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# CORRECTIONAL SERVICE CANADA

CHANGING LIVES. PROTECTING CANADIANS.



## RESEARCH REPORT

### Implementation of the Electronic Monitoring Research Pilot

2018 N° R-419

Ce rapport est également disponible en français. Pour en obtenir un exemplaire, veuillez vous adresser à la Direction de la recherche, Service correctionnel du Canada, 340, avenue Laurier Ouest, Ottawa (Ontario) K1A 0P9.

This report is also available in French. Should additional copies be required, they can be obtained from the Research Branch, Correctional Service of Canada, 340 Laurier Ave. West, Ottawa, Ontario K1A 0P9.



**Implementation of the Electronic Monitoring Research Pilot**

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## Executive Summary

**Key words:** *electronic monitoring, technology, community supervision, community corrections.*

The Correctional Service of Canada is conducting a national Electronic Monitoring (EM) Research Pilot to examine its effectiveness in promoting positive community outcomes for federal offenders while maintaining public safety. This report focuses on the operational aspects of EM and its contribution to the decision-making processes of Parole Officers, an area that has not received much attention.

As of March 31, 2017, there were 353 EM supervision periods: 104 active, 102 successfully completed, and 147 terminated early. The device was worn for an average of 116 days for offenders who had successfully completed EM and 61 days for those who were removed early. Offenders are being removed from EM once case management staff are satisfied with the offenders' behaviour in the community. The number of alerts generated was examined to determine the nature and types of alerts received. Overall, there were more general, global alerts generated (e.g., equipment/battery related) than specific alerts related to an offender's conditions.

While EM programs have often focused primarily on monitoring low-risk offenders, the referral criteria for the research pilot was restricted to moderate and high risk offenders in an effort to prevent "net-widening." The vast majority of offenders met the referral criteria established for the pilot. In the few cases where offenders were exempted from the eligibility requirements, there were case specific considerations that warranted their inclusion. Staff with experience in EM ( $N = 221$ ) had the opportunity to provide feedback on the pilot and most of the respondents had positive views of the referral criteria for the research pilot.

A total of 294 EM participants who had ever been active on EM were compared to a control group of 294 offenders matched on demographic characteristics (e.g., gender, Indigenous status), offence and risk information (e.g., sex offender status, Reintegration Potential), and release characteristics (e.g., region of supervision, supervision type, special conditions, residency).

As one part of the overall community strategy, EM did not appear to contribute to decisions related to revocations or residency as the groups were similar in the percentage of revocations and the length of residency period. Some differences were observed in the suspension outcomes, but none that reached significance. While the percentage of suspensions did not differ between groups, EM participants were more likely to be suspended due to protection of society and to prevent a breach of conditions, versus due to a breach of conditions in the control group. EM participants also had a slightly higher rate of suspensions that were cancelled, withdrawn, or expired, while the control group had a higher rate of suspensions that were issued or executed.

The findings of this study suggest that EM is being utilized by Parole Officers as a discretionary tool to monitor supervision conditions and may contribute to decision making in the area of suspensions but not revocations of release or residency. However, none of the differences between groups reached significance and should be interpreted with caution. Future research will further examine the community supervision outcomes of EM Participants in more depth.





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## Introduction

Electronic monitoring (EM) technology has been around since the 1960s, but it was not until the 21<sup>st</sup> century that EM began to be explored in the Canadian federal correctional system (McDonald, 2014). There are four main reasons that EM was adopted in Canada: (a) to reduce overcrowding within the prison system, (b) to reduce expenditures on incarcerations, (c) for rehabilitation and reintegration purposes, and (d) to maintain and improve security and public safety (Bonta, Wallace-Capretta, & Rooney, 2000; Bottos, 2007; John Howard Society, 2000; McDonald, 2015). In 2008, the Correctional Service of Canada (CSC) implemented a pilot project of EM, with a focus on testing the capacity of CSC to manage information received through Global Positioning System (GPS) technology. At that time, policy frameworks and response protocols were developed and future needs and requirements were identified for a larger scale, national EM program. However, participation in the pilot project was voluntary for offenders, thus limiting participation and the sample size available for evaluation. Furthermore, an examination of the effectiveness and efficiency of EM was beyond the project's scope.

The *Safe Streets and Community Act* was passed in 2012, granting CSC the authority to require offenders to wear an EM device (MacDonald, 2014). Specifically, the CCRA states:

*57.1 (1) The Service may demand that an offender wear a monitoring device in order to monitor their compliance with a condition of a temporary absence, work release, parole, statutory release or long-term supervision that restricts their access to a person or a geographical area or requires them to be in a geographical area.*

*(2) An offender who is required to wear a monitoring device is to be given reasonable opportunities to make representations to the prescribed official in relation to the duration of the requirement.*

As a result of the Government's response in 2013 to the Standing Committee on Public Safety and National Security (SECU) report entitled "A Study of Electronic Monitoring in the Correctional and Immigration Settings", CSC implemented a second EM Research Pilot in the summer of 2015.

The legislative changes and commitment by the Government to do additional research allowed CSC to undertake the current pilot project of larger scope; a national EM Research Pilot to examine the effectiveness of EM in promoting positive community outcomes for federal offenders while maintaining public safety. The research component of the pilot aims to increase CSC's understanding of EM's possible effects on offenders, staff, and stakeholders, as well as on community supervision practices and public safety. This report focuses on the operational aspects of the project and EM's contribution to the decision-making processes of correctional staff in regards to suspensions and revocations.

### **Impact of EM on Decision-Making Processes**

In recent years, many EM studies have included an analysis of the impact of EM on correctional staff (Bales et al., 2010; Baumer, Newby, LaMade, & Seymour, 2008; Hucklesby, 2011). The literature has examined staff perceptions of the effectiveness of EM to enhance offender supervision, and increase accountability and compliance (Baumer et al., 2008; Bales et al., 2010). However, there has been less research conducted on the impact of EM on the decision-making processes of correctional staff, particularly in regards to suspensions and revocations of conditional releases. Within this more restrictive field of research, the impact on staff decision-making has generally been positive. For example, Brown, McCabe, and Wellford (2007) discussed how switching from Radio Frequency (RF) technology to GPS technology resulted in a decrease in the amount of arrest warrants issued by the Texas Department of Criminal Justice. Through the use of GPS, Brown and colleagues (2007) argued that monitoring agencies have "additional information... at their disposal during alert/violation investigations that result in more alerts being cleared upon analysis, and therefore less [arrest] warrants being issued." (p. 31).

Within the Canadian context, recommendations and decisions relating to suspensions and revocations of offenders' conditional releases are made by CSC community parole staff and the Parole Board of Canada (PBC). The PBC or a person designated by the PBC (e.g., Parole Officer Supervisor, Duty Officer) are allowed to suspend offenders' conditional release and temporarily remove them from the community until a decision is made. CSC community parole staff can make the decision to either cancel the suspension or refer the case to the PBC. In that case, Board members will decide whether to cancel the suspension or revoke conditional release. In the initial CSC EM Pilot Project, Olotu, Beaupre, & Verbrugge (2009) found that the majority of CSC staff

participants (88%,  $n = 33$ ) reported that the availability of EM had a positive impact on decision-making processes in relation to suspensions and revocations. Additionally, Olotu and colleagues (2009) found that the majority of CSC staff participants reported that EM assisted with decision-making (85%,  $n = 33$ ) and enabled CSC staff to more effectively address technical violations (91%,  $n = 33$ ). However, due to the small number of participants within the EM Pilot Project, more research is needed to explore the impact of EM on CSC and PBC staff decision-making. This report will address this gap in the research by examining Parole Officers (POs) and PBC Board members' perceptions of whether the availability of EM influences decisions to suspend or revoke an offender's conditional release.

### **Eligibility Requirements of EM Programs**

Traditionally, EM programs in Canada and internationally have focused primarily on monitoring low-risk<sup>1</sup> offenders (Bonta et al., 2000; Baumer et al., 1990; Bourn, 2006; Courtright, Berg, & Mutchnick, 1997). Subsequently, EM programs have been criticised for having a “net-widening” effect in that offenders who otherwise would have received community sanctions are instead being more intensely supervised. In an effort to reduce the potential for net-widening effects, studies have recommended that the eligibility requirements for GPS EM programs become more stringent and more focused on moderate- to high-risk offenders (Baumer et al., 2008; Blackwell, Payne, & Prevost, 2011; ICCA, 2014; OPPAGA, 2005).

Following this trend, a number of recent empirical studies have examined the impact of EM on community outcomes for moderate- to high-risk offenders. Studies conducted in California, Florida, and Indiana<sup>2</sup> found that EM can be an effective tool to reduce recidivism amongst moderate- to high-risk offenders (Bales et al, 2010; Baumer et al., 2008; Gies et al, 2012; Gies et al, 2013, Padgett, Bales, & Blomberg, 2006). For example, Bales and colleagues (2010) found that there was a 31% reduction in risk of failure under community supervision for medium- to high-risk offenders on EM compared to medium- to high-risk offenders being supervised in the community without EM. Additionally, Bales et al., (2010) and Baumer et al., (2008) found that probation officers were more supportive of the use of EM for moderate- to high-risk offenders compared to low-risk offenders.

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<sup>1</sup> The definition of low/medium/high risk varies across studies.

<sup>2</sup> The definition of high-risk and “sexual offender” varied across the studies. For example, some of the studies list “failure to register as a sex offender” as a sexual offence (Gies et al., 2012).

A review of the extant academic literature on the subject reveals that there is a lack of Canadian studies examining the appropriateness and effectiveness of EM for moderate to high risk offenders. This report examines the number and types of federal offenders being referred to EM in Canada and the CSC staff perceptions of the eligibility requirements for the current EM Research Pilot.

