

# **EXECUTIVE SUMMARY**

## **The Feasibility of Implementing Global Position System Monitoring with Crime Scene Correlation in the State of Ohio**

James D. Kelsay, M.S.  
Research Assistant

Ian Silver, Ph.D.  
Research Assistant

Jamie Newsome, Ph.D.  
Research Coordinator

Daniel Gerard, M.S.  
Project Director

Edward J. Latessa, Ph.D.  
Investigator

Cory P. Haberman, Ph.D.  
Principal Investigator

Submitted: December 13, 2019

University of Cincinnati Corrections Institute  
School of Criminal Justice  
PO Box 210389  
Cincinnati, Ohio 45221-0389

## **Introduction**

As part of Senate Bill 201, the Ohio Department of Rehabilitation and Correction (ODRC) was required to study the feasibility of contracting with a third-party contract administrator for global position system (GPS) monitoring that would include a crime scene correlation program that could interface by link with a statewide database for GPS-monitored offenders. The system under consideration would allow law enforcement agents to remotely search a statewide database that includes all offenders placed on GPS monitoring, to access information regarding the offenders' current and prior locations without a subpoena or warrant, and to access information pertaining to the offenders' proximity to locations where a crime has been reported. ODRC contracted with the University of Cincinnati Corrections Institute (UCCI) and the University of Cincinnati Institute for Crime Science (ICS) to conduct this study.

## **Project Purpose**

There were several purposes of this feasibility study including:

1. To review the empirical literature pertaining to the effectiveness of EM at reducing recidivism, a discussion of the economic costs associated with EM, a synthesis of the literature discussing the advantages and limitations of EM, as well as a brief overview of the legal and ethical issues that have been raised about this supervision strategy.
2. To determine the current usage of EM and GPS monitoring in, as well as the current costs of these technologies.
3. To gather stakeholders' opinions on the use of GPS monitoring, access to real time crime information, access to centralized criminal history information, and opinions about the potential advantages and disadvantages of the crime scene correlation system.

## **Methods**

The University of Cincinnati (UC) research team employed several methods to provide a comprehensive assessment of the potential use of this technology to reduce crime and enhance public safety. First, a systematic review of the existing research on the use of electronic monitoring was conducted to determine whether the use of the technology is generally an effective strategy for reducing recidivism. Second, data was acquired from ODRC to identify key characteristics of offenders who may be suitable for GPS-tracking and estimate the potential extent of the use of this technology in Ohio. Additional data was examined to project the costs of expanding the use of electronic monitoring (EM) in the state. Third, interviews were conducted with key stakeholders throughout the state to garner opinions, interests, and needs surrounding the use of GPS as described in SB 201. Fourth, other states that currently use the same or similar technology were identified and examined to consider how GPS is used in other locales, and whether existing practices could inform the development of these supervision strategies in Ohio. The remainder of this report describes each strategy in detail, as well as the findings. The report concludes with recommendations for ODRC.

## Key Findings

### Objective 1: Review of the Empirical Literature

#### *Effectiveness at Reducing Recidivism*

- The evidence is mixed; with some studies show an effect on recidivism and others no effect. EM appears to reduce recidivism when applied in lieu of incarceration; however, EM does not appear to reduce recidivism among offenders supervised after release from prison.

#### *Advantages of Electronic Monitoring*

- EM monitoring provides correctional and law enforcement officers with a supervisory tool to hold offenders accountable to temporal and geographic restrictions on their movement.
- EM monitoring can promote public safety by restricting offenders from specific places and people that are at risk of victimization and quickly alert supervisors when restrictions are breached.
- EM is a highly versatile tool, suitable for application at any stage of criminal justice system processing and for a variety of types of offenders.
- GPS monitoring programs allow for the collection of useful information about offender movement patterns.
- EM is associated with a cost-benefit when implemented as an alternative to incarceration. Many of the studies reviewed suggest that sentencing offenders to community supervision with EM rather than incarceration results in substantial savings.
- Supervision programs with EM may have the potential to support the diversion of convicted offenders. Diversion to community supervision with EM may help avoid the negative outcomes associated with prison because offenders are able to serve their sentences in the community rather than a correctional facility and maintain employment while doing so.

#### *Limitations*

- The most commonly reported disadvantage among programs using EM is the potential for technology related issues to occur. These include; malfunctioning monitoring devices, power and battery failure, and discord in communication between electronic databases.
- GPS monitoring devices are subject to unique limitations because they track offenders around the clock, and reports suggest that malfunctioning equipment can also lead to false alerts.

