An Evaluation of Winnipeg's Electronic Monitoring Pilot Project For Youth Auto Theft Offenders

By

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A Thesis submitted to the Faculty of Graduate Studies of

The University of Manitoba

in partial fulfillment of the requirements of the degree of

MASTER OF ARTS

Department of Sociology

University of Manitoba

Winnipeg

June 2012

ACKNOWLEDGMENTS

This project/ evaluation/ thesis would never have been possible without the aid, support and patience of many individuals. First, I would like to thank all respondents that participated in the interviews. Without the youth staff and stakeholders the qualitative data would never have been possible.

Second, I would like to thank the staff members of Manitoba Youth Probation Services who generously helped with the evaluation providing their time, experience and knowledge. And, I would also like to thank the great administrative staff working for the University of Manitoba's Sociology Department.

Third, I would like to express sincere gratitude to my advisor, Dr. Rick Linden, who provided me the chance to work on this project, while offering me continual mentorship, guidance and positive encouragement. I also gratefully acknowledge the funding for the evaluation provided through a grant to Dr. Rick Linden by the AUTO21 Network of Centres of Excellence and additional support provided by the University of Manitoba Graduate Fellowship (UMGF). Additionally, thank you to the EM Project Manager, Brent Apter, for his guidance, help and professional attentiveness throughout the evaluation. The combination of Rick's and Brent's leadership, expertise and support has taught me the true meaning of community and professionalism, a lesson and opportunity I will never forget.

Special thanks to my friends and family, especially my mom (Karen Pearson). Thank you for your continual commitment, encouragement and reinforcement throughout the long process. A special thank you to Teresa Chernicky and Lynne Martin, the evaluation would not be where it is today without you. And, to my partner Matthew Willoughby, your work ethic, positivity, advice and your shoulder in times of need were irreplaceable.

To all the supports in my life, I cannot put into words my appreciation for your understanding, commitment and love. * I hope the findings of this research will make a positive impact on the young offenders in our community.*

LIST OF ACRONYMS

AT Auto Theft
ATTF Auto Theft Task Force
ATSW Auto Theft Suppression Worker
ATU Auto Theft Unit (Probation)
C Collateral Contact
CCAIN Criminal Courts Automation Information Network
CCW Community Corrections Worker
CJS Criminal Justice System
COMS Correctional Offender management System
CPIC Canadian Police Information Centre
CSC Correctional Service of Canada
CSU (Custody Support Unit)
EM Electronic Monitoring
EMC Electronic Monitoring Centre
EMCCW Electronic Monitoring Community Corrections Worker
EMPP Electronic Monitoring Program Pilot
FASD Fetal Alcohol Spectrum Disorder
FTC Fail to Comply
FYU Female Youth Unit (Probation)
GPS Global Positioning System
IJR Interim Judicial Release
IP In Person Contact
ISSP Intensive Support and Supervision Program
MPI Manitoba Public Insurance
MTS Manitoba Telecom Services
MYCS Manitoba Youth Correctional Services
MYPS Manitoba Youth Probation Services
NCF Non Compliance Formal (Breach)
NCI Non Compliance Informal (Caution or Internal consequence)
OC Other Contact
PO Probation Officer
PSR Pre-Sentence Report
REB Psychology/ Sociology Research Ethics Board
RCMP Royal Canadian Mounted Police
RF Radio Frequency
SAU Stolen Auto Unit
SP Supervised Probation
UAL Unlawfully at Large
U of M University of Manitoba
UTJ Undertaking (Bail)
WATSS Winnipeg Auto Theft Suppression Strategy
WPS Winnipeg Police Service
WUK Whereabouts unknown
YCJA Youth Criminal Justice Act

ABSTRACT

In 2008, the Manitoba government implemented an electronic monitoring (EM) project for high-risk automobile theft offenders. To evaluate this program, youth in the program were matched with other high-risk auto theft offenders who had not been put on EM. Dimensions including characteristics, daily contacts and criminal histories were examined between groups. Interviews were also conducted with offenders who had been on EM and with program staff and stakeholders. The results of the evaluation indicated a small change in criminal history for the EM group for auto theft, technical and combined offences. Since the Winnipeg Auto Theft Suppression Strategy (WATSS) began in 2005, there has been a decrease of approximately 11,000 auto thefts. Notably, only a very small part of this number could be attributed to the EM program. Electronic monitoring as an intervention can be a complementary program when offered in accompaniment with other WATSS and Manitoba Youth Correctional Services (MYCS) programs.