### **Impact of EM Technology on Community Supervision**

The use of EM technology leads to a substantial increase in the amount of supervision information received by parole agencies (Armstrong & Freeman, 2011; Gies et al, 2012). This increase in information has the potential to influence offender behaviour by creating a digital footprint of their whereabouts. Despite these advantages, concerns regarding the technological issues associated with GPS technology are often cited. If an offender violates their geographic special condition and/or curfew being monitored, an alert will be triggered, which signals that potential action by the monitoring agency is required. Some studies found that the GPS technology resulted in a number of *false alerts*, which increased parole staff workload and disrupted the supervision of offenders (Armstrong & Freeman, 2011; Bottos, 2007; Brown et al, 2007, DeMichele & Payne, 2009). On the other hand, a number of studies reported limited technological issues (Baumer et al., 2008, p.11; Bourn, 2006; Gies et al., 2013).

Drift is an example of the technological issues that can arise due to the nature of GPS technology. GPS is reliant on cellular technology and the availability and proximity of satellites for proper functioning, all of which can be affected by environmental factors (e.g., differential terrain, inclement weather, and physical obstructions; Armstrong & Freeman, 2011). Drift refers to the phenomenon when the actual position of the GPS device location is different from the estimated location. From an operational perspective, drift is an issue that is easy for agencies to manage with well-trained and experienced staff. When an alert is triggered, it does not necessarily mean that it is an actionable event, nor do alerts automatically result in violations (Brown et al., 2007). The level of response to an alert is dependent on the protocols developed by the monitoring agency and on the circumstances of the alert. For example, an inclusion alert (e.g., an alarm that the offender has exited an inclusion zone during curfew), although deemed to be a priority alert, results in no further action if the monitoring officer assesses the cause of the alert as drift.

Alerts related to breach of conditions are not the only types of alerts that can be

generated. For example, Armstrong and Freeman (2011) categorized alerts into five groups: (a) Area Violation (e.g., exclusion zones), (b) Time Violation (e.g., violating curfew), (c) Equipment Tampering (tampering with the bracelet/anklet and the base unit), (d) Battery Failure (e.g. low/critical/dead battery), and (e) Other Technical Failures (e.g., loss of GPS and/ or cellular coverage). Similarly, Gies et al. (2012) categorized alerts into six groups: (a) Inclusion, (b) Exclusion, (c) Battery, (d) Strap/Device (e.g., an offender breaking off the device), (e) Cell Communication Gap, and (f) No GPS Communication. Some of the research has also categorized alerts based on the significance of the alert. For example, alerts have been categorized into priority (e.g., exclusion/inclusion zones, and equipment tampering) and non-priority (e.g., low battery) alerts (Janetta, Myers, Sexton, Smith, & Whitby, 2007). Similarly, Brown and colleagues (2007) categorized alerts into critical (e.g., inclusion/exclusion zones) versus non-critical (e.g., low battery) alerts. The significance of the alert would determine subsequent action by the agency.

The potential impact of these technological issues on the supervision of offenders remains unclear. Gies et al. (2012) argue that the increase in information regarding offender behaviour in the community is best addressed by integrating a monitoring centre, accompanied by a graduated response system, into the EM program. Monitoring centres reduce the potential impacts of technological issues by reviewing, filtering, and prioritizing alerts before they are provided to the parole agents (Armstrong & Freeman, 2011; Bales et al., 2010; Gies et al., 2012; Martinovic, 2016; Renzema, 2012). For example, Bales et al (2010) found that 57% ( $n = 36$ ) of supervising officers reported that the introduction of a monitoring centre reduced the number of false alerts received by probation officers. In 2008, CSC created a 24-hour National Monitoring Centre (NMC) located in the CSC National Headquarters. One of the services provided by the NMC is to provide monitoring services of federal offenders on EM and general EM support to CSC community parole staff. Using data from the EM monitoring software used by NMC staff, this report will provide a descriptive analysis of the number and type of alerts generated within the current EM Research Pilot period.

### **The Current Report**

Though much of the existing research examines the impact of EM on offenders and staff, there is a limited amount of research on whether the use of EM affects the decision making of Parole Officers. This is an area of significant importance that is addressed within this report. This

report will also contribute to the research on EM within a Canadian context by providing information of operational relevance (e.g., description of offenders enrolled in EM, number and type of alerts, etc.).

The following three research questions will be addressed:

1. Since the implementation of the EM Research Pilot, a) how many offenders have been referred/assigned to EM, b) what is the average length of supervision on EM, and c) what are the common types of alerts generated?
2. What referral criteria are met among offenders who are assigned to EM? Are there decisional factors being used which are not reflected by the selection criteria?
3. Does EM, as one part of the overall community strategy, contribute to correctional staff decision making (i.e., decisions related to suspensions, revocations, and the length of residency periods)?

## Method

### Procedure

**EM implementation and equipment.** The EM Research Pilot is a multi-year, national pilot project conducted by CSC. The project was implemented across the CSC regions (Ontario, Pacific, Prairies, Quebec, and Atlantic) in a phased approach starting in July 2015. All but three federal parole offices (Whitehorse, Yellowknife, Iqaluit – due to lack of cellular coverage) were trained in the use of EM. Staff received a blend of training approaches depending on their role in the EM Research Project. Community Parole Officers (CPOs) received online training, while EM specialists received skill-based classroom training (installation and removal of EM equipment), and NMC staff received specific training for using the EM software and addressing alerts. Within CSC, EM is considered a tool to monitor supervision conditions for offenders released on parole, as opposed to an alternative to incarceration or a residency condition. The decision to utilize EM is left to the discretion of the CPO.

The EM technology used in CSC's current research project is manufactured by a US Company, Satellite Tracking of People (STOP), and provided to CSC through the Canadian vendor, JEMTECH. In total, CSC has access to 300 BLUtag devices that can be used to monitor federal offenders across Canada.

The current research project utilizes hybrid<sup>3</sup> GPS technology to monitor federal offenders with special geographic conditions (curfew and geographic restrictions). Offender monitoring is conducted through BLUtag anklet devices and BLUbox devices. The BLUtag devices use GPS and cellular technology to store and transmit offender location data. The BLUtag devices collect GPS data points at pre-determined intervals and these data are sent via cellular communications to the NMC at another pre-determined interval. Alerts are received and stored by the NMC through the EM software (VeriTracks 11.0 and 2.0). The alerts are then addressed by the NMC according to CSC's monitoring and response protocols.

The BLUbox is an RF device that is installed into the offender's residence to monitor

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<sup>3</sup> Hybrid EM means that the device utilizes both active and passive GPS systems. The EM anklet device collects GPS data every minute and sends this data every 10 minutes to the NMC (active). When cell coverage is unavailable, the BLUtag device continues to collect the GPS data and stores it (for up to 7 days) until the data can be transmitted to the NMC (passive).



curfew conditions. The BLUbox<sup>4</sup> device identifies an offender's presence in their residence by emitting a RF signal, which detects whether the BLUtag device is within the BLUbox's radius. The benefit of the BLUbox device is that it reduces the presence of drift and drain on the BLUtag device when the offender is in their residence.

**Referral criteria.** To be eligible for the EM Research Pilot, an offender must be considered medium/high risk to re-offend. Offender Risk, in this study, is measured by the offender's Reintegration Potential<sup>5</sup> (RP) rating. To be referred to EM, offenders must have a low/medium RP level at time of referral. An offender with high RP can be eligible for EM if they are a men sex offender with a Static-99R score of four or above, or if they are a women sex offender.

To be assigned to EM, an offender must have a parole condition that can be monitored using EM technology. There are two main types of conditions that can be applied to offenders on EM: geographic special conditions and curfews. Geographical special conditions usually refer to areas that the offender is restricted from entering. For example, a sex offender may be restricted from entering any parks, recreation centres, schools, and/or any other place where children are expected to congregate. The areas in which offenders are restricted from entering are often referred to as exclusion zones. Offenders may also be restricted from exiting an inclusion zone (e.g., the city where they live) as a geographic condition. In contrast, when a curfew is imposed, an offender is required to stay within a specified location (also referred to as an inclusion zone) for a given period of time. Usually, curfews occur overnight in the offender's residence.

**Data collection.** Data for the analyses came from three types of sources: (a) various CSC databases including the Offender Management System (OMS) and the EM Research Tracking Database, (b) the EM software, and (c) a Staff Questionnaire.

**CSC databases.** Data for EM participants and control group offenders were extracted from OMS, the automated system used by CSC to store decision-making and offender management data from the beginning of an offender's sentence until the sentence is complete. EM-specific data were stored in the Research Tracking database (managed by the Operational

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<sup>4</sup> However, not all offenders have access to BLUbox devices. For example, an offender without stable housing will most likely not have access to a BLUbox device. Additionally, there can sometimes be a delay in the installation of the BLUbox devices.

<sup>5</sup> For non-Indigenous men offenders, RP is determined by the scores from the Custody Rating Scale, the Revised Statistical Information on Recidivism and the Static Factor Rating. For women offenders and Indigenous offenders, RP is determined by the scores from the Custody Rating Scale, the Static Factor Rating, and the Dynamic Factor Rating (Correctional Service Canada, 2018a).

Research team at CSC), which contained all of the EM offender data regarding referrals, activations, and removals.

**EM software.** The EM software<sup>6</sup> (Veritracks 11.0 and 2.0) is maintained by the NMC and stores information regarding offender GPS location and alerts.

**Staff questionnaire.** CSC staff and PBC Board members were given the opportunity to provide feedback on electronic monitoring by completing an online questionnaire. The questionnaire is composed of 90-items examining staff perceptions of EM in regards to the effectiveness, efficiency, and cost-effectiveness of EM, as well as the impact of EM on staff decision-making and offender's daily lives. The questionnaire consists of five sections: (a) Background (21 items), (b) Electronic monitoring as a supervision tool (18 items), (c) Electronic monitoring and case management (25 items), (d) Impact of EM on daily lives and relationships (9 items), and (e) Cost-effectiveness of electronic monitoring (17 items). Distribution of the staff questionnaire was staggered across the regions. The first questionnaire was launched 10 months after the EM implementation date for each region. A follow-up questionnaire was sent 6 months after the first questionnaire was distributed. The questionnaire was administered using SNAP software and was hosted online through CSC networks. Staff participants provided informed consent by agreeing to a statement prior to filling out the questionnaire.

