips For Writing News Releases

There is no single way to prepare a news release. However, generally accepted practices include the following:

Content

- Tell the reader all the major facts in the first paragraph:
  - Who
  - What
  - When
  - Where
  - Why
  - How
- Each paragraph should be more important than the paragraph that follows it.
- Make sure all information is accurate and timely.
- Check names, spelling, numbers, and grammar.
- Use short sentences.
- Write with active verbs; avoid stilted wording; avoid jargon and technical terms.
- Provide a short summary or news memo covering the major points of the story.
- If the story is complex, provide background information as a separate fact sheet.

Length

- Keep it short – limit to one double-spaced page, if possible.
- Write "more" at the bottom of each page if the release exceeds on page.

Title

- You may title the release as a summary of the content. However, news organizations are likely to select their own headlines.

Release Date

- For most releases write "immediate" or "for use upon receipt" at the top.
- If there is a specific reason to stipulate a release time, make this clear. Reasons a release might be held include a need to coordinate it with a speech by someone else, have it appear with another news announcement, or to release it during a meeting.

For More Information...

- Be sure to include the name, address, and phone numbers of the persons who can provide additional information on the story.

(National Institute of Corrections [NIC], 1999)

Table 11d. Suggested Contents Of A Press Kit

- Fact sheets and background information about the electronic supervision industry.
- Fact sheets and background information about your agency or program.
- Biographies of any spokesperson for the organization or industry.
- Potential story topics.
- Photographs.
- News releases.
- Brochures or annual reports.
- News clippings and advertising reprints.

Be sure all materials in a press kit are:

- Clearly written.
- Accurate.
- Current.

EDUCATE DECISION-MAKERS

This section will discuss briefly some of the important information to give to central actors who determine justice system policies. It could be that policymakers and judges are a bit uninformed or misinformed about specific supervisee types, reentry, and risk categories. There is a lot of talk about reentry, but when you ask someone to define this process you will get nearly as many answers as individuals asked. For some, reentry is a time during which individuals are released from prisons back to the community, and they are in need of help finding a home and job and require a lot of supervision to make sure they do not commit another crime. For others, reentry is incorporating individuals on probation that have served a short-term in jail, and these individuals will have specific needs that should be met to ease their transition into the community. These offenders, for the most part, have low educational attainment, mental health problems, substance abuse issues, and other characteristics that make it extremely difficult for releases to find housing, employment, and health care services (see the Reentry Policy Council webpage http://reentrypolicy.org/report/TOC). This is not to suggest that all returning offenders suffer from these ailments to suggest their relationship to crime causation. Instead, we are merely highlighting the many needs that typical offenders bring to probation and parole caseloads. We will discuss briefly seven types of offenders as they relate to reentry and public relations initiatives for community supervision.

SEX OFFENDERS

There are few crime categories that frighten the general public more than those labeled sex offenders. Despite the general public and policymakers typically viewing sex offenders as a monolithic group, community supervision officers usually are aware of the diversity of these offenders. Many sex offenders commit crimes that can cause long-term trauma for their victims, the victim's family, and the community in which the crime occurred and where the offender plans to live. The media is quick to report the release of high-risk and potentially very dangerous sex offenders, which makes it more difficult for community supervision officers to do their jobs. Zevitz and Farkas (2000, p. 15) looked at the effects of a community notification law passed in Wisconsin on probation services throughout the state. Here is one excerpt from a probation officer: "There was a media onslaught, with most information being negative…All landlords subsequently contacted

denied a residence, mostly out of fear from the media attention. When a residence for the offender was found in another police jurisdiction, residents in that area started a rally and the plan for placement was not followed." The authors mention that this was a typical response from officers trying to place sex offenders, with another officer stating that "The person who was going to house the individual received death threats and decided not to house him. The media also didn't help the situation…there needs to be some resolution for the [high-risk sex offenders] to be able to live somewhere."

