GPS Monitoring:

An Effective, Cost-Saving Option

By Doris Wells

Author's Note: *Findings and conclusions reported in this article are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.*

With rising costs and shrinking budgets, corrections administrators are always looking for ways to reduce costs. A study of high-risk sex offenders on parole in California showed that those placed on Global Positioning System (GPS) monitoring had significantly lower recidivism rates than those who received traditional supervision.[1] The GPS monitoring system also proved to be more cost-effective than traditional supervision. GPS is a space-based global navigation satellite system that provides location and time information in all weather, anywhere on or near earth. It uses a network of satellites to produce accurate time and position information, such as the physical position of an offender wearing a tamper-resistant bracelet that receives transmission from the satellites to calculate the offender's location. States are now using GPS to monitor and track offenders on parole.

The study included 516 high-risk parolees who had been released from prison between January 2006 and March 2009. High-risk populations were identified using a standardized instrument called Static-99. Fifty percent of the parolees wore GPS monitoring devices in addition to receiving traditional parole supervision, which involved regular contact by parole agents and weekly sex-offender treatment classes (GPS group). The other 50 percent received only traditional parole supervision (traditional group). Researchers tracked the parolees for one year following their initial parole dates. The study involved two kinds of evaluation: an outcome evaluation — to assess the cost and effectiveness in reducing criminal behavior; and a process evaluation — to assess the program's design and implementation.

Outcome Evaluation

The researchers analyzed information from the state's data management system and examined official arrest records, parole supervision records, GPS monitoring data and state cost information. In addition, they conducted a survey of roughly 1,000 California Department of Corrections and Rehabilitation (CDCR) parole officers. The survey included questions about the GPS monitoring system, caseloads, program staffing and screening of high-risk sex offender parolees.

The results showed that GPS monitoring was more effective than traditional parole in reducing recidivism and was also more cost-effective. Parolees in the traditional group — those not placed on GPS monitoring — committed new crimes and had their parole revoked more often than parolees in the GPS group. The traditional group's recidivism rate was 38 percent higher than that of the GPS group.

The cost analysis showed that in California, monitoring parolees using GPS costs approximately $35.96 a day per person, whereas the cost of traditional supervision is about $27.45 a day per person. The researchers found that the GPS program is more expensive, but more effective. Although the GPS program costs $8.51 more per day than traditional supervision, the GPS approach produced a 12 percent decrease in arrests for any offense (from approximately 26 percent to 14 percent). In addition, GPS-monitored offenders complied with the terms of their parole at higher rates than offenders on traditional parole. Moreover, the cost of California's GPS monitoring is lower than the cost of "indefinite civil commitment" — which involves sending sex offenders whose prison sentences are over, but who are believed to be too dangerous to release into the community, directly from prison to confinement in other appropriate community institutions. Such civil confinement programs can cost an average of more than $100,000 a year per person because of the required programming.

Process Evaluation

The researchers also examined how well the GPS program delivered services as CDCR intended. Through a process evaluation, they found that CDCR had developed a protocol for the GPS program, and had largely followed it as intended. The "fidelity" of a program's processes and procedures is extremely important. If all program participants do not follow the processes consistently as intended, the effectiveness is impossible to measure. Based on their findings, the researchers made several recommendations that could be beneficial for correctional policymakers and practitioners.

Reexamine the identification of high-risk sex offenders. Using a more effective instrument than the standardized Static-99 to identify high-risk populations — one that can differentiate the recidivism risks among offenders and the varying threats to public safety — would be helpful.[2] Nearly half of the parole agents responding to the survey said that the Static-99 does a poor job of identifying high-risk sex offenders. The researchers noted that the current risk instrument may predict recidivism, but it does not rank the offenders according to the level of risk (e.g., ranking those convicted of noncontact offenses such as exhibitionism as less high-risk than rapists and child molesters).

Monitor attendance at treatment classes. Researchers found that the parole agents and service providers did not effectively track the parolees' attendance at treatment classes. One-hundred parolees had no record of attending treatment during the study period, and only 75 percent of parole agents said that their parolees attended treatment at least once a week. Previous research indicates that meticulously monitoring sex offender treatment is important — sex offenders who stop attending treatment have higher recidivism rates.