## **Participants**

**EM participants.** Data for the eligible EM participants were collected between July 27, 2015 and March 31, 2017. During the study period, a total of 442 offenders were referred for EM, representing a total of 512 EM supervision periods. Of the 442 offenders referred, 70.0% (n = 296) of the offenders had ever been active<sup>7</sup> on EM. This group represents the experimental group in the study. The majority (95.9%, n = 284) of offenders who have ever been active on EM were men. Only 4.1% (n = 12) of offenders assigned to EM were women. Of the offenders who have been active on EM, 14.9% (n = 44) identified as Indigenous.

**Staff.** A total of 552 staff completed the staff questionnaire. Of the participants, 221 staff had EM experience within the last six months and were retained for analyses. Of the

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<sup>6</sup> No identifiable offender data is inputted into the VeriTracks Software. Instead, the EM project team has created numerical identifiers that can be used within the system. Access to offender information is subject to regular auditing.

<sup>7</sup> "Ever been active" refers to offenders whose EM status was active, removed, or complete on the data cut-off date (March 31, 2017).

questionnaires that were retained, 56.9% ( $n = 124$ ) of respondents were women, while 43.1% were men ( $n = 94$ ). As shown in Table 1, the majority of respondents were CPOs and Parole Officer Supervisors (POSs). The majority of respondents worked in the Quebec and Ontario regions (see Table 2). For CSC staff, the average length of experience working for CSC was 16.6 years ( $SD = 7.4$ ). For PBC Board members, the average length of experience working as a PBC Board member was 8.9 years ( $SD = 7.4$ ). Of the CPOs and POSs with experience in EM, the majority reported that less than 5% of their caseload was currently being supervised using EM.

Table 1

*Current Positions of Staff with EM Experience*

Position ( $N = 221$ )	%	$n$
Community Parole Officer	43.4	(96)
Parole Officer Supervisor	26.7	(59)
Other CSC Staff	13.6	(30)
National Monitoring Centre Staff	8.6	(19)
Parole Board of Canada Board Members	7.7	(17)

*Note.* Other CSC staff includes positions such as Aboriginal Community Liaison Officer, Area Director, District Director, Community Program Manager, Correctional Program Facilitator/Officer, Reintegration Officer and Employment Coordinator.

Table 2

*Regions of Staff with EM Experience*

Region ( $N = 221$ )	%	$n$
Atlantic	7.4	(15)
Quebec	20.8	(46)
Ontario	34.4	(76)
Prairie	14.0	(31)
Pacific	14.0	(31)
NHQ	10.0	(22)

## Analytical Approach

The study consists of a mixed-method approach of analysis. The quantitative analyses conducted in this study are primarily descriptive, although some comparative analyses between the EM offender group and the matched control group are presented. Thematic coding techniques were utilized for the qualitative portions of the study. The following sections provide more detailed descriptions of the methods for each section of the report.

**Matching.** A matched control group of offenders was created to provide a comparison to similar offenders in the community that were not monitored using EM. To be included as part of the control group, non-EM offenders had to meet the eligibility requirements discussed above and had to have been released within the study period. Furthermore, casework records were used to ensure that offenders that had participated in the previous EM Pilot Project were not included within the control group. The control group was established through Coarsened Exact Matching (CEM) using Stata software. Blackwell and colleagues (2010) describe CEM as a:

Monotonic imbalance reducing matching method...[that] strictly bounds through ex ante user choice both the degree of model dependence and the average treatment effect estimation error, eliminates the need for a separate procedure to restrict data to a common empirical support, meets the congruence principle, is robust to measurement error, works well with multiple imputation methods for missing data, can be completely automated, and is extremely fast computationally even with very large data sets. (p.1)

To begin the CEM process, EM participants and non-EM offenders were categorized into datasets based on their gender, Indigenous status, and sex offender status.<sup>8</sup> Within each offender category, EM and non-EM offenders were matched based on the following variables: (a) region of supervision, (b) Reintegration Potential level, (c) residency condition imposed, (d) supervision type, and (e) special conditions imposed. The strictest matching method was used to match the majority of EM and non-EM offenders. In this initial stage of matching, 92% of EM participants' profiles were matched to a comparable non-EM offender profile. For the remaining unmatched EM participants, a more generous<sup>9</sup> matching process was used in order to reach a 100%

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<sup>8</sup> More specifically, offenders were subset into the following datasets: (a) Indigenous men, non-sex offenders, (b) Indigenous men, sex offenders with low/moderate Reintegration Potential, (c) Indigenous men, sex offenders with high Reintegration Potential, (d) Indigenous women, (e) Non-Indigenous men, non-sex offenders, (f) Non-Indigenous men, sex offenders with low/moderate Reintegration Potential, (g) Non-Indigenous men, sex offenders with high Reintegration Potential, (h) Non-Indigenous women.

<sup>9</sup> In subsequent rounds of matching, the variables "special conditions imposed" and "supervision type" were not required, although all offenders in the control group had geographic restriction and/or curfew conditions.

matching rate.

**Eligibility requirements.** Data regarding the eligibility requirements were extracted from the EM Research Tracking Database. Descriptive analyses were used to examine the number of offenders referred/assigned to EM, the number of offenders that met the eligibility requirements (special conditions, low/medium Reintegration Potential, men sex offenders with Static-99R of 4+ and women sex offenders), and the number of offenders that were accepted into EM despite not meeting the eligibility requirements. A qualitative analysis of case management considerations upon referral was also conducted to examine potential considerations that are not included in the eligibility requirements. Data for this analysis were taken from the completed EM referral forms (submitted by POs). Qualitative and quantitative data from the staff questionnaire were analyzed to examine staff perceptions of the eligibility requirements.

**Alerts.** For this study, alert data were extracted from the EM software and broken down at the offender level. The alerts are categorized into General (global alerts) and Specific Alerts (related to conditions). General alerts are further categorized into the following categories, which is consistent with Armstrong & Freeman (2011):

- Tampering – Master tamper, BLUbox light tamper
- Interference – Shielding possible, Jamming possible
- Equipment Related – BLUbox Movement and/or Power Loss
- Battery Failure – Low battery, Critical battery, Dead battery
- Other Technical Failures – Message gap, No GPS

Specific alerts are further categorized into the following categories:

- Area Violations – Exclusion alarm, Global exclusion alarm, Inclusion alarm (supervision zone related)
- Time Violations – BluBox curfew late arrive, BluBox curfew left early, Inclusion alarm (curfew related)

A full definition of alerts and categorization is available in Appendix A. Descriptive statistics were used to illustrate the type and number of alerts per offender that occurred from the implementation of the EM Research Pilot until March 31<sup>st</sup>, 2017.

**Suspensions and revocations.** Data regarding participating offender's suspensions and revocations were extracted from OMS. All suspension warrants and revocations for EM participants and the control group during the study period were included in this study. Both

quantitative and qualitative methods were used to examine suspensions and revocations amongst EM participants and the control group. Descriptive analyses were used to examine the frequency of suspensions and revocations amongst EM participants. Additionally, descriptive analyses were used to examine staff perceptions of the impact of EM on decisions to suspend or revoke an offender's release using data from the staff questionnaire.

EM participants and control group offenders were compared in the frequency of and reasons for suspension, as well as the outcome of those suspensions. Possible outcomes include issued, executed or withdrawn warrants of suspension, as well as cancelled or expired suspensions. For offenders with cancelled or withdrawn suspensions,<sup>10</sup> a manual review of their documentation in OMS was conducted to inform a qualitative analysis of the suspensions. Similar qualitative analyses were completed for revocations amongst EM participants and control group offenders. The coding manual for cancelled and withdrawn suspensions can be found in Appendix B and the coding manual for revocations can be found in Appendix C. After multiple reviews of the offenders' files were complete, inductive coding was used to extract themes from the CSC and PBC suspension/revocation documentation. Since this analysis was qualitative in nature, it can be difficult to compare findings amongst the EM participants and the control group offenders. To address this issue, the themes were ranked according to the relative frequency of each theme within each offender group. This provided some opportunity to observe potential differences in the rationales for revocations and the cancellation/withdrawal of suspensions amongst EM participants and control group offenders.

**Residency conditions.** The residency conditions data were extracted from OMS on a bi-weekly basis before being collated into a single database. Comparative analyses were used to examine the differences in rates of imposition and the length of residency conditions amongst EM participants and the matched control group. Staff perceptions of impact of EM on decisions to impose, modify, and extend residency conditions were explored using data from the staff questionnaire.

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<sup>10</sup> A person with designated authority can withdraw the warrant if the warrant has not been executed (Correctional Service Canada, 2018b). If the PBC directed the suspension, the PBC must approve any withdrawal. A suspension can be cancelled under the following circumstances: (a) new information modifies the risk assessment, (b) new information modifies the reasons for the suspension, (c) a new release plan or new conditions, that are consistent with the offender's Correctional Plan, which reduce the risk to the community to an acceptable level, or (d) loss of jurisdiction due to late referral. If a charge is laid pursuant to section 753.3 of the *Criminal Code* for an offender subject to an LTSO, the warrant of suspension, apprehension and recommitment expires (Correctional Service Canada, 2018b).

## Results

### Description of EM Research Pilot

As of March 31, 2017, there were 104 active EM supervision periods<sup>11</sup>, 102 successfully completed EM supervision periods, and 147 EM supervision periods terminated early due to the offender being removed prior to the end of their term. As of this date, 82 referrals were still up for consideration for EM, 16 referrals were not granted, and 61 referrals were withdrawn. Overall, this represents 512 EM supervision periods, and 442 distinct offenders. The number of EM supervision periods per offender ranged from one to four. As can be seen in Table 3, there is regional variation in the use of EM, with the Ontario region utilizing EM most frequently. This is not surprising given that EM was initially piloted in Ontario and EM was implemented there earlier in the current research pilot.