The point here is that sex offenders, especially the high-risk ones, have a good chance of receiving public attention no matter what community corrections agencies do. Community corrections agencies are advised to meet these media reports head-on by acknowledging that high-risk sex offenders (and low-risk ones as well) are in the community. This is not by choice, but rather the nature of living in contemporary society and it is the job of community corrections agencies to supervise sex offenders in the community. The public should know that community supervision cannot guarantee that future sex offenses will not happen in their community. In fact, such offenses may be committed by individuals never convicted of a sex crime in the past. From a public relations and public safety standpoint, agencies are served better by being open and honest with the community.

The electronic supervision of sex offenders should be discussed at well-publicized community forums and through press releases. These public relations activities are your opportunity to let the public know what they should expect from electronic supervision of sex offenders and how the equipment works. Community corrections agencies do not need to explain all the nuances of electronic supervision, but simply to let the public know that these devices have strengths and weaknesses. It is typical that sex offenders are placed on GPS tracking as one component of the supervision strategy used to hold offenders accountable to work toward behavior change. The public knows little about community corrections, and even less about supervising sex offenders. These public relations activities are your chance to provide community members with clear expectations of the community supervision process. If your agency is engaged in a multi-agency approach to supervise sex offenders, then bring as many representatives from that team as possible. This may allow the public to see that there is a concerted effort in place to supervise sex offenders and to work toward providing a strong external control component over sex offenders.

Consider the first time you heard about GPS tracking. Did you think officers would watch computer screens all day long? Did you envision something similar to a NASA launching terminal? Or did you know that GPS is a tool that may enhance the supervision process despite its many weaknesses? It is difficult to account for the numerous potential misconceptions related to GPS tracking, but what appears obvious is that the public and policymakers are implementing legislation rapidly to mandate GPS tracking of sex offenders. This legislation comes with several unanticipated consequences (see DeMichele, Payne, and Button, 2008) that will emerge eventually and potentially cause undue embarrassment for your agency. One strategy to diminish such embarrassment is to identify for the public the strengths and weaknesses of any electronic supervision technology used to aid the supervision of sex offenders (e.g., GPS, polygraph, plysmograph). It is essential for the public to know that none of these tools are a magic bullet or panacea to sex offenses.

Instead, these are all tools that can be incorporated into an overall strategy to supervise sex offenders in the community.

DOMESTIC VIOLENCE OFFENDERS

Domestic violence offenders pose specific sets of risks and dangers to their victims and the communities in which they live. Although domestic violence offenders do not promote nearly as much media attention as sex offenders, there are several issues that the public should be aware of regarding their community supervision. First, it is typical that domestic violence offenders, despite often causing serious physical and psychological trauma for their victims, are often charged with misdemeanors and supervised with GPS tracking at pretrial (see Erez and Ibarra, 2007), with few community corrections agencies maintaining electronic supervision of domestic violence offenders following pre-trial supervision. While the public is most concerned that sex offenders will commit an attack on a new victim, especially a child, domestic violence offenders, for the most part, are known to re-victimize the same victim. For this reason, GPS tracking of domestic violence offenders is mostly concerned with providing a safety zone for the victim by using bilateral electronic supervision technologies. These devices allow for a domestic violence victim to carry a transmitter that will notify them if their offender is too close. Any public relations initiatives should focus on informing the public about what is realistically expected from this technology—the protection of a domestic violence victim. Domestic violence offenders are notorious for stalking and harassing victims long after the physical abuse. This sort of victimization forces many victims to hide and fear going to their own homes even though the abuser is out of the house.

Erez and Ibarra (2007) spoke with many domestic violence victims to better understand the role that bilateral electronic supervision tools had in their lives. The victims told numerous stories—all different but with a similar theme of psychological torture—of how their abuser continued to victimize them even though the victims had sought justice system support. This made many victims feel powerless. The electronic supervision component allowed victims to reclaim their homes and re-enter civil society with more confidence and less fear of the offender showing up in many places. One victim said: "In my home I feel safe; all five of us are very fine. And we, it's almost like—whoa, he's not coming. I'm not worried. I can open my bedroom window now and not worry. He broke in that way before. He broke in the back door...But ever since [electronic supervision], he's really just stayed away" (Erez and Ibarra, 2007, p. 109). Another victim reported that "I never forget the box [electronic monitor] is there. I slept with it on my headboard, so I felt safe at night and I could hear that click. I said, you know what, I feel like my mom and dad were checking on me and that they don't worry" (Erez and Ibarra, 2007, p. 110).