TABLE OF CONTENTS

LIST OF TABLES:

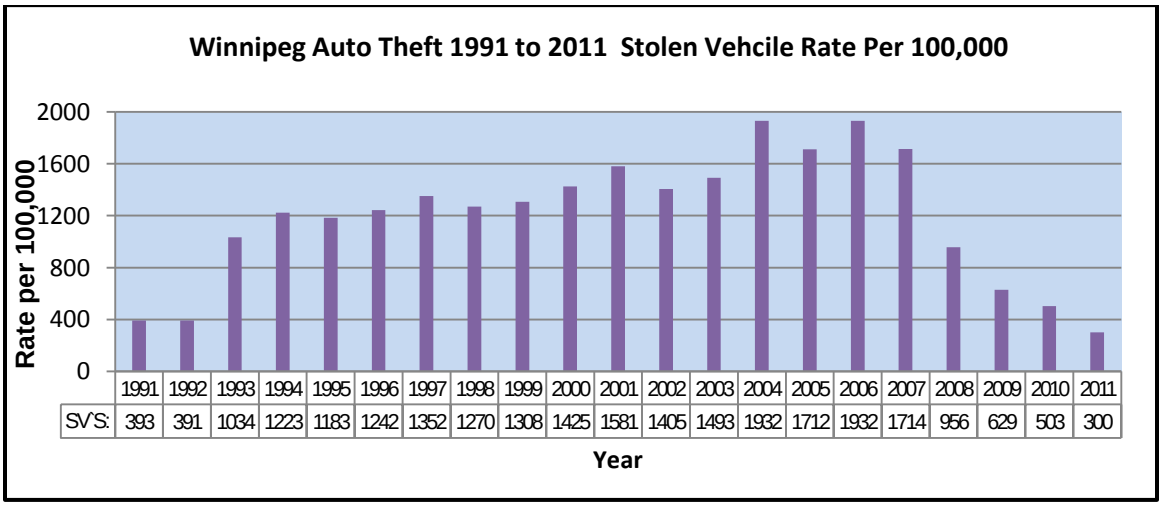
LIST OF FIGURES

CHAPTER ONE

INTRODUCTION AND PROJECT OVERVIEW

The city of Winnipeg, Manitoba is Canada's 8th largest city with a population of approximately 700,000 people. The problem of auto theft became a concern in 1993, when the number of vehicles stolen nearly tripled (Linden, 2010). Auto theft rates continued rising until they reached 1,932 per 100,000 population in 2004 (see Figure 1). From 2003 to 2008, Winnipeg had North America's highest rates of motor vehicle theft (Linden, 2010). After a slight decline in 2005, the rates continued to rise again in 2006 and during this period, Winnipeg had a motor vehicle theft rate four times the national average (Linden, 2010). In 2006, nearly one in every five Criminal Code offences was auto theft related, and the vehicle theft rate was 67 percent higher than the next highest Canadian city (Linden, 2010).

Figure 1.1: Winnipeg Auto Theft Rates 1991-2011



Auto theft was costly to Winnipeg residents and posed a high degree of danger to public safety due to the recklessness of auto thieves. In 2007, two people were killed

by drivers of stolen vehicles, and in one highly-publicized case, an early morning jogger was seriously injured after being deliberately run down by a youth driving a stolen car (Linden, 2010). In 2007/2008, in a 16-month period, eight drivers deliberately tried to run down police officers with stolen vehicles (Linden, 2010). Vehicle thieves also frequently attempted to ram police cars, and some youth engaged in other dangerous behaviour such as jamming down vehicle accelerators and launching driverless vehicles down city streets and into parking garages (Linden, 2010). Most Winnipeg residents have been directly victimized by auto theft, or know someone who has been victimized. The personal accounts, media reports, statistics and the reckless behaviour of auto thieves made it clear that auto theft was a major problem endangering public safety which could no longer be ignored.