Table 3

#### *Status of Cases by Region*

Status	Region					Total
	Atlantic	Ontario	Pacific	Prairie	Quebec	
Active	4	41	21	5	33	104
Complete	8	51	10	7	26	102
Removed	9	70	17	19	32	147
Referred	3	32	13	14	20	82
Not Granted	1	9	0	1	5	16
Withdrawn	6	20	9	11	15	61
Total	31	223	70	57	131	512

As previously mentioned, there were a total of 16 referrals that were not granted. Most (87.5%) of these referrals were not granted because the offender did not meet the strict eligibility requirement to participate in the EM Research Project at the time of referral. Other reasons include that the offender was being deported (6.3%) or that there was insufficient cell coverage

<sup>11</sup> A supervision period refers to a defined period of time in which an offender is supervised using EM.

to support EM technology (6.3%). There were a total of 61 withdrawn EM referrals. As shown in Table 4, most offenders had their referral withdrawn due to the imposition of a residency condition (31.1%), a reassessment of risk (14.8%), no action on decision (11.5%), or a change in release decision (9.8%).

Table 4

*Reasons for Withdrawn Applications for EM*

Withdrawal Reason	%	(n)
Residency Condition Imposed	31.1	(19)
Reassessment of Risk	14.8	(9)
No action on Decision	11.5	(7)
Change in Release Destination	9.8	(6)
WED Reached	4.9	(3)
Deportation	4.9	(3)
Offender Refusal	4.9	(3)
Change in Release Date	3.3	(2)
Suspension	3.3	(2)
Release Denied	3.3	(2)
Withdrew Release Application	1.6	(1)
EM not supported by CRF	1.6	(1)
Cell Coverage Issues	1.6	(1)
Medical Reasons	1.6	(1)
No special geographic condition/curfew	1.6	(1)
Total	100	(61)

Figure 1 demonstrates the full sample of the EM Research Pilot, as well as the other samples that will be referenced in the following results.



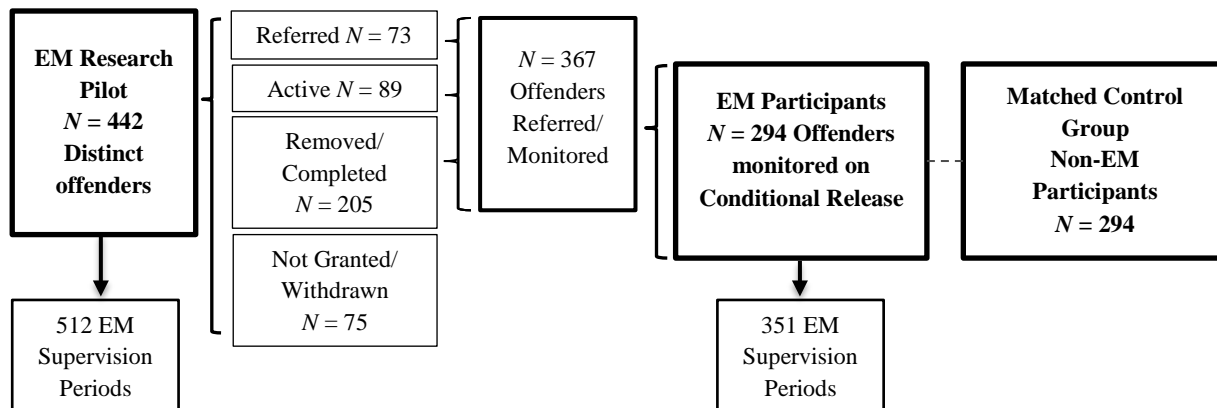


Figure 1. Overview of various samples within the EM Research Pilot.

## Referral Criteria

**Referral criteria met by sample.** Of the 367 distinct offenders that were referred to or monitored using EM (excluding not granted or withdrawn referrals), most had either a geographic restriction (38.7%) or a curfew (43.6%). Examples of geographic restriction conditions included avoiding certain places (e.g., schools, parks, playgrounds, bars, gambling establishments) and remaining in certain places (e.g., not to leave a certain area such as a city or area of a city). A further 17.7% of offenders had both conditions being monitored.

The vast majority of offenders met the referral criteria established for the pilot. In 96.5% of cases, the offender was eligible for EM as they had a low or medium Reintegration Potential. A further 0.8% of offenders met the eligibility criteria as they were men sex offenders with a high Reintegration Potential and a Static-99 score greater than four. There were no offenders in the sample that were included based on the third eligibility criteria: women sex offenders with a high Reintegration Potential. Ten<sup>12</sup> offenders (2.7%) did not meet the strict eligibility requirements for the EM research project. There were a variety of case specific considerations that explain why these offenders were exempted from the eligibility requirements. For example, some of the offenders' risks were being reconsidered at the time of the referral. Emerging concerns around case dynamics was another reason that offenders were exempted from the eligibility requirements. Additionally, EM was required for use at some community residential

<sup>12</sup> Three of these offenders were sex offenders with a Static-99R score of less than 4. Seven of these offenders were non-sex offenders.

facilities in cases where the offender was a diagnosed pedophile.

**Other decisional factors.** Upon referral, Parole Officers are provided with the opportunity to include case management considerations (CMCs) that they feel should be taken into account during the EM referral process and may inform offenders’ eligibility for EM. All of the distinct offenders referred to the EM Research Pilot were included in this analysis ( $n = 442$ ); however, not all POs submitted CMCs upon referral<sup>13</sup>. The CMCs do not necessarily prevent or enable participation in the EM Research Project, but they are still useful in demonstrating what factors POs consider important when referring offenders to EM. As demonstrated in Table 5, the most often mentioned CMCs in the referral documents were mental health concerns ( $n = 48$ ), gang affiliation ( $n = 35$ ), lack of community support ( $n = 30$ ), and history of failure at release ( $n = 21$ ).

Table 5  
*Case Management Considerations By Offender*

Case Management Considerations	Number of Times Mentioned
Mental Health Concerns	48
Gang Affiliation	35
Lack of Positive Community Support	30
History of Failure at Release	21
Substance Abuse	19
History of Violence	16
Health Concerns	11
Employment Concerns	9

**Perceptions of eligibility criteria.** CSC staff with experience in EM were questioned regarding their perceptions of the eligibility criteria for EM. Most staff respondents agreed in general that the referral criteria for the research pilot were appropriate (78.4%). The majority of staff agreed that EM was appropriate for offenders with a geographic condition (93.6%), for

<sup>13</sup> CMCs are not mutually exclusive and are accumulated across EM terms. The lack of CMCs does not mean that the offender does not also have these considerations. Rather it demonstrates that the PO did not feel that it needed to be mentioned for that offender upon referral.

moderate risk offenders (68.0%), and for high risk offenders (91.7%). A minority of the staff felt that there were factors used to support EM referrals and assignments that were not reflected in the eligibility criteria (18.0%).

Respondents were given the opportunity to comment on potential decisional factors that were not reflected by the current EM eligibility requirements. Of the 221 staff respondents with experience in EM, 23 provided their feedback. Some of the decisional factors that staff mentioned include: offender compliance/non-compliance, gang affiliation, case specific factors and challenges, parole officer discretion and professional knowledge, history of failure at release, victim concerns, and mental health factors. Some staff respondents indicated that EM eligibility should be expanded to monitor a greater number of offenders than those that are currently eligible. However, many of these suggestions were outside of the technological capabilities of EM, which may suggest a need for further education about the capacity of EM technology.

### **Utilization of EM**

**Description of sample.** For the remainder of the report, the analyses will focus solely on distinct offenders who were ever active on EM that were on conditional release. As of March 31, 2017, there were 88 offenders active on EM<sup>14</sup>, 90 offenders who had successfully completed their EM term and 116 offenders who were removed prior to the end of their term. This represents the 294 offenders in the EM Participants group, comprising 351 supervision periods. Of the 116 offenders removed from EM prior to the end of their first EM term, 52 offenders were subsequently referred for at least one additional period of EM.

**Length of supervision.** The average duration of EM requested was 151.3 days ( $SD = 64.0$ ) with a range from 11 to 540 days. Slightly more than half (61.6%) had a duration requested over 180 days, while 26% had a duration requested between 90 and 180 days, and 12.3% had a duration requested less than 90 days. CPOs are able to request a maximum duration of 180 days; therefore, the higher durations represent situations in which the duration was extended while on EM. The device was worn for a mean of 115.9 days ( $SD = 77.8$ ) with a range from 10 to 367 days for offenders who had successfully completed EM and 60.8 days ( $SD = 60.3$ ) with a range from 1 to 363 for those who were removed from EM prior to the end of their EM supervision period. The fact that on average offenders are wearing the EM device for less time than

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<sup>14</sup> There were two additional offenders who were active on EM but excluded from the sample. These offenders had EM terms associated with a temporary absence and a work release, therefore they were not included in the matched dataset as they were not on conditional release.

requested may suggest that offenders are being removed once case management staff were satisfied with their behaviour in the community or that the offender demonstrated compliance with the condition that was being monitored.

Of the offenders that successfully completed their EM supervision period, 51 offenders were removed from EM upon successful completion of their full supervision period, 28 offenders were removed because they reached their Warrant Expiry Date, and 14 offenders were removed due to a decision from their case management team. Offenders who were removed from EM prior to the end of their EM supervision period were typically suspended ( $n = 111$ ), or in very rare cases, died ( $n = 2$ ).

**Number and types of alerts.** Table 6 presents that nature and types of alerts observed in the EM Research Pilot from the implementation of the pilot to March 31, 2017. Overall, there were more general, global alerts generated than specific alerts related to an offender's conditions. Equipment related alerts were the most frequent alerts issued per offender ( $M = 100.9$ ,  $SD = 248.4$ ). A large number of the *BLUbox Movement* alerts would be expected because the RF unit (BLUbox) is quite sensitive to movement. The wide range in number of alerts reflects both the varying length of supervision on EM as well as the variability in equipment related issues. In some cases, the RF unit was installed improperly by being placed on an object, such as a fridge or speaker, that is prone to movement or vibration and when turned on causes movement of the RF unit. The location of the offender's residence (e.g., near train tracks) could also lead to more of these alerts. The other equipment related alerts related to the RF unit being unplugged (*BLUbox Power Loss*, *BLUbox Power Loss/Movement*) occurred but were much less common per offender. These alerts could be caused unintentionally for a number of reasons including power outages, the offender or a family member accidentally unplugging the RF unit, and switching off an outlet or power bar that the RF unit was plugged into.