The electronic supervision of domestic violence offenders, obviously, has much different purposes than that of sex offenders and other offenders. Domestic violence supervision is mostly concerned with the protection of the victim at hand, and not as concerned with stranger victimization. This is not to suggest that individuals convicted (or accused) of domestic violence are not potentially dangerous to others in the community. Rather, it is to say that any public relations initiative should focus on the purpose and expectations related to the use of electronic supervision tools.

BURGLARS AND CAR THIEVES

Another crime category potentially suitable for electronic supervision technologies includes burglars and car thieves. The community supervision of these offenders might be enhanced by placing such offenders on GPS tracking because their crimes are place based. That is, their crimes require them to be in certain locations at specific times. They are at a house or business to enter the premises to take things unlawfully, and car thieves do something very similar with the exception that they are stealing cars. GPS tracking of such offenders would enable community supervision officers to determine—after the fact—whether an offender being monitored with GPS was at a certain location during the time of a burglary or car theft. Community corrections agencies could engage in public relations initiatives to discuss the reentry of such offenders and how GPS may enhance their community supervision.

HIGH-RISK OFFENDERS

Thus far we have only discussed specific offender types based on a person's current offense, and we have ignored what is more foundational for community supervision—risks and needs. Over the past few decades, community corrections agencies have shifted their attention from using quantitative measures to qualitative measures to identify effective supervision practices. Mario Paparozzi, a former director of the New Jersey Parole Board, tells a story of how during his early days as a parole officer in New Jersey he would go out and try to do as many house visits as possible in as short a period of time as he could. This process included him running through apartment buildings that had several parolees in them, which allowed him to simply check these folks off as having been visited (DeMichele, 2007). This sort of strategy says nothing about the quality of these visits or the different risks and needs of each offender. No, these offenders were all treated the same and the approach was merely to ensure that each parolee was visited with a certain number of times. These sorts of contact standards have (hopefully) been replaced by standards that recognize the individuality of offenders, which isn't to say that similarities do not exists among offenders, because they do. But community corrections supervision has changed to recognize that each offender comes with rather unique risks of recidivating and criminogenic needs that shape these risks. So, what does all this mean? This means that research has found that if community corrections agencies provide too much structure to lower-risk offenders that we can increase their likelihood of reoffending, and if we do not place enough structure on higher-risk offenders, their likelihood of reoffending also increases.

Community corrections officers only have so much time, however, which precludes them from being able to provide highly structured environments for everyone. So, how do you know if you are supervising a high risk offender? Unfortunately, riskier offenders do not have identifiable physical characteristics. Researchers have worked hard to identify certain individual characteristics that identify the likelihood of a new crime. Although the science behind risk and needs assessments instruments is somewhat complex, it is not beyond understanding. That is, most of these actuarial instruments are based on a serious of questions that are related to past criminality, past substance abuse, prior justice system experiences, and other historical (and unchangeable) characteristics. Risk and needs instruments also incorporate a serious of dynamic or possibly changing characteristics such as employment, education, and ongoing behavior patterns.

Any public relations campaign should inform the public of some of these issues related to risks and needs assessments that are used to separate the higher-risk offenders from the lower-risk offenders. The electronic supervision technologies appropriate for one risk category may not be appropriate for another risk category. There is no reason to over supervise low-risk offenders because this will diminish the efficiency and effectiveness of community supervision. However, agencies cannot under-supervise higher-risk offenders either. The public knows little, if anything about high-risk or risk assessments, and it is the community corrections agency's responsibility to inform their community.

Another important issue to confront is the difference between risk and danger. Risk instruments do not measure danger. They measure risk of a new crime or technical violation, and nothing more. These instruments, when used in conjunction with officer input, are a valuable tool for shaping case plans. They are not magical instruments that are accurate 100 percent of the time. Community corrections agencies have to be upfront about this with their community. False expectations can lead to serious dissatisfaction, so utilize public relations initiatives as your opportunity to keep the public informed, and prevent false expectations. Inform the public that risk and needs assessments are another tool that supervision officers utilize to determine how to interact with offenders as well as to make important decisions regarding the type of electronic supervision technology—if any—to be included in the supervision plan.