Use graduated sanctions that balance cost and risk. Instantly sending someone back to prison for a minor violation is costly. GPS supervision costs $35.96 per person, per day, whereas one day's stay in a California prison is about $129 per person. The researchers recommend that CDCR use graduated sanctions for dealing with parole violations. Such a system weighs the gravity of the offense against the need to preserve public safety — it ensures that a parolee with a serious violation is incarcerated, whereas one who presents less danger is still sanctioned, but in a less restrictive, less costly manner (e.g., by imposing a home curfew on the offender). The researchers noted that California is in the process of piloting a new, structured decision-making system for dealing with parole violations, which will allow parole agents to scientifically weigh an offender's risk level and the benefits of alternatives to prison.

Mandate the use of zones. The researchers also found that parole agents were neglecting to use inclusion and exclusion zones, which are intended to keep parolees either within certain areas or away from certain places that attract many children. The researchers found that only 60 percent of parole officers discussed the limits of inclusion zones, and only 50 percent discussed exclusion zone limits. The researchers argue that the use of zones may be the most important GPS tool because the application of zones allows parole officers to be alerted to specific offender movements. Thus, they recommend making the zones compulsory.

Use a monitoring center to screen alerts. Eighty-nine percent of parole agents reported in the survey that GPS monitoring was more time-intensive than traditional supervision. Agents, for example, must respond to minor alerts triggered by offenders tampering with the device or moving out of reach of the system for a few minutes. The researchers noted that according to an internal CDCR document, officers spent 44 percent of their time monitoring movements by GPS and 12 percent in the field.

To help remove the burden of responding to "minor" alerts, California switched to a centralized monitoring system in 2011. Under the new system, two vendor-operated centers screen the thousands of GPS alerts that agents receive each month and respond to the more technical alerts (e.g., a battery that has run too low). The centers forward alerts that are more serious to parole officers, allowing officers to focus more closely on direct supervision and on responding to real threats to community safety.

Limit caseload to 20. GPS monitoring increases the information that officers receive about parolees, but reviewing this information is time-consuming. To ensure that agents have sufficient time to directly supervise offenders, the researchers recommended smaller caseloads — no more than 20 offenders per officer. The evaluation showed that the size of the caseload was correlated with parole violations and with parolees returning to custody — meaning that the more offenders per caseload, the greater chance of them returning to custody.

Issues and Concerns

The researchers noted that GPS monitoring is not flawless. It sometimes gives "false positives" that indicate the offender has violated the terms of the release, when in fact the offender is in an underground location or sleeping under an electric blanket that disrupts the GPS signal, for example. The researchers also pointed out that the study lasted for only one year, and results may vary during longer periods of time. For example, they noted that none of the existing studies has shown that electronic monitoring does more than postpone recidivism. In the words of Peckenpaugh and Petersilia, "When the bracelets come off, other studies have found that monitored offenders perform no better [in terms of recidivism] than offenders [who] were never subject to monitoring."[3]

Conclusion

GPS monitoring may have some shortcomings, but research shows that it can be an effective, cost-saving option compared to traditional parole. Studies in several states such as California and Florida[4] have shown GPS to be effective in reducing recidivism, but further research is needed to continue to evaluate its long-term effectiveness in reducing recidivism; to identify areas for improvement; and to assess how it may be useful in other areas of corrections.

ENDNOTES

[1] Researchers at Development Services Group Inc., of Bethesda, Md., and Old Dominion University in Norfolk, Va., conducted the study of California parolees. Read their final report to NIJ, titled Monitoring High-Risk Sex Offenders With GPS Technology: An Evaluation of the California Supervision Program, at https://www.ncjrs.gov/pdffiles1/nij/grants/238481.pdf.

[2] Ritter, N. 2013. New tool will manage community corrections … and beyond. Corrections Today, 75(3):66-68. Retrieved from https://ncjrs.gov/pdffiles1/nij/243275.pdf.

[3] Peckenpaugh, J. and J. Petersilia. 2006. Sex offender reentry: Jessica law measures in California. Working paper for the Stanford Criminal Justice Center. Palo Alto, Calif: Stanford University School of Law. Retrieved from http://www.law.stanford.edu/program/centers/scjc/workingpapwrs/JPeckenpaugh_06.pdf

[4] Bales, W. et al. 2010. A quantitative and qualitative assessment of electronic monitoring. Washington, D.C.: U.S. Department of Justice, National Institute of Justice. Retrieved from http://www.ncjrs.gov/pdffiles1/nij/grants/230530.pdf.

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