In 2001, the province responded to the increase in auto theft by establishing an Auto Theft Task Force (ATTF) made up of representatives from the provincial Department of Justice, Manitoba Public Insurance (MPI), the Winnipeg Police Service (WPS), the Royal Canadian Mounted Police (RCMP), Prosecutions, and the University of Manitoba. Initial efforts of the ATTF involved measures such as: setting up bait cars, fingerprinting all recovered stolen vehicles, and restricting licensing for drivers convicted of auto theft (Linden, 2010). Despite the initial efforts of the ATTF, in 2004 the rates spiraled out of control, so the ATTF developed a more comprehensive auto theft prevention initiative called the Winnipeg Auto Theft Suppression Strategy (WATSS) which was launched in September 2005. The Strategy has three components: a tiered approach to at-risk youth with intensive community supervision of high-risk youth; a

program requiring compulsory vehicle immobilizers for the most at-risk vehicles; and youth programming addressing the underlying causes of vehicle theft.

In April 2008, WATSS added an electronic monitoring (EM) pilot component. The EM pilot falls under the Department of Corrections. The program manager of the Youth Correctional Services stated that EM provides for the:

> Enhancement of supervision of very high and high risk youth auto theft offenders through a variety of methods including the application of electronic supervision and monitoring techniques to enhance public safety and increase the young person's accountability…. The EM program is intended to:
>
> - Assist with compliance and monitoring of Court Order conditions.
> - Monitor location in the community during specific dates and times.
> - Reduce criminal recidivism while under electronic supervision by interrupting the offending cycle through enhanced surveillance.
> - Allow staff intervention at critical junctures in the offender's life (Apter, 2008, p.4).

It is expected that "technical violations" such as curfew compliance will increase, but that EM will hamper the offender's ability to "repeat criminal behaviour" and help complete a term of supervision without any or with minimal repeat incidents such as auto theft while under EM auspices. It is not expected to contribute to reductions in recidivism after sentence term expiry (Apter, 2008).

1.1 Purpose and Outline of the Thesis

This thesis has several purposes:

- It provides an assessment of the EM project implementation and issues and challenges encountered. This process evaluation examines the course and context of the EM pilot program, focusing on the details of the program itself (Duignan, 2009).
- It describes issues and challenges identified by the evaluation and key lessons learned.

- It draws conclusions and recommendations based on the evaluation findings.

Under WATSS, youth are grouped into four risk levels. For the purposes of this report only level four (high (4a) or very high (4b)) will be discussed. The Winnipeg Police Services Stolen Auto Unit and Probation Services monitor these youth. These high-risk youth are under the most intensive level of monitoring – each youth offender has a Probation Officer and is assigned either an Auto Theft Suppression Worker (ATSW) or an Intensive Support and Supervision Program Worker (ISSP). Manitoba's multi-pronged auto theft strategy includes intensive supervision of chronic auto thieves, with curfew checks as frequently as every three hours. This intensive level of monitoring allows for youth with repeat auto theft offences or breaches to be charged and quickly returned to custody. Through involvement with WATSS, level four offenders receive a variety of other supports and intervention programming.

1.2 Overview of the EM Pilot Program in Winnipeg

Electronic monitoring keeps offenders in the community, and more importantly, out of prison or jail while restricting their movement (Petersilia, 1986; Elrod & Brown, 1996). It is a form of intensive supervision or probation requiring an electronic device that is attached to the offender's body for tracking (Whitehead, 1992). These devices allow correctional staff to monitor offenders' movements and determine whether they have violated their restrictions (Nellis, 1991; Whitehead, 1992).

The pilot program is intended to examine whether or not GPS tracking would be a useful addition to the existing components of WATSS. The first phase of the project

involved only youth who have been convicted by the Youth Court. The second phase of the pilot project involved youth with pending auto theft related charges released from custody to a bail supervision program (Apter, 2008). Manitoba Youth Probation Services (MYPS) will determine which youth will be eligible for electronic supervision, but candidates must have a court order with a condition to attend, participate and complete EM as directed by the Youth Worker (Apter, 2008). The Manitoba Youth Probation Services can assign EM without a judge only as part of an integration leave or the court supervised order (CSO) portion of custody (similar to parole for youth). Thus, only judges in Manitoba can prescribe EM as part of a sentence.

It is important to note that the EM project in Manitoba does not constitute a program and is not meant as a punitive measure. Rather, it is to be used in conjunction with other services or programs to enhance supervision and effectiveness. The project does not replace case management, personal contact, counseling, therapeutic interventions, current supervision policy for auto theft offenders or other services provided by Manitoba Corrections (Apter, 2008).