LOW-RISK OFFENDERS AND NET WIDENING

Now that we have talked briefly about high-risk offenders, we should mention offenders on the other end of the risk spectrum. A significant concern for many is what several criminologists refer to as "net widening". Net widening regarding electronic supervision technologies refers to placing certain offenders on community supervision with electronic technologies who in the past would not have received any sanction at all. This creates a situation in which the justice system's net grows wider by incorporating individuals who would have maybe only received a fine or no sanction at all. This brings us back to some comments made throughout this guidebook about realizing that electronic supervision technologies are merely tools that must be used correctly. It is a common human response to think that if a little of something is good, then a lot of it must be really good. Well, most of us have learned this is not true with many things in our lives, and electronic supervision tools are the same. Just because electronic supervision technologies exist and your agency has them in stock, that does not mean they have to be used on people who would not have received a sanction otherwise. We cannot allow this to happen with electronic supervision tools. Public relations initiatives need to clearly state why certain offenders have supervision conditions including electronic tools and why others do not.

Evidence-based practices recognize the need to keep lower risk individuals separated from higher risk individuals. Sometimes jails and prisons are referred to as universities for criminals because it is believed that some offenders adopt more criminal values, attitudes, and behaviors following incarceration. Similarly, if individuals who have relatively few criminogenic needs are placed in treatment or attend other services together, it has been found that the lower risk individuals perform worse than if they did not receive a sanction (Andrews, et al., 1990; Lowenkamp and Latessa, 2004). Electronic supervision tools provide the community corrections field with some potentially effective tools to supervise

these lower risk offenders (e.g., call-in services, kiosks). Obviously, by spending less time supervising lower risk individuals, officers will have more time to concentrate on higher risk individuals.

PUBLIC EDUCATION

Community corrections professionals must educate and inform the public of the policies, goals, advantages and disadvantages, costs, recidivism rates, and other issues related to electronic supervision systems. Orientation and educational programs should include all interested parties such as the judiciary, prosecutors, defense attorneys, probation, parole, medical/health services, family support services, law enforcement, victims, community, media, and other interest groups (American Probation and Parole Association, 1989).

Manufacturers, distributors, service providers, community corrections agencies, and the judiciary and releasing authorities share in the responsibility of understanding how electronic supervision technologies work to varying degrees. The amount of information needed by various persons usually depends on the roles of those involved. However, one should not hold back requested information based on another's predetermined role. Conway (1998b) suggests there are three groups to consider in relating information:

- Those involved in any aspect of managing electronic supervision caseloads or programs who are responsible for formulating and carrying out the policies and procedures of the equipment should know all the details of the equipment and the program.
- Those responsible for sentencing, referring, or authorizing offenders' participation in programs using electronic supervision need basic information to assess the level of risk and whether the offender can be supervised adequately, but they do not need the level of detail required by program personnel.
- The public needs to know some of the basics about how the devices work to protect society such as the range of the transmitter, if and how the transmitter can be removed by the offender, and whether tampering can be detected.

In a study conducted by Sigler and Lamb (1995), the authors found that community stakeholders who were informed and had accurate knowledge of community corrections had more positive attitudes toward the use of community correctional alternatives. Their findings concluded that community education should be a part of any effort to establish and maintain community corrections initiatives.

What electronic supervision systems do varies with the jurisdiction in which they are being used and the technologies employed. Electronic supervision is used as an alternative to probation/parole revocation, an enhancement of probation/parole supervision, a tool for work release, and a part of pretrial and post conviction jail diversion and diversion from prison (American Probation and Parole Association, 1989). The devices are employed at all levels of the justice system to supervise both juveniles and adults. Electronic supervision devices do provide increased surveillance, control, and supervision of offenders, but they do not replace personal supervision and treatment services. Immarigeon (1995) warns

that no intervention, however well designed and implemented, is appropriate for everyone.

Effective community sanctions cost money. Corrections professionals must be honest with the community stakeholders about what it costs to ensure public safety. Funding for community corrections practices depends on whether agencies can prove to the public that they are efficient and effective in bringing about behavior change. Therefore, needed resources depend on results that are accurately measured and honestly reported. Some practices offset the cost of electronic supervision to the community by setting up systems in which supervisees who are employed are responsible for paying a daily amount or a percentage of their salary. Members of the public often want to know offenders are being held accountable in this way.

