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**SUMMARY<sup>1</sup>**

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**A SYSTEMATIC LITERATURE REVIEW OF ELECTRONIC MONITORING OF  
OFFENDERS**

Electronic monitoring (EM) of offenders has gained widespread popularity in recent years as an alternative to incarceration. While the use of electronic monitoring has traditionally been more widespread in Anglo-American countries, many European states, including Finland and Sweden, have experimented and implemented electronic monitoring in different forms as a part of their sanction systems. In Finland, electronic monitoring has been in use since 2006 as a "back door" scheme, which means that the inmates are released back to the community on electronic monitoring at the end of their prison term i.e. prior to the actual parole. As of 2011, electronic monitoring has been applied as a completely new form of sanction, an electronically monitored house arrest as an alternative to imprisonment. The uses of electronic monitoring range from monitoring convicts released to communities to stand-alone sanctions such as electronically monitored house arrest. Some forms of electronic monitoring explicitly target high-risk populations considered a threat to public safety, while others are targeted at low-risk offenders, where imprisonment is not considered necessary. Thus, electronic monitoring can be applied to wildly different populations and may therefore serve several different functions. The aim of increasing surveillance is often to reduce risk to public safety, but when used as an alternative to imprisonment, the aim of applying electronic monitoring is usually to reduce recidivism by avoiding the negative consequences of imprisonment, such as socialisation into criminal subcultures and loss of legitimate employment or study opportunities.

While electronic monitoring has been in use for a little over two decades globally, the effects of electronic monitoring on offending behaviour are still fairly uncertain. For example, despite a growing amount of research on the subject, no reliable conclusions of the impact of electronic monitoring on long-term recidivism have been made. On the other hand, it remains unclear whether electronic monitoring has a net-widening effect, i.e. whether implementing electronic monitoring leads to increased use of surveillance. The common conclusion of many literature reviews and meta analyses has been that studies on electronic monitoring of offenders have typically been of poor quality and often not explicit enough in their study designs. Thus, while electronic monitoring has gained popularity, the desired effects of the programs have not been supported by empirical evidence.

The current study was conducted as a systematic review which focused on the electronic monitoring of offenders. The aim was to systematically and extensively map relevant studies on the impact of electronic monitoring in context of criminal sanctions. Monitoring was defined as any electronic monitoring that included methods based on radiofrequency, cellular or GPS-technology and phone lines but not surveillance cameras. By definition,

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<sup>1</sup> Full version in Finnish can be retrieved from: <http://bit.ly/XUbT8u> , for more information please contact Finland's National Representatives.

the search was targeted at studies that evaluated the impact of monitoring of prisoners, detainees or offenders that were subjected to electronic monitoring as an alternative to some other sanction. The studies had to be officially published original studies (not reviews), including working papers.

The studies were retrieved from selected electronic databases (EBSCOhost Academic Search Complete, EBSCOhost SocINDEX, Ingenta Connect, ISI Web of Knowledge, NCJRS and Google Scholar) with predefined search terms and conditions in three steps. First, we conducted the search from every database and compiled basic information of all studies. Second, we ruled out studies that by title or abstract clearly did not evaluate electronic monitoring of offenders. Third, we selected studies that matched the definition of electronic monitoring of offenders in this study. The search resulted in 190 studies in the second phase and 31 studies that matched our definition.

The studies were classified by their stated function or aim of the program in question. Thus, we classified the studies in the following groups: 1) EM as a stand-alone sanction, 2) EM in monitoring probation, 3) EM in monitoring an early release from prison, 4) EM in monitoring parole, 5) EM as a part of a pre-trial program, 6) comparison between different methods of EM, and 7) studies that did not easily fit in the above categories. The so called Maryland Scale for Scientific Methods (MSSM) was applied in evaluating the strength of evidence. In reviewing each study, we focused specifically on whether the outcome variable was measured during or after the sanction, what measure was selected as the outcome variable (sentence, breaching of the conditions of the program or arrest), the comparability of groups in the study and the crimes the subjects in each population had been found guilty of.

In accordance with the existing literature, we found that the evidence concerning the effects of electronic monitoring has remained relatively uncertain considering its widespread use. In the light of the evidence, it can be argued with a relatively high certainty that electronic monitoring decreases technical violations (rule-breaking, absconding as well as new crimes) during the monitored period when compared to groups that are not being monitored electronically but serve in otherwise similar condition. There was little or no indication that adding electronic monitoring increased technical violations due to the easier detection of violations. The studies reviewed suggested that electronic monitoring has different effects conditional on the type of offence but suppresses rule breaking nevertheless.

The studies found evidence that electronic monitoring might affect offenders guilty of violent, sexual, drug or property crimes in a different way. However, studies were conflicting in which types of criminality were deemed more affected. Some studies found evidence that early release from prison with EM might decrease recidivism after the sentence. The studies concluded with a fairly high certainty that early release from prison did at least not increase recidivism and thus might bring about cost-savings. The best evidence in favour of early release was found in Sweden, which might at least partly be due to the relatively extensive availability of social services in Sweden. In regard to the Finnish context, in which this review was made, this result is therefore encouraging.

Other studies found that programs that included substance abuse treatment or cognitive therapy might have decreased recidivism after the program. It was suggested that the effect was due to increased program completion rates in the EM group, which in turn affected the outcomes. Thus, electronic monitoring might increase program completion rates by inducing the offenders to stay in the program, and successful completion of the program then reduces recidivism. However, at this point, the question warrants more research. We suggest that future studies should be more explicit in isolating the effect of any therapy from the effect of electronic monitoring. Finally, some studies suggested that electronically monitored home confinement reduced recidivism after the sanction was completed when compared to imprisonment or serving the sentence in a community service.

The rationale here was that offenders serving their sentence home had changes to work and study and to keep their personal contacts, especially family, intact. It should be noted, however, that there are obvious restrictions to who can enter such an arrangement. For example, one often needs to live substance-free and have a stable daily schedule. Thus, persons entering such arrangements are often considered lower risk. It is worth a discussion whether we can actually see notable improvements among those who would have in most cases fared somewhat well irrespective of whether they served their sentence in home confinement or prison. The studies did suggest, however, that those serving their sentence home fared better especially by measures of socioeconomic variables. We conclude that electronic monitoring reduces technical violations when applied to offenders placed on probation. However, some studies found less compliance among those with drug-problems or those convicted of sexual or violent offences. Also, electronic monitoring might have potential in reducing recidivism if applied to early release from prison, especially in lower risk populations. Also worth mentioning is the suggestion that electronic monitoring enhances therapy completion rates. Few studies found that electronic monitoring had any negative consequences. However, net-widening remains a potential issue, as widening the use of electronic monitoring to those not previously under surveillance could curb efforts to less punitive approach or to reduce costs of the correctional system. Nevertheless, if net-widening is avoided, current evidence indicates that electronic monitoring has rehabilitative as well as cost-reducing potential.