- EM monitoring require a great deal of resources and coordination from criminal justice agencies. This includes not only the additional costs of hiring, training, and retaining personnel, but also the need for cooperation between staff at multiple criminal justice agencies
- Some studies have noted increases in probation officer case and workloads when EM is implemented.
- Another disadvantage of EM concerns its cost effectiveness. Studies indicate that EM supervision tends to be more costly than traditional parole and probation, and it is unclear whether EM reduces recidivism for monitored offenders compared to those receiving standard supervision.
- EM can create a false sense of security from released offenders among the public. Critics have charged that EM does not necessarily prevent future crimes from occurring by itself; it can only detect infractions to supervision terms and help apprehend offenders after they have committed a new offense.

### *Legal and Ethical Issues*

- EM has the potential to cause net-widening because it can increase the severity of sanctions for those assessed to be low to moderate risk. Offenders with the lowest risk of reoffending are thus pulled into the criminal justice system, kept for longer periods of time, and subjected to harsher supervision standards than they otherwise would have received.
- EM has also been challenged on legal fronts, with cases claiming violations of Fourth, Fifth, Eighth, and Fourteenth Amendment rights. Most of these challenges, however, have not been unsuccessful.
- Concerns of liability for correctional officers, and their respective agencies, who supervise offenders using EM have been raised. Correctional agencies and their staff can face litigation for perceived malfeasance or nonfeasance while offenders are in their custody.

### **Objective 2: Current Usage of EM and GPS Monitoring**

- The data included key pieces of information pertaining to 1,822 individuals supervised on some form of EM<sup>1</sup> funded by the ODRC in calendar year 2018.
  - A majority of the individuals were male, white, high school graduates, single, low risk, not employed, convicted of a felony 3 offense, and convicted of a violent offense.

---

<sup>1</sup> It was not possible to distinguish between different forms of EM (i.e., GPS or other) in the data. Moreover, it was not possible to acquire recidivism data to investigate predictors of success or failure on EM.

- APA used EM to supervise individuals at a cost of \$12 per day for parolees and \$16 per day for transitional control or treatment transfer cases.
- The total cost for the state of Ohio in 2018 for the 1,822 individuals if they all served 56 days is estimated to be \$1.2 to \$1.6 million, depending on the individual's classification.
- If all of the offenders had been placed in prison (regardless of risk level) rather than placed on EM, the state would have experienced an increase in expenditures between \$6,138,551 and \$6,532,671.<sup>2</sup>
- If the EM technology was not used and all offenders had been placed on supervision without EM, the state would have experienced a decrease in expenditures between \$955,281 and \$1,348,401.

### **Objective 3: Gather Stakeholders Opinions on the Use of GPS Monitoring**

#### *Enthusiasm*

- The interviews with the criminal justice stakeholders revealed enthusiasm regarding the potential benefits of the crime scene correlation system.
- The stakeholders frequently suggested that real time crime information could benefit correctional agencies by providing case managers with key information about individuals on supervision, particularly if staff need to make personal contact with them.
- The stakeholders often believed that the crime scene correlation system could enhance the investigative process for police and probation/parole officers.
- The stakeholders also focused on increasing the communication between police officers and probation/parole officers, and increasing the ability to locate clientele in the community that may have violated the terms of their probation/parole.

#### *Concerns*

- The development of a GPS monitoring with crime scene correlation would require the sharing of data across multiple systems (e.g., GPS monitoring data, real-time crime information); however, some interviewees reported concerns about the completeness and the accuracy of the available information.
  - Agencies in Ohio that use EM/GPS monitoring reported concerns regarding the legitimacy of alerts pertaining to an individual's whereabouts and the high incidence of "false alarms" with this technology.

---

<sup>2</sup> These summary calculations are based on a low of \$12 per day for parolees and \$16 per day for transitional control and treatment transfer and the median EM term of 56 days.