There are several obvious reasons to adopt electronic supervision that appeal to the public. Humaneness requires that, whenever possible, the correctional administrator take actions that improve, or at least maintain, the life and potential of the supervisee while he or she is under the control of the State (O'Leary and Clear, 1984). When the individual is maintaining employment while under community supervision, electronic monitoring devices allow the offender to continue working, receive a salary, and pay taxes. The employed supervisee may not need public assistance funds to support himself/herself, may only need partial assistance for family support, and is responsible for his or her own medical care. Usually, coerced treatment services are a condition of the offender's release into the community. Those under corrections supervision stay in treatment longer, thereby increasing positive treatment outcomes (Petersilia, 1996).

Community supervision also helps families stay together, enhancing cohesiveness and increasing the chance for success. The forced discipline, structure, and schedule may help advance long-term behavior change.

HAVE A CRISIS MANAGEMENT PLAN

It is likely that some offenders will commit crimes while under electronic supervision. Corrections officials must approach the implementation of any new corrections program with the understanding that things do go wrong. There has been a growing awareness of the potential for serious devastation resulting from crisis situations such as a terrorist attack, earthquake, hurricane, chemical spill, pandemic flu, or other disasters. In this post-9/11 and Katrina era it has become obvious that these forms of events have the ability to paralyze cities and towns, clog transportation routes, flood communication structures (if they are in place), and test the efficacy of disaster response strategies from many civil service providers. Such crisis situations require preconceived response strategies and protocols for justice system professionals.

Every agency should have a crisis management plan in place well before any untoward event occurs. The crisis management plan should spell out the steps to be taken to notify both internal and external stakeholders about the event. Other justice system personnel, victims, the public, and the media will need to be given information. They will want to know:

- What happened — Describe the situation with as much detail as needed (without breaching confidentiality) for the appropriate audiences to understand the situation.
- Who was involved — Provide specific information except where doing so would jeopardize a criminal investigation, in situations where relatives of victims have not yet been notified, when a juvenile offender is involved, or in cases involving rape or sexual abuse.
- When the event occurred.
- Where the event occurred.
- How the situation developed.

The National Institute of Corrections (1999) suggests the steps in table 12e for handling an emergency. Having a crisis management plan can avert many problems including inaccurate stories from the media, rumors, criticism, and diverting the attention of staff from their most important job of supervising offenders. Failing to manage crises effectively can cost the agency prestige, community standing, and good will (National Institute of Corrections [NIC], 1999).

Once your agency has devised an emergency response plan, it is important to conduct practice sessions. This should begin with practicing officer response and should build to include offenders. Offenders should know how to respond in the event of a massive flood, power outage, or other crisis situation. While it is unreasonable to expect offenders to report when their life may be in danger during a crisis event, it is not unreasonable to inform them of ways they should make contact with appropriate community supervision staff once the immediate threat of loss of life has passed.

Table 11e. Crisis Management Plan

- Have a designated public relations spokesperson who will take charge of handling communication during a crisis situation.
- Seek all available information about the situation.
- Make arrangements for and maintain contact with the press and other stakeholders. For example, separate designated areas may need to be set up for victims or family members and the press.
- Have a designated agency administrator who will approve the text of press releases and with whom the public relations spokesperson can consult for answers to questions.
- Respond with appropriate speed. Maintain close contact with media representatives and be willing to help them meet print, radio, or television deadlines.
- Maintain composure even in tense situations.
- Disseminate the same information to all sources. Keep a log of information released and the times at which it was released to avoid duplications and conflicting reports.
- Maintain contact information for those who receive information in case it is necessary to provide them with follow-up information.
- Always provide truthful information; never lie or minimize when answering questions.
- When answering questions provide or confirm only information that is known; never speculate. Attempt to find out answers that are not yet known.
- Accentuate the positive when possible. For example, although this crisis has occurred, in general, electronic supervision technologies work well and have benefits.
- Prepare general information about the program and the technologies used that can be distributed to stakeholders if a crisis occurs.