Other technical alerts were also a frequent type of general alert issued ( $M = 59.7$ ,  $SD = 97.8$ ). A common alert issued was the *No GPS* alerts, which can be caused by offender movement into impaired GPS areas, such as indoors, underground (e.g., subway, parking garage) or areas where satellite systems are temporarily unavailable (e.g., urban canyons). *Message Gap* and *BLUbox Message Gap* alerts were other technical alerts also observed during the study period, and these were generated when an offender's EM device was unable to communicate with the system for a period of two hours (e.g., if the offender is in an area without cellular

coverage). Given that offenders were expected to work and participate in programs that may require them to travel in areas with limited GPS availability, these alerts would be expected in a number of cases. None of these alerts appeared to have been caused by the offender intentionally trying to avoid monitoring or to go undetected.

Table 6

*Nature of and Types of Alerts Per Offender*

Nature of Alert	Type of Alert	Alert	Total <i>n</i> Alerts	<i>M</i> Alerts/Offender	<i>SD</i>	
<b>Specific</b>	<b>Area Violations</b>	Global Exclusion Alarm	3,365	11.5	57.7	
		Exclusion Alarm	1,849	6.3	24.5	
		Supervision Zone Inclusion Alarm	1,217	4.1	13.4	
	<b>Time Violations</b>	Curfew Inclusion Alarm	4,736	16.1	79.0	
		BLUbox Curfew Left Early	4,029	13.7	92.0	
		BLUbox Curfew Late Arrival	963	3.3	9.8	
	<b>General</b>	<b>Equipment</b>	BLUbox Movement	25,630	87.2	242.7
			BLUbox Power Loss	2,382	8.1	18.7
			BLUbox Power Loss/Movement	1,640	5.6	12.4
		<b>Other Technical</b>	No GPS	13,021	44.3	83.7
Message Gap			3,652	12.4	31.5	
BLUbox Message Gap			889	3.0	8.8	
<b>Battery Failure</b>		Low Battery Alarm	1,389	4.7	9.7	
		Critical Battery	235	.8	2.7	
		Dead Battery	133	.5	1.5	
<b>Tampering</b>		Master Tamper	1,165	4.0	11.9	
		BLUbox Light Tamper	2	.01	.08	
<b>Interference</b>		Shielding Possible	523	1.8	25.3	
		Jamming Possible	16	.05	.4	

Occurring much less frequently per offender were battery failure ( $M = 6.0, SD = 13.2$ ), tampering ( $M = 4.0, SD = 11.9$ ) and interference ( $M = 1.8, SD = 25.3$ ) alerts. As expected, *Low Battery* alerts were the most common battery failure alert. The threshold for a low battery alert was quite low (10 hours of charge still remaining), which is why a large number of these alerts would be expected. An offender may be late at work, for example, and be unable to charge their EM device until returning home. Many of these alerts were unintentional as they could be caused by an offender living in or frequently travelling to areas with limited cell coverage, causing more frequent message gaps and faster battery depletion as it attempts to acquire a cell signal. *Critical Battery* and *Dead Battery* alerts were infrequent, and when issued, were often generated because an offender was at work and unable to charge their EM device until returning home.

Although relatively infrequent, *Master Tamper* alerts were potentially serious as they signaled when there has been an attempt to cut, remove, or otherwise tamper with the strap attached to the EM device, or, when the device itself was cracked or opened. There were three reasons why a *Master Tamper* alert was triggered during the study period: 1) due to procedural issues, 2) due to technical issues, or 3) intentional. There were 850 *Master Tamper* alerts that were the result of procedural issues ( $M = 2.9, SD = 3.2$ , per offender). A number of these alerts were the result of prior installation testing or processes. For example, there could be multiple *Master Tamper* alerts that occur during installation due to the EM Specialist needing to readjust the sizing of the device. Other procedural alerts included removal of the device by the CPO or the police, removal for the inspection of the device, or removal for medical reasons. There were 300 *Master Tamper* alerts that were the result of technical issues ( $M = 1.0, SD = 9.8$ , per offender). Technical issues included installation issues, water-related problems, and devices falling off. In October 2016, a new cutting tool was implemented in an attempt to reduce the number of tampers of a technical nature. The issue was that the strap was being cut on an angle during installation, which enabled water to more easily enter the device when an offender, for example, showered or went swimming. The introduction of water in between the strap and the EM device interfered with the device's fiber optics, which is what is used to detect tampering. This resulted in an alert being triggered despite the fact that no actual tampering had occurred. This cutting tool also aimed to address the issue of devices falling off due to "poor" installations. Lastly, there were 15 instances where the *Master Tamper* was intentional, where the offender intentionally tampered with or removed the device.

Interference alerts including *Jamming Possible* and *Shielding Possible* were very infrequent, and none of these alerts were assessed as intentional in nature. A shielding event can occur when the EM device loses communication with the EM system. When this happens, the device looks for reasons why it is not able to transmit GPS data points. One of the things the EM device does is sense whether or not metal is present to determine if metal could be the result of this loss of communication. This alert was triggered unintentionally during the pilot due to an offender's work environment (e.g. driving large trucks) or an offender's use of a wheelchair. In terms of *Jamming Possible* alerts, although it was possible that the offender was using a jammer<sup>15</sup>, the available evidence suggests that these alerts were unintentional. In some cases, a jammer may have been used in the vicinity of the device, unbeknownst to the offender, and in others the presence of unusual amounts of RF traffic may have confused the signal resulting in an alert being generated despite the absence of a jammer.

Although less likely to occur than general alerts, specific alerts tied to offenders' conditions were still commonly issued. These included violations related to geographical area, as well as time violations related to curfew. *Supervision Zone Inclusion Alarms* occurred 1,217 times ( $M = 4.1$ ,  $SD = 13.4$ ) when an offender exited their supervision zone. *Exclusion Alarms*, on the other hand, occurred 1,849 times ( $M = 6.4$ ,  $SD = 24.5$ ), and were triggered when an offender entered an exclusion zone. A *Global Exclusion Alarm*<sup>16</sup> occurred when the offender entered an exclusion zone identified as a children's area (i.e., school, park, playground). A large number of *Global Exclusion Alarms* were expected ( $M = 11.5$ ,  $SD = 57.7$ ), as offenders travelled for work, programs, or other appointments. Permissions were often granted for an offender to visit a park when accompanied by a staff member, or for travel through or into their exclusion zone (e.g., for an appointment). In fact, almost all of the Area Violations alerts were caused by travel permits. The maintenance of supervision and exclusion zones is quite labour-intensive, and as a result, the zones do not get modified for travel permits for short durations. Thus, an alert was still generated, but was not usually considered a breach. In addition, the way in which some inclusion and exclusion zones are imposed (e.g., remaining within a certain radius from the parole office), may also be difficult for the offender to interpret. In the majority of cases, the offender exited the inclusion zone for less than 1 km. Often assessed as drift or unintentional,

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<sup>15</sup> A Jammer is any device or combination of devices that transmits, emits, or radiates electromagnetic energy and that is designed to cause, causes, or is capable of causing interference or obstruction to radio communication (unless where authorized; Radiocommunication Act, 1985).

<sup>16</sup> Prior to May 2016, the *Global Exclusion Alarm* did not exist and alerts for children's area zones were received as *Exclusion Alarms*.

these alerts resulted from an offender being assigned a large exclusion zone, causing an alert to be triggered when the offender momentarily enters the exclusion zone (e.g. an offender driving by a park on the way to work or to an appointment).

Time Violations were less frequent than Area Violations, with a mean of 17.0 alerts ( $SD = 95.6$ ) issued per offender. *BLUbox Left Early* alerts occurred when an offender left their residence early in the morning, similar to *BLUbox Late Arrival* alerts, when an offender missed their curfew at night. The number of Time Violations alerts are also expected as some offenders received special permission from their CPO to arrive late for a curfew or to leave early for employment reasons. When monitoring a curfew, there is also an acceptable grace period, such as when an offender arrives five minutes late. The alert would be received, but would not be considered a breach of condition.

Time violations also included inclusion alarms. These alerts occurred when an offender exited their supervision zone during curfew hours, while being supervised using the EM device instead of the RF (BLUbox) unit. *Curfew Inclusion Alarms* occurred 4,736 times ( $M = 16.1$ ,  $SD = 78.9$ ). Although these curfew violations appear to be high, they are expected when GPS tracking is used instead of the RF unit, as there is an increased likelihood of drift, showing a different device location than the actual location. RF units were often not installed due to staff safety concerns, the offender living in a shelter, or limited resources at the parole office affecting the installation of the BLUbox.

### **Contribution of EM to Decision Making**

**Description of study groups.** The sample of 294 offenders in the EM group were matched to 294 offenders in the control group. Due to the matching process, the groups were comparable in terms of gender, Indigenous status, sex offender status, region of supervision, Reintegration Potential level, supervision type, special conditions, and residency condition imposed. Comparisons in relevant risk and need factors indicated no significant differences between the two groups (refer to Table 7). At admission to federal custody, the control group offenders had slightly higher levels of accountability and engagement, but more of these offenders also demonstrated responsivity factors. At release, EM participants had lower motivation, but were comparable to control group offenders in terms of static and dynamic risk factors.



Table 7

*Risk and need characteristics of EM participants and control group*

Characteristic	Percentage ( <i>n</i> ) of Offenders		Cramer's <i>V</i>
	EM Participants ( <i>N</i> = 294)	Control Group ( <i>N</i> = 294)	
Accountability (at intake)			.06
Low	27.2 (80)	22.4 (66)	
Moderate	66.3 (195)	71.8 (211)	
High	6.1 (18)	5.8 (17)	
Engagement (at intake)			.05
No	30.3 (89)	27.9 (82)	
Yes	69.4 (204)	72.1 (212)	
Responsivity (at intake)			.05
No	82.3 (242)	76.5 (225)	
Yes	17.3 (51)	23.5 (69)	
Static Factor (at release)			.06
Low	1.7 (5)	3.4 (10)	
Moderate	39.1 (115)	35.7 (105)	
High	58.8 (173)	60.9 (179)	
Dynamic Factor (at release)			.06
Low	2.4 (7)	1.7 (5)	
Moderate	30.6 (90)	32.0 (94)	
High	66.7 (196)	66.3 (195)	
Motivation Level (at release)			.08
Low	27.6 (81)	21.1 (62)	
Moderate	59.2 (174)	62.2 (183)	
High	12.9 (38)	16.7 (49)	

*Note.* None of the measures of association reached significance at the  $p < .05$  level.