- A statewide database, the Ohio Law Enforcement Gateway (OHLEG) system, contains a portion of crime occurrences; however, there is tremendous variation in the use of this system across agencies in Ohio. Additionally, the data can provide some indication of crimes that have occurred in the state but are inconsistent and incomplete. No systematic processes exist specifying what information must be entered or how it should be recorded.
- The interviews with the stakeholders revealed concerns primarily focused on the staffing, available space, and technological requirements for the system.
  - The criminal justice stakeholders often indicated staff would have to be expanded to establish and implement the crime scene correlation system.
  - The available space and technological requirements were a common concern when discussing the resources needed for the crime scene correlation system.
  - The criminal justice stakeholders perceived that a substantially increased budget would be required to implement the crime scene correlation system.
- Interviewees also expressed concerns about the capability of the crime scene correlation system to prevent crimes from occurring.
  - The stakeholders often cited that access to real time crime data (similar to the crime scene correlation system) would only inform the police, supervising officers, and case managers of a crime *after* a call for service was made.
  - While some respondents did suggest that the crime scene correlation system could act as a deterrent for criminal behavior, others suggested that the crime scene correlation system would likely provide the same deterrent effects already resulting from GPS monitoring.

## **Crime Scene Correlation in Other States**

### *California*

- GPS monitoring is typically reserved for sex offenders, high-risk gang members, and other cases with special circumstances. These offender categories represent populations that California determined have the greatest concern for committing a violent crime.
- California Department of Corrections and Rehabilitation (CDRC), rather than offering GPS as a standalone practice, integrates GPS technology into an overall supervision program that combines GPS monitoring and traditional intensive supervision. This information is not merged with law enforcement crime data in real time due to system limitations on both sides.

- The CDRC GPS monitoring component uses an active system — meaning that a data point is taken every minute and transmitted nearly in real time. The CDRC GPS software system tracks information about parolee activities and transmits it to a monitoring center.

#### *Other States*

- Nineteen other states had implemented laws to guide the placement of offenders on GPS monitoring for offenders. The majority require selected sex-offenders to be monitored on GPS supervision.
- It appears that GPS monitoring in others states presents similar problems to the ones indicated during the interviews with criminal justice stakeholders. Specifically, the high cost, staffing concerns, and available space concerns are amongst the key disadvantages to GPS monitoring in among states.
- Other state officials have cited increased liability when GPS monitoring is implemented in an agency. This increased liability corresponds to the ability to track the position of the offenders in real time.

### **Recommendations**

Based on the above findings the following recommendations can be made:

1. Prior to expanding the use of GPS monitoring in the state, evaluate the effectiveness of the technology in the state using a rigorous research design such as a randomized controlled trial. Given that the empirical evidence on this strategy is currently mixed, such a study would provide valuable insights regarding which group of offenders experience the greatest reductions in recidivism when placed on this type of supervision.
2. The implementation of any new technology or practice should first be pilot tested and evaluated in an isolated part of the state, such as one county, before being implemented statewide.
3. Clearly identify a target population and create policies to specify decisions about placement on EM/GPS monitoring. Agencies should be strategic and supervise specific categories of offenders (e.g., sexual offenders, individuals with a history of violent or serious offending) and high-risk individuals on EM/GPS monitoring given that these individuals have the highest likelihood of recidivating. Research on the use of the ORAS in the state has shown that approximately 2 out of every 10 individuals that score low, 4 out of every 10 individuals that score moderate, and 6 out of every 10 cases individuals that score high on the ORAS recidivate. The largest group of offenders being supervised on EM, however, are classified as low risk. This may be due to the nature of the individual's offense (it is not uncommon for individuals convicted of sexual offenses to be classified as being low risk for recidivism on general assessment tools); however, clear guidelines around which offenders should be placed on EM could be useful in strategically allocating funds.

4. Known limitations with existing data sources should be remedied before considering the development of a new technology that would rely on these databased. The utility of the new system would rely on the quality of the information that is fed into it. Given the concerns around existing databases, a critical priority should be to improve the accuracy and completeness of existing sources of information.

### **Conclusions**

As demonstrated throughout this report, there is limited evidence to suggest that the widespread use of GPS and other forms of electronic monitoring—with or without crime scene correlation technology—will promote reductions in recidivism and enhance public safety. The daily operations required for such a system are exceedingly complex and would require careful planning and consistent oversight. Additionally, the costs associated with developing and operating such an initiative would be substantial and recurring. While some costs may be offset by strategically reallocating funds, it is unlikely that these would be sufficient to support the ongoing costs of maintaining the new initiative. Finally, the lack of a unified data management system makes the likelihood of implementing a GPS monitoring with crime-scene correlation technology highly unlikely to be attainable at this time.