(National Institute of Corrections, 1999)

CONCLUSION

This chapter reviewed the important role of a variety of stakeholders in the implementation of a successful system to supervise offenders electronically. It then discussed the necessity for taking a proactive approach in public relations around issues relating to electronic supervision. Tips for preparing and managing various public relations tasks as well as the importance of having a crisis management plan also were addressed.

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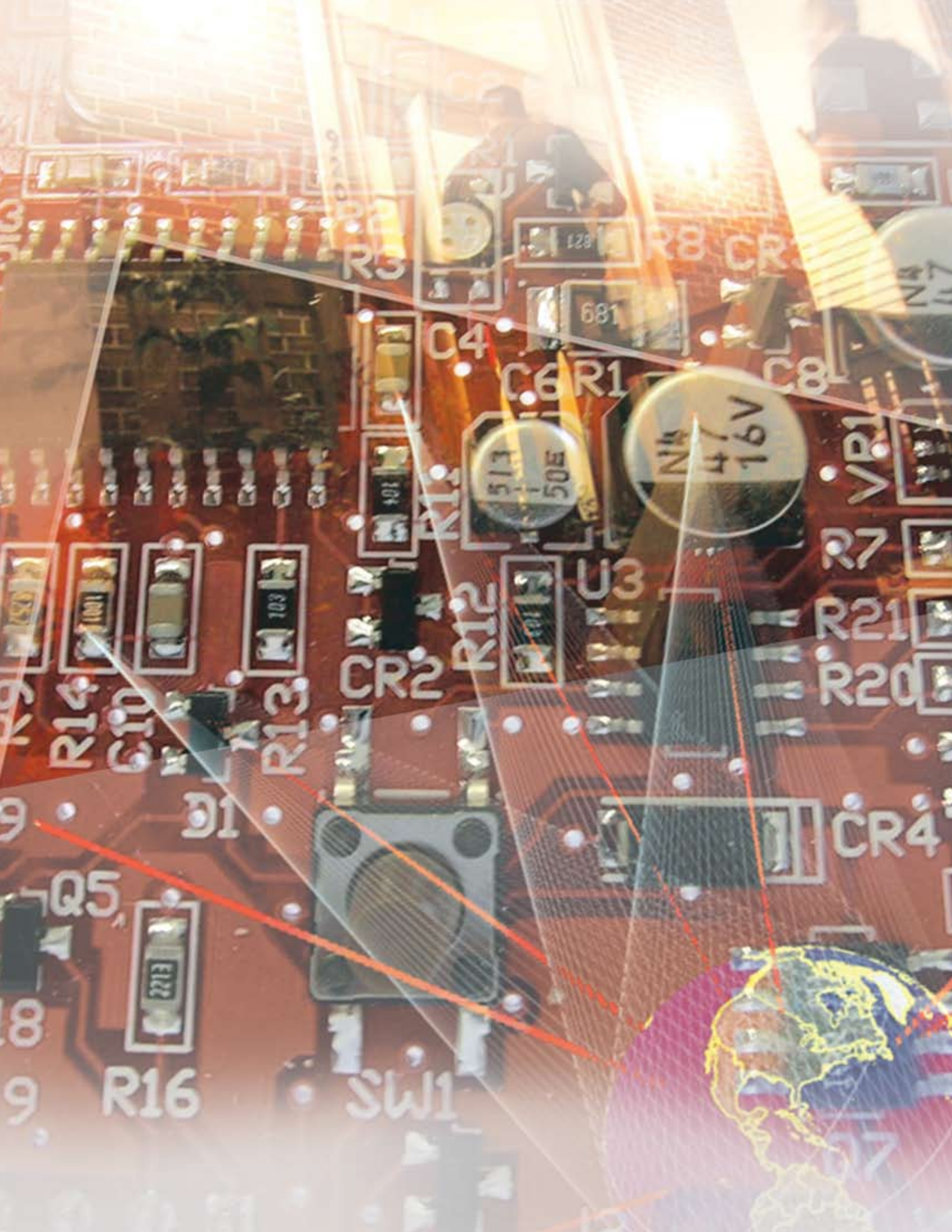
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