To examine whether EM contributed to correctional decision making, the community outcomes of EM participants were compared to the matched control group. Groups were compared in the frequency of and reasons for suspension, as well as the outcome of those suspensions. Further comparisons were made in the frequency of revocations and the length of residency periods.

**Suspensions.** There were no significant differences between the EM participants and the

control group in the percentage of offenders suspended during the study period. There were some differences in the reasons for suspension, but none that reached significance (see Table 8). A suspension may occur (a) when a breach of conditions has occurred, (b) to prevent a breach of conditions, or (c) to protect society (i.e., risk is considered unmanageable in the community). EM participants had fewer suspensions due to a breach of conditions and more suspensions to protect society and to prevent a breach of conditions than the matched control group. This suggests that Parole Officers may be utilizing information obtained through EM to suspend offenders prior to a breach occurring.

Table 8

*Comparison of Suspensions and Reasons for Suspension Between Groups*

	Percentage ( <i>n</i> ) of Offenders	
	EM Participants ( <i>n</i> = 294)	Control Group ( <i>n</i> = 294)
Suspensions	63.9 (190)	60.9 (179)
Breach Term	52.6 (100)	59.8 (107)
Prevent Breach	7.9 (15)	3.9 (7)
Protect Society	38.4 (73)	36.3 (65)
Automatic Suspension	1.1 (2)	- -

*Note.* An automatic suspension occurs when an offender who is on parole or statutory release receives an additional sentence other than a conditional or intermittent sentence.

EM was often utilized as a response to suspensions while offenders are on conditional release. For instance, for the 237 offenders with one EM supervision period, 52 offenders had a suspension prior to their EM start date and 107 offenders had a suspension after their start date. In 23 of the cases where the suspension occurred prior to the offenders' EM start date, EM was applied within one week of the suspension being cancelled or withdrawn. For the 46 offenders with two EM supervision periods, 33 offenders had a suspension prior to the start date of their second EM supervision period, and 26 offenders had a suspension after their second EM start date. of the 33 offenders that had a suspension prior to the start date of their second EM supervision period, 15 had EM applied within one week of the cancellation or withdrawal of the suspension. This indicates that POs are recognizing the value in utilizing EM as a tool to monitor

geographical conditions when a suspension has occurred.

**Suspension outcome.** In terms of suspension outcome, the EM participants had a higher rate of suspensions that were cancelled, withdrawn or expired, while the control group had a higher rate of suspensions there were executed or issued (see Figure 2). There could be a number of explanations for this. The control group had more suspensions due to a breach of conditions, therefore providing clear justification for a revocation of release. EM participants were more often suspended to prevent a breach of conditions or to protect society; consequently, the suspension may have been cancelled or withdrawn if the CPO feels that risk can be managed in the community. However, the differences in suspension outcomes between groups were not statistically significant.

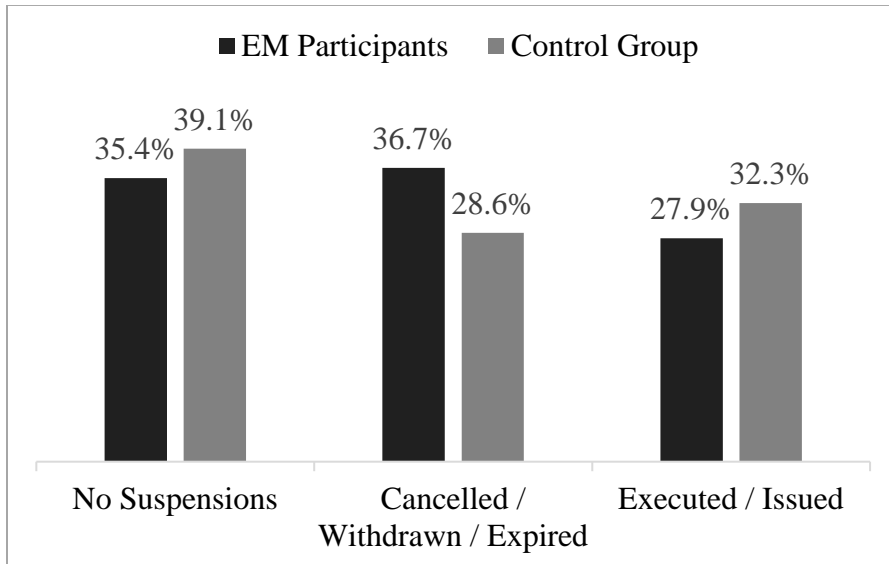


Figure 2. Comparison of Outcomes of Suspensions between Groups

To explore whether EM influenced the outcomes of suspensions, the rationales for inactive suspensions (i.e., cancelled and withdrawn suspensions) were compared between the EM participants and the control group. For the EM participants, only the first cancelled or withdrawn suspension during or after an offender's EM supervision period was considered for the analysis. For the control group, only the first cancelled or withdrawn suspension during the study period was included in the qualitative analysis. A total of 100 inactive suspensions (86 cancelled, 14 withdrawn) were qualitatively coded for the EM participants and 78 (70 cancelled, 8 withdrawn) for the control group. Expired suspensions were not qualitatively coded for

offenders with a Long Term Supervision Order (LTSO) because this meant that a charge had been laid so the rationales for cancelled and withdrawn suspensions were not applicable.

The EM participants and the control group were comparable in that the majority of offenders with inactive suspensions were suspended for breach of condition (50.5% and 55.4%, respectively) or for the protection of society (40.2% and 39.8%, respectively). Similarly, the majority of cancelled and withdrawn suspensions were cancelled locally by CSC for both the EM participants (67.0%) and the control group (73.1%). The remaining 33.0% of EM participants and 26.9% of the control group had their suspensions cancelled by the PBC.

The analysis of the CSC and PBC suspension documentation revealed specific rationales for why offenders' suspensions were being cancelled or withdrawn. The most commonly cited rationales for the cancellation or withdrawal of a suspension in CSC and PBC suspension documentation for both EM participants and matched offenders are presented in Table 9. For both EM participants and control group offenders, the most commonly cited rationale was that a new release plan and community strategy had been developed to manage the offenders' risk. In these cases, the offender was cancelled locally by CSC and new programs and conditions were explicitly recommended by CSC to manage risk.

EM participants and control group offenders mostly had similar rankings of rationales for the cancellation or withdrawal of a suspension. However, EM participants and control group offenders did differ in regards to the frequency that the rationale 'new conditions were imposed by the PBC' was referenced. This was identified as the third most frequently cited rationale for the cancellation/withdrawal of a suspension for EM participants, whereas this theme was the sixth most frequently cited rationale for control group offenders.

The suspension documentation for EM participants was also examined to determine whether EM was mentioned in the decision-making process and in what context it was mentioned. EM was mentioned in the reason for cancellation or withdrawal in 48 cases (48.5%). In the majority of cases, EM was mentioned in the suspension documentation as part of offenders' post-cancellation release plan and supervision strategy (e.g., the continued use of EM). For other EM participants, EM was used as a means to corroborate their story, resulting in their suspension being cancelled, and in one case, EM had been used previously as an alternative to suspension. Interestingly, seven offenders had their suspension cancelled or withdrawn because technical issues with the EM technology caused their breach of condition.

Table 9

*Reasons for Cancelled/Withdrawn Suspensions from CSC/PBC Documentation*

Themes	EM Participants ( <i>n</i> )	Ranking	Control Group ( <i>n</i> )	Ranking
Risk was deemed manageable with added management				
New release plan and community Strategy	43	#1	36	#1
New conditions were imposed by PBC	30	#3	12	#6
Risk was deemed manageable in the community				
No evidence of actual breach of conditions	40	#2	25	#2
No evidence of a return to criminality/Risk has not become undue	28	#4	20	#3
Positive attitude and willingness to engage with CP and CMT	20	#5	15	#4
Positive history at release	18	#6	13	#5
Positive community supports	10	#7	5	#9
Offender took responsibility for his actions	9	#8	10	#7
Current release plan seen as adequate to manage risk	4	#9	6	#8
With an approaching WED, it was deemed more beneficial that the offender stay in the community to improve reintegration	3	#10	1	#11
Suspension was seen as an adequate intervention	0	#12	0	#12
Other				
Reached WED	1	#11	2	#10

*Note.* The rationales for the cancellation/withdrawal of a suspension were not mutually exclusive. Multiple rationales could be included in an offender's suspension documentation. See Appendix B for the coding manual.

**Revocations.** A total of 71 EM participants had their conditional releases revoked while on EM or after being removed from EM, in comparison to 73 offenders in the control group who

were revoked while on conditional release (see Table 10). There were no significant differences observed between the EM participants and the control group in terms of revocations of release (Cramer’s  $V = 0.01$ ,  $p > .05$ ). For both groups, the majority of revocations were without an offence, and a small percentage were revocations with an offence or outstanding charge. The mean number of days to return also did not differ between groups, with 213.6 days ( $SD = 100.2$ ) for the EM participants and 211.8 days ( $SD = 114.1$ ) for the control group.

Table 10

*Comparison of Revocations and Types of Revocations Between Groups*

	Percentage ( <i>n</i> ) of Offenders	
	EM Participants ( <i>n</i> = 294)	Control Group ( <i>n</i> = 294)
No revocation	75.9 (223)	75.2 (221)
Revocation without offence	19.4 (57)	20.4 (60)
Revocation with outstanding charge	2.4 (7)	2.4 (7)
Revocation with offence	2.4 (7)	2.0 (6)

***Rationale for revocations.*** To determine whether EM contributed to revocation decisions, the rationales for revocations were examined using qualitative coding. For the EM participants, only the first revocation of conditional release during or after an offender’s EM supervision period was considered for the analysis. For the control group, only the first revocation during the study period was included in the qualitative analysis.