The pilot project uses Global Positioning System (GPS) and cellular tracking devices to monitor the movements of the youth auto theft offenders. A third party vendor, Omni-Link, operates the system, monitors alerts and initiates a response protocol. If a violation occurs, local workers are notified from the electronic monitoring center (EMC). If a violation of conditions does not require immediate revocation, suspension, or breach and arrest of an offender then an initial response to non-compliance detection involves staff attempting to have the youth return to a pattern of

compliance by way of caution, support and/ or intervention. If the youth refuses to comply, then a revocation, suspension or breach is pursued. The exception to the "first response approach" to non-compliance involves cases where a zero tolerance phase is in place during supervision and/or it is determined that apprehension of the youth is in the best interests of the public.

The target population for electronic supervision is sentenced youth classified as high and very high risk *or* youth on interim release auto theft related offences, and who are considered "level 4" offenders. Youth offenders are fitted with a tamper-resistant ankle bracelet and each youth is electronically monitored for three months. Depending on compliance, the term may be extended if it is deemed in the best interests of public safety and offender accountability. For the pilot project, there will be a maximum of 20 offenders on electronic monitoring at a given time. The twenty EM devices are rented by the government per unit, per day, regardless of use. At no point during the pilot were all 20 EM devices utilized at the same time.

1.2.1 WATSS and Inclusion in EM

The number of youth within WATSS can change frequently. In 2005 when WATSS began, over 200 youth were served by WATSS. By August 2011, there were 86 youth remaining in WATSS. In total, 57 youth took part in the EM program between 2008 and 2011 (See Table 1.1). Forty-five of those youth were included in the EM evaluation. Twelve youth were not included in the evaluation because they began EM after the evaluation data collection had begun.

Table 1.1 Youth in the EM project	
Youth part of the EM Evaluation	45
Youth NOT part of the EM Evaluation	12
Total Youth in the EM pilot project	57

1.2.2 WATSS and Exclusion from EM

Table 1.2 Inclusion for EM participation
• A specific risk level (Level 4);
• Seriousness of offence in relation to personal and public safety;
• History of related serious offences;
• Attitudinal factors and statements;
• Multiple and/or recent auto theft offences with a history of failures to comply;
• Poor past reintegration efforts or responses;
• High profile auto theft/sensational auto theft act posing risk to self and/or public;
• Living arrangements and consent of primary caregiver;
• Length of time the youth has been on the electronic supervision waiting list;
• Sentence type;
• Sentence length;
• Other factors that may be deemed appropriate by MYPS.

Table 1.2 indicates youth eligibility criteria in order to be included in the EM project[1]:

Several youth were not accepted into the EM program after judges had provided an EM disposition because Manitoba Youth Probation Services rejected their participation. These youth were not included in the above tally of 57 youth placed on EM. As of March 2011, 14 youth were rejected from EM for the any one or more of the following reasons (see Table 1.3):

1 Apter, B. (2008). Electronic Monitoring Project: Policy and Guidelines Manual for Young Auto Theft Offenders. Manitoba Youth Correctional Services. Winnipeg, Manitoba.

Table 1.3: Reasons for exclusion from the EM project
• Did not meet inclusion criteria • Not approved by Auto Theft Area Director • No EM due to minimal technical breaches • Transferred out of Winnipeg, or to adult probation • Not deemed viable by Probation Officer • Insufficient auto theft history (does not meet criteria) • EM to be considered pending convictions • Youth requested EM, no EM sentenced

1.2.3 Participation rates in the EM Pilot (2008- 2010)

In 2008, there were 29 youth on EM at various times through the year (see Table 1.4).

Table 1.4: 2008 Participation in the EM project Evaluation

2008	Minimum Number of Days	Maximum Number of Days	Total Number of Days	Total Number of Youth	Average Days per Month
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3	14	35	4	8.8
May	2	31	196	10	19.6
June	2	30	194	11	17.6
July	2	31	237	15	15.8
August	6	31	259	12	21.6
September	4	30	171	12	14.3
October	1	24	149	12	12.4
November	1	30	165	8	20.6
December	5	31	262	14	18.7
YEARLY TOTAL	26	252	1668	98*	-
YEARLY AVERAGE	2.89	28.00	-	-	16.6

Note: In 2008, there were 29 admissions to the EM program at various times of the year.

