Community Corrections Directions

*D*rinking. Doing drugs. Driving without a license. Exchanging identities. Common behaviors of paroled and probationed offenders in the community. Common behaviors that nevertheless have been difficult to detect and stop.

Several newly developed technologies may help uncover and curb these behaviors and provide probation and parole officers with tools to better manage their caseloads by doing their jobs more effectively and efficiently.

Three of these technologies were on exhibit during a recent Innovative Technologies for Community Corrections Conference sponsored by the National Law Enforcement and Corrections Technology Center-Rocky Mountain, which is a program of the Office of Justice Programs' National Institute of Justice (NIJ). This yearly conference showcases various new technologies directed to the corrections field.

Driver Monitoring and Surveillance

This surveillance technology consists of a pair of ankle bracelets that collect data on the unique patterns of movement associated with foot-to-brake, foot-to-gas pedal, acceleration, and deceleration of a motor vehicle. Data analysis can then indicate if and when a subject has been driving. In the case of an individual whose license is restricted, rather than suspended, it can also indicate if the driving took place during a prohibited time (such as outside the normal workday).

The bracelets can store and process data for up to 30 days, allowing a community corrections officer to upload data during a scheduled monthly visit. This technology would help community corrections professionals deal with a widespread and longstanding problem, as research indicates that up to 75 percent of all drivers with suspended or restricted licenses continue to drive.

More information about the system is available through the website of NIJ's Office of Law Enforcement Technology Commercialization at www.oletc.org/quadcharts.html (click on License Sanction Enforcement System).

Sleep Pattern Analysis

Sleep pattern analysis technology, already used by some jurisdictions, can provide preliminary indications of substance abuse and help community corrections officials determine if more testing is warranted.

Sleep disruption due to substance abuse can occur in several ways, including altering the sequence and duration of various stages of sleep, total sleep time, and the amount of time needed to fall asleep. The technology consists of a small device, secured to an offender's wrist with a tamper-evident band, that measures sleep quality through recording gross motor activity. Analysis of the data collected may indicate sleep disorders, which potentially could be caused by substance abuse. The device passively collects and records body movement information, and when the offender reports to the probation office or drug court, data can be downloaded and analyzed in a matter of minutes. If data analysis indicates possible substance abuse, the offender can be required to immediately provide a urine specimen for further testing.

Infrared Spectroscopy

Currently in field tests, this technology seeks to modify a glucose-monitoring device into an alcohol-testing product. The device uses a light source, an optical detector, and spectrometers to conduct chemical analysis of tissue and measure alcohol levels. Results, available within just 1 minute, have accuracy comparable to that of breathalyzers and blood tests.

The technology uses infrared spectroscopy to make a nonintrusive examination of a subject's inner forearm; the device also could be modified to examine other parts of the body. The analysis process incorporates a biometric component that identifies an individual's unique tissue structure and tissue chemistry, thus ensuring accurate identification of the person being tested.

In addition to producing results quickly, the device can easily be used by a nonmedical professional and thus has potential for use in a probation office, work release center, or even the suspect's own home or a self-reporting kiosk.

For more information about these and other technologies showcased through the Innovative Technologies for Community Corrections conference series, contact Joe Russo at the Rocky Mountain Center, 800-416-8086 or jrusso@du.edu.

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