The qualitative coding revealed a series of rationales for revocation that were reoccurring across CSC and PBC revocation documentation. The frequency of these rationales in the revocation documentation for both EM participants and matched offenders can be seen in Table 11. The frequency in which the rationales were used in the CSC and PBC documentation did not vary substantively between EM participants and the control group. For example, ‘the circumstances of suspension were completely within the offender’s control’ and ‘deliberate disregard for imposed conditions’ were identified as two of the top most frequently cited rationales for revocation.

Table 11

*Themes in Rationales for Revocations for EM Participants and Control Group*

Themes	EM Participants		Control Group	
	( <i>n</i> )	Ranking	( <i>n</i> )	Ranking
The circumstances of suspension were completely within the offender's control	39	#1	35	#2
Deliberate disregard for imposed conditions	34	#2	36	#1
Lack of transparency with CMT	31	#3	23	#5
Substance misuse	28	#4	24	#4
Supervision plan is currently insufficient to manage risk	24	#5	27	#3
Inconsistent actions and decisions with the behavioural expectations of an individual committed to successful reintegration	24	#5	22	#6
Signs of return to offence cycle	17	#6	15	#8
History of failure at release	15	#7	18	#7
Long criminal history	7	#8	18	#7
Mental health concerns	2	#9	1	#9
Revocation requested	1	#10	0	#10

*Note.* The rationales for revocation are not mutually exclusive. Multiple rationales could be included in an offender's revocation documentation. The coding manual for revocations can be found in the Appendix C.

The revocation documentation for EM participants was also examined to determine whether EM was mentioned in the decision-making process and in what context it was mentioned. Overall, 20 EM participants' (28.2%) revocation documentation had a reference to EM in the reason for revocation. Most commonly, EM was mentioned in the revocation documents to illustrate: (a) the inability of the current monitoring plan (including EM) to manage the offender's risk to society, (b) the deliberate nature of the circumstances leading to the suspension (e.g. unauthorized removal of EM device, disregarding curfews on numerous occasions, etc.), and (c) concerns over attitudes toward electronic monitoring.

**Residency.** Beyond suspensions and revocations, residency is another area in which EM, as one part of the community strategy, may have an influence. CSC staff and PBC Board members were questioned regarding whether EM, as one part of the community strategy, contributed to residency decisions. The majority of CPOs and POSs (81.4%,  $n = 96$ ) agreed or strongly agreed that the availability of EM allowed for an alternative means of supervising offenders, who would otherwise require a residency condition. However, most CPOs with experience using EM stated that the availability of EM had no impact on the number of times they recommended modifications to a residency period (72.9%,  $n = 70$ ) or they decided not to renew a residency condition on an LTSO (67.7%,  $n = 65$ ). The majority of PBC Board members reported that the availability of EM did not influence their decision to impose (68.8%,  $n = 11$ ) or remove a residency period (76.9%,  $n = 10$ ). Similarly, 56.3% ( $n = 9$ ) of PBC Board members reported that availability of EM had no impact on the number of offenders assigned a residency condition. While the majority of PBC Board members indicated that EM had not contributed to residency decisions, there were a minority who reported that it had. For instance, the availability of EM influenced the decisions of 18.8% of PBC Board members ( $n = 3$ ) to impose and 15.4% ( $n = 2$ ) to remove a residency condition.

The mean duration of residency was slightly higher for the EM participants ( $M = 379.6$ ,  $SD = 319.2$ ), when compared to the control group ( $M = 349.0$ ,  $SD = 301.5$ ), however this difference did not reach significance ( $F(1,167) = .41$ ,  $p > .05$ ). This indicates that the use of EM does not reduce the length of residency periods.



## Discussion

As part of a larger EM Research Pilot, this report focused on the operational aspects of the project and EM's contribution to the decision-making processes of Parole Officers in regards to suspensions and revocations. Overall, EM is being utilized by POs as a discretionary tool to monitor supervision conditions and appears to somewhat contribute to decision making in the area of suspensions but not revocations of release or residency.

There is regional variation in the use of EM, with the Ontario region utilizing EM most frequently. The vast majority of offenders met the referral criteria established for the pilot. In the few cases where offenders were exempted from the eligibility requirements, there were case-specific considerations that warranted their inclusion (e.g., offenders' risk were being reconsidered at the time of the referral). While EM programs in Canada and internationally have traditionally focused primarily on monitoring low-risk offenders (Bonta et al., 2000; Baumer et al., 1990; Bourn, 2006; Courtright, Berg, & Mutchnick, 1997), CSC's EM Research Pilot is unique in that it focuses on moderate and high risk offenders in an effort to reduce the potential for "net-widening" effects.

Most staff had positive views of the referral criteria for the research pilot. The majority agreed that EM is appropriate for offenders with a geographic condition, for moderate risk offenders, and for high risk offenders. More support was found for using EM for high risk offenders than moderate risk offenders. A minority of the staff felt that there are factors used to support EM referrals and assignments that are not reflected in the eligibility criteria (e.g., offender compliance, gang affiliation, parole officer discretion and professional knowledge, victim concerns). Some staff respondents indicated that EM eligibility should be expanded to monitor a greater number of offenders than those that are currently eligible. However, many of these suggestions were outside of the technological capabilities of EM, which may suggest a need for further education about the capacity of EM technology.

The number of alerts generated was examined to determine the nature and types of alerts received. Overall, there were more general, global alerts generated than specific alerts related to an offender's conditions. Equipment related alerts were the most frequent alert issued per offender, and these types of alerts would be expected due to the equipment (namely the RF (BLUbox) units) being sensitive to movement. In some cases, the RF unit was installed

improperly by being placed on an object that caused movement. Other technical alerts were common and to be expected given that offenders are expected to work and participate in programs that may require them to travel to areas where there may be limited GPS availability. None of the technical alerts appeared to have been caused by the offender intentionally trying to avoid monitoring. Potentially serious general alerts (e.g., tampering, shielding and jamming) were fairly infrequent and unintentional, and only in 15 cases were tamper alerts attributed to intentional actions of the offender to tamper or remove the EM device.

Although less common than general alerts, specific alerts tied to offenders' conditions were commonly issued. Alerts related to geographical conditions were more common than alerts related to curfews. In most cases, the alerts generated were not considered breaches. For instance, permissions were often granted for an offender to visit a park when accompanied by a staff member, or for travel through or into their exclusion zone for an appointment. The maintenance of supervision and exclusion zones is quite labour-intensive, and as a result, the zones do not get modified for travel permits for short durations. The way in which zones are imposed (i.e. remaining within a certain radius from the parole office), may also be difficult for the offender to interpret. In the majority of cases, the offender exited the zone for less than 1 km and the alert was assessed as drift or unintentional (e.g., passing by a park). Alerts related to time violations were also rarely considered a breach. When monitoring a curfew, there is an acceptable grace period, such as when an offender arrives five minutes late. In some instance, offenders received special permission from their Parole Officer to arrive late for a curfew or to leave early for employment reasons. The use of GPS tracking can also increase the likelihood of drift, showing a time violation when in fact the offender had abided by their curfew.

EM Participants were compared to a control group matched on key demographic characteristics (e.g., gender, Indigenous status), offence and risk information (e.g., sex offender status, Reintegration Potential), and release characteristics (e.g., region of supervision, supervision type, special conditions, residency). The groups did not differ significantly on other measures of risk and need.

To examine whether EM contributed to correctional decision-making, the community outcomes of EM participants were compared to the matched control group. Groups were compared based on the frequency of and reasons for suspension, as well as the outcome of those suspensions. There were no significant differences between the EM participants and the control

group in the percentage of offenders suspended during the study period or in the reasons for suspension. EM participants had slightly fewer suspensions due to a breach of conditions and more suspensions to protect society and to prevent a breach of conditions than the matched control group. Also not reaching significance, EM participants had a higher rate of suspensions that were cancelled, withdrawn or expired, while the control group had a higher rate of suspensions that were issued or executed. This is likely due to the nature of the suspension in that breach of conditions provides a justifiable reason for revocation of release. In addition, EM was often mentioned in the suspension documentation as part of offenders' post-cancellation release plan and supervision strategy. Taken together, these findings indicate that the availability of EM may be influencing the decision making of Parole Officers in regards to suspensions, consistent with the small body of previous research (Brown et al., 2007).

Comparisons were also made based on the frequency of revocations and the length of residency periods. There were no significant differences between the EM participants and the control group in terms of revocations of release or time to revocation. Rationales for revocation were similar between groups, with CSC and PBC typically attributing revocation to the offender's direct actions leading to suspension and a deliberate disregard for imposed conditions. Further, the mean duration of residency periods was slightly higher but not significant for EM participants. While Parole Officers agreed that availability of EM allows for an alternative means of supervising offenders who would otherwise require a residency condition, most stated that it did not have an impact on the number of times they recommended modifications to a residency period or condition. Similarly, just over half of PBC Board members reported that availability of EM had no impact on the number of offenders assigned a residency condition. Although the sample is small, approximately one-fifth of PBC Board members did report that EM had influenced their decisions in regards to imposing or removing residency.

## **Conclusions**

While there are few studies in the area, the findings of this study provide support for the use of EM as an appropriate and effective tool for moderate and high risk offenders. The findings of this study suggest that EM may be influencing the decision making of correctional staff in regards to suspensions, but not in other key areas of community supervision such as residency and revocations of release. This is perhaps due to the nature of EM as a discretionary tool to be used by Parole Officers. It is not a mandatory program, nor is it considered an alternative to

incarceration. However, EM does provide POs with a tool to monitor special conditions that have historically been difficult to monitor as they often rely on offender self-reported behaviour and collateral contacts. The use of this technology appears to have become a reliable way of monitoring compliance with geographical and/or curfew conditions in a way that was not previously available to POs. This in turn supports offender reintegration and improves public safety.