These youth may have participated in the program more than once. The smallest group of youth in the program at one time numbered 4 in April, while the maximum number at

one time was 15 in July. Minimum and maximum number of days on EM refers to shortest and longest time spent on the device, broken down monthly. The minimum number of days a youth was on EM in a given month was 1 day (during October and November), and the maximum number of days a youth was on EM in a given month was 31 days (May, July, August and December). The average days per month spent on EM were 16.6 days. The trends for 2008 indicate that April had the lowest rates of participation at 8.8 days, likely because it was the first month of EM usage. The highest rate of participation was in August with 21.6 days.

In 2009, there were 37 youth on EM at various times through the year (see Table 1.5).

Table 1.5: 2009 Participation in the EM project Evaluation

2009	Minimum Number of Days	Maximum Number of Days	Total Number of Days	Total Number of Youth	Average Days per Month
January	4	31	286	14	20.4
February	14	28	218	10	21.8
March	1	31	201	14	14.4
April	4	30	175	10	17.5
May	2	31	206	9	22.9
June	1	30	165	13	12.7
July	2	31	248	13	19.1
August	1	31	269	16	16.8
September	4	30	213	12	17.8
October	1	31	210	14	15.0
November	5	30	269	12	22.4
December	6	31	165	9	18.3
YEARLY TOTAL	45	365	2625	146*	-
YEARLY AVERAGE	3.8	30.4	-	-	18.3

Note: In 2009, there were 37 admissions to the EM program at various times of the year.

The minimum number of youth on EM was 9 in May and December, and the maximum number of youth on EM was 16 in August. The minimum number of days in a month was 1 day in March, August, and October, while the maximum number of days in a month was 31 days in January, March, May, July, August, October and December. The average days per month spent on EM, based on a yearly average is 18.3 days. The trends for 2009 indicate that June had the lowest rates of participation with 12.7 days, while the highest rate of participation was in May with 22.9 days.

In 2010, 15 youth were on EM at various times through the year (see Table 1.6).

Table 1.6: 2010 Participation in the EM project Evaluation

2010	Minimum Number of Days	Maximum Number of Days	Total Number of Days	Total Number of Youth	Average Days per Month
January	13	31	85	4	21.25
February	13	28	95	5	19.00
March	3	28	86	4	21.50
April	16	30	88	4	22.00
May	31	31	101	4	25.25
June	1	26	124	6	20.67
July	6	27	111	7	15.86
August	1	31	125	5	25.00
September	2	30	152	9	16.89
October	8	31	201	9	22.33
November	12	30	146	6	24.33
December	12	31	153	7	21.86
YEARLY TOTAL	118	354	1467	70*	-
YEARLY AVERAGE	9.83	29.50	-	-	22.69

*** Note: In 2010, there were 9 admissions to the EM program at various times of the year. Also, six youth who were not included in the evaluation were added to the yearly totals to indicate the trends of EM usage of 2010.**

Nine out of 15 youth were part of the EM evaluation, while six out of 15 youth were excluded from the evaluation (because they were brought into the program after data collection had begun) but are included in this table to demonstrate the trends in EM usage for the year. The minimum number of youth on EM was 4 in January, March, April and May. The maximum number of youth on EM was 9 in September and October. The minimum number of days in a month was 1 day in June and August; while the maximum number of days in a month was 31 days in January, May, August, October and December. The average days per month spent on EM based on a yearly average is 22.7 days. The trends for 2010 indicate that July had the lowest rates of participation with 15.9 days on the device, while the highest rate of participation was in November with 24.3 days.

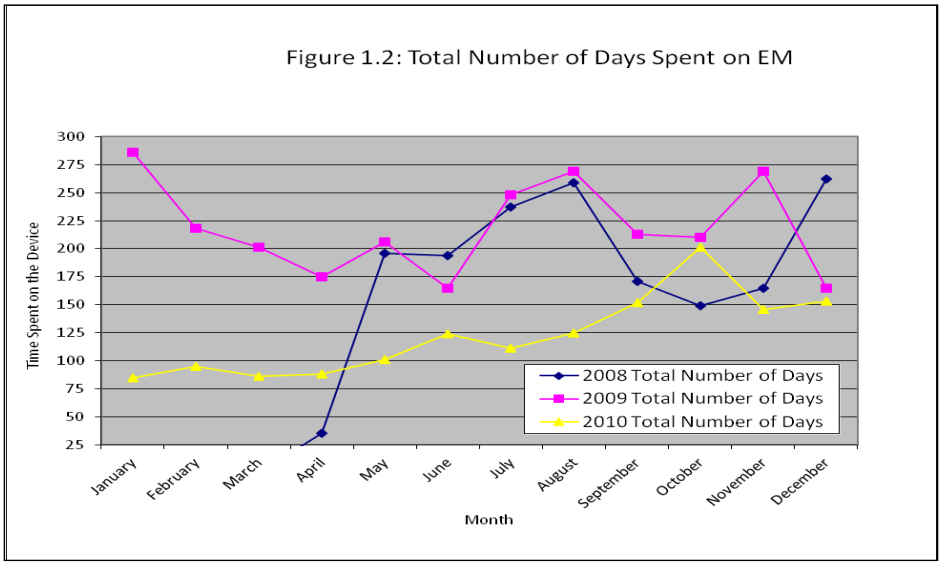
Yearly trends

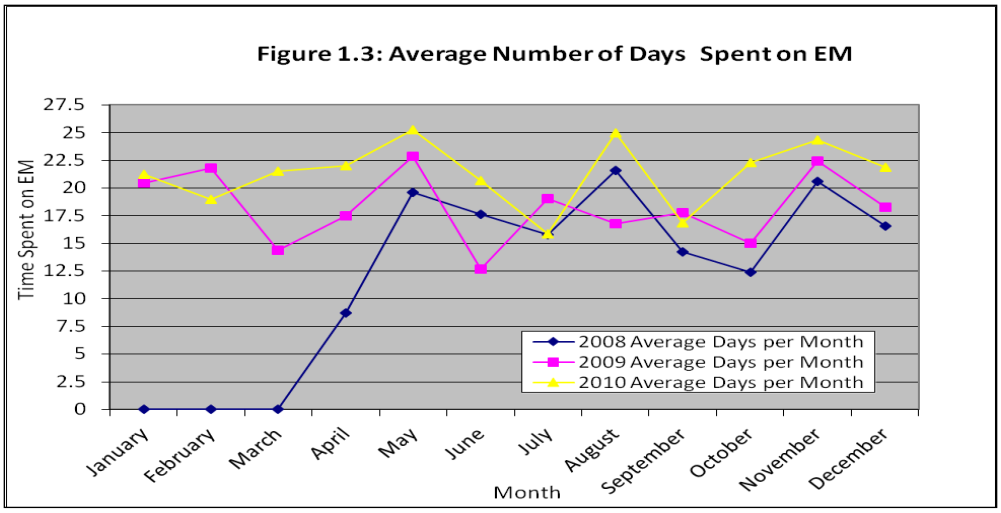
Over the three years, there were a total of 57 youth on the EM device (45 of whom were part of the evaluation). Two dates saw the highest EM participation at any given time: July 2008 (15 youth) and August 2009 (16 youth). These numbers include any youth who may have been beginning, continuing or ending their sentences. The minimum number of youth in any month over the three years was April 2008 (4 youth) and January, March, April and May 2010 (4 youth per month). The April 2008 youth count was low because it was at the beginning of the project.

The low numbers during parts of 2010 were due to smaller numbers of Level 4 youth within WATSS and because youth who were previously sentenced as youth had

turned 18 years of age. Although other months had low numbers of time spent on the device, no months showed similar numbers to the month of the project start-up (April 2008). The differences in time spent on the EM device are due to different release dates, probation orders, sentence lengths and other applicable conditions. The minimum time in one month spent on the device was 1 day, while the maximum time spent on the device was 31 days. The minimum and maximum time spent on EM was affected by the date in the month that youth were placed on EM, or left EM. For example, if someone was placed on the device July 30, they could only serve one more day in July on EM.

The trends for the three years indicate that generally enrollment reached a peak during the spring and summer months, dropping in the fall and peaking again during the winter months. The two tables below indicate these peaks (see Figure 1.2 and 1.3). EM project manager did not know why the peaks occurred during certain months; therefore these patterns could use further research (personal communication, B. Apter, 2011).