The findings suggest that EM is being used appropriately and as intended. None of the evidence suggested that more offenders are being caught in the ‘corrections net’ who perhaps do not require additional interventions to support reintegration. Once case management staff are satisfied with the offenders’ behaviour in the community, offenders are being removed from EM rather than utilizing the full duration initially requested. In some instances, EM has been instrumental in the offender receiving police and other community support to reside in their communities.

While operating an EM program, alerts are frequently generated and to be expected. Concerns have been raised about EM in the past due to the technological issues and false alerts, resulting in increases in parole staff workload and disruptions to the supervision of offenders. Precise monitoring protocols and effective staff training are vital to ensure that alerts are properly triaged into those that require follow-up and are potentially a result of a breach of an actual condition. Gies and colleagues (2012) argued that the increase in information regarding offender behaviour in the community is best addressed by integrating a monitoring centre, accompanied by a graduated response system, into the EM program. Monitoring centres reduce the potential impacts of technological issues by reviewing, filtering, and prioritizing alerts before they are provided to the parole agents. It remains to be determined whether an integrated monitoring centre is cost effective, in particular for a smaller EM program.

EM is often utilized as a response to suspensions while on conditional release (i.e., putting offenders on EM within a week of a suspension being cancelled or withdrawn). This indicates that Parole Officers are recognizing the value in utilizing EM as a tool to monitor geographical and/or curfew conditions when a suspension has occurred. Evidence was also found that POs may be utilizing information obtained through EM to suspend offenders prior to a breach occurring, as demonstrated by a higher proportion of suspensions due to protection of society or to prevent a breach of condition. Although it may be expected that EM participants

would have a higher rate of breaches due to the additional tool to detect breaches, offenders may be utilizing this opportunity to build credibility and demonstrate accountability knowing that a breach is likely to be detected. POs may be suspending offenders prior to a breach due to information received from EM suggesting elevated risk. These initial results provide support for the potential of EM to influence the behaviour of offenders by creating a digital footprint of their whereabouts.

The strength of this research is that it is prospective in nature and involves multiple methods of data collection. However, it is not without its limitations. The matched control group was created to provide a comparison to similar offenders in the community that were not monitored using EM. Although a strict matching method was utilized for the vast majority of the sample, a more generous matching process was used in order to reach a 100% matching rate. In addition, the sample of EM participants contained a small percentage of Indigenous offenders and women offenders, thus preventing any disaggregation of results by gender or Indigenous status. Lastly, while examining such outcomes as suspensions, revocations, and residency periods, it is not possible to conclusively determine whether EM influenced the decision making of the correctional staff involved. Qualitative analyses were performed in an effort to enhance our understanding of the decision making process when faced with these decisions.

This report represents the first study in a set of three examining EM's possible effects on offenders, staff, and stakeholders, as well as on community supervision practices and public safety. The second report will focus on the cost-effectiveness of EM and whether an in-house monitoring centre is cost-effective. The final report will examine the outcomes of offenders on EM in more depth. That is, are there certain offenders, characteristics of release, or conditions for which imposition of EM leads to different results? The results of these studies may ultimately inform the national implementation of an EM program as well as the parameters of such a program (e.g., eligibility, selection criteria).

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## Appendix A: Definitions of Alerts

<b>Area Violations</b>	
Exclusion Alarm	Occurs when the offender has entered an exclusion zone
Global Exclusion Alarm	Occurs when the offender has entered into an exclusion zone that is identified as a “children’s area” (i.e. school, park, playground)
Inclusion Alarm – supervision zone	Occurs when the offender exits an inclusion zone (i.e. supervision zone)
<b>Time Violations</b>	
BLUbox Curfew Late Arrival	Occurs when a BLUbox or RF unit is utilized to manage curfew an offender and they arrive home late
BLUbox Curfew Left Early	Occurs when a BLUbox or RF unit is utilized to manage an offender curfew and they leave their residence early
Inclusion Alarm - curfew	Occurs when the offender exits an inclusion zone (i.e. supervision zone) when GPS tracking is being used to monitor their curfew
<b>Tampering</b>	
Master Tamper	Occurs when there is an attempt to cut, remove, stretch or otherwise tamper with the strap attached to the device, or, when the device itself has been cracked/opened
BLUbox Light Tamper	Occurs when the RF unit has been cracked or opened and light penetrates the unit
<b>Interference</b>	
Jamming Possible	Occurs when the device detects the presence of a jamming device in its vicinity
Shielding Possible	Occurs when the device detects the presence of a material such as metal that is preventing it from communicating with the EM system
<b>Equipment</b>	
BLUbox Movement	Occurs when the RF unit has been moved
BLUbox Power Loss	Occurs when the RF unit has been unplugged
BLUbox Power	Occurs when the RF unit has been unplugged and is moved

Loss/Movement	
<b>Battery Failure</b>	
Low Battery Alarm	Occurs when approximately 10 hours of charge remain and a 2.5-hour recharge is now required. The device will vibrate twice every 10 minutes until charged or dead
Critical Battery	Occurs when approximately 4 hours of charge remain and a 2.5-hour recharge is now required. The device will continue to vibrate twice every ten minutes until charged or dead
Dead Battery	Occurs when approximately 30 minutes of charge remain and a 2.5-hour recharge is required. The device will continue to vibrate twice every ten minutes until charged or dead
<b>Other Technical</b>	
Message Gap	Occurs when there is no cellular communication between the device and the EM system. Alert generates when the device has been unable to communicate with the system for 2 hours
BLUbox Message Gap	Occurs when the bracelet loses cellular communications but is in the presence of the RF unit. Alert generates when the device has been unable to communicate with the system for 2 hours
No GPS	Occurs when the GPS unit is not able to fix its position due to it not receiving signal from a sufficient number of GPS satellites. Alert generates when the device has been in an area without GPS (i.e. no satellites) for 2 hours

## Appendix B: Coding Manual for Cancelled and Withdrawn Suspensions

Code	Meaning/ when used
<b>Risk manageable with added management</b>	
New Condition Imposed	<ul style="list-style-type: none"> <li>• The PBC documentation explicitly identifies new conditions that will be imposed</li> </ul>
New Release Plan and Community Strategy	<ul style="list-style-type: none"> <li>• Local cancellations</li> <li>• New conditions/ programs/ plans explicitly recommended by CSC to manage risk.</li> <li>• Not imposed by PBC</li> </ul>
<b>Risk deemed manageable in the community</b>	
Positive History at release	<ul style="list-style-type: none"> <li>• This refers to explicit descriptions of positive aspects of the offender's release prior to suspension.</li> <li>• It can include having no previous breaches of conditions, previously attending programs and accessing resources to manage risk and address needs, pre-suspension positive behaviour at release.</li> </ul>
Positive Community Supports	<ul style="list-style-type: none"> <li>• CSC/ PBC suspension documentation contains descriptions of positive community supports as a mitigating factor.               <ul style="list-style-type: none"> <li>- Family</li> <li>- Employment</li> </ul> </li> </ul>
No evidence of actual breach of conditions	<ul style="list-style-type: none"> <li>• This can include cases in which it was determined that:               <ul style="list-style-type: none"> <li>- There was not enough evidence that a breach occurred.</li> <li>- No breach actually occurred</li> <li>- A new offence may have been committed by the offender but the offender has not (in a certain time frame) been charged.</li> <li>- Technical Issues (EM Specific)</li> <li>- Misunderstanding between Offender and their CMT in regards to release conditions</li> <li>- The offender was suspended for their own protection.</li> </ul> </li> </ul>
Positive attitude and willingness to engage with CP and CMT	<ul style="list-style-type: none"> <li>• This is in reference to behaviours/ attitudes post-suspension</li> </ul>
Offender took responsibility for his actions	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC suspension documentation</li> </ul>

Since the offender's Warrant Expiry Date (WED) is approaching, it was deemed more beneficial that the offender stay in the community to improve reintegration	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC suspension documentation</li> </ul>
Suspension was seen as an adequate intervention	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC suspension documentation</li> </ul>
Current release plan seen as adequate to manage risk	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC suspension documentation</li> </ul>
No evidence of a return to criminality/Risk has not become undue	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC suspension documentation</li> </ul>
<b>Other</b>	
Reached WED	<ul style="list-style-type: none"> <li>• This can be explicitly referred to in the CSC/ PBC suspension documents or can be inferred from the CWR.</li> <li>• E.g., offender held until WED, WED before decision could be made, etc.</li> </ul>

### Appendix C: Coding Manual for Revocations

Code	Meaning/When is it used?
<b>Risk deemed no longer manageable in the community</b>	
The circumstances of suspension were completely within the offender's control	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC revocation documentation</li> </ul>
Lack of transparency with CMT	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC revocation documentation</li> </ul>
Deliberate disregard for imposed conditions	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC revocation documentation</li> </ul>
Signs of return to offence cycle	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC revocation documentation</li> </ul>
History of failure at release	<ul style="list-style-type: none"> <li>• This refers to explicit descriptions of previous breaches of conditions/suspensions/revocations.</li> <li>• Part of decision to revoke – explicit mention</li> </ul>
Actions and decisions in the community while on release were inconsistent with the behavioural expectations of an individual committed to successful reintegration	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC revocation documentation</li> <li>• Focus on negative behavioural issues demonstrated by the offender prior to suspension.</li> </ul>
Long Criminal history	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC revocation documentation</li> </ul>
Substance Abuse	<ul style="list-style-type: none"> <li>• Discussions of substance abuse prior to suspension</li> <li>• Mentioned as part of suspension (i.e. failed urinalysis), or history/past as a factor</li> </ul>
Revocation requested	<ul style="list-style-type: none"> <li>• This was used in cases such as:               <ul style="list-style-type: none"> <li>- The offender wanted greater access to resources / programming</li> </ul> </li> </ul>
Mental health concerns	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC revocation documentation</li> </ul>
Supervision plan is currently insufficient to manage risk	<ul style="list-style-type: none"> <li>• Explicit mention in CSC or PBC revocation documentation               <ul style="list-style-type: none"> <li>- Refers to statements that the pre-suspension release plan is insufficient or that the future release plan is insufficient.</li> </ul> </li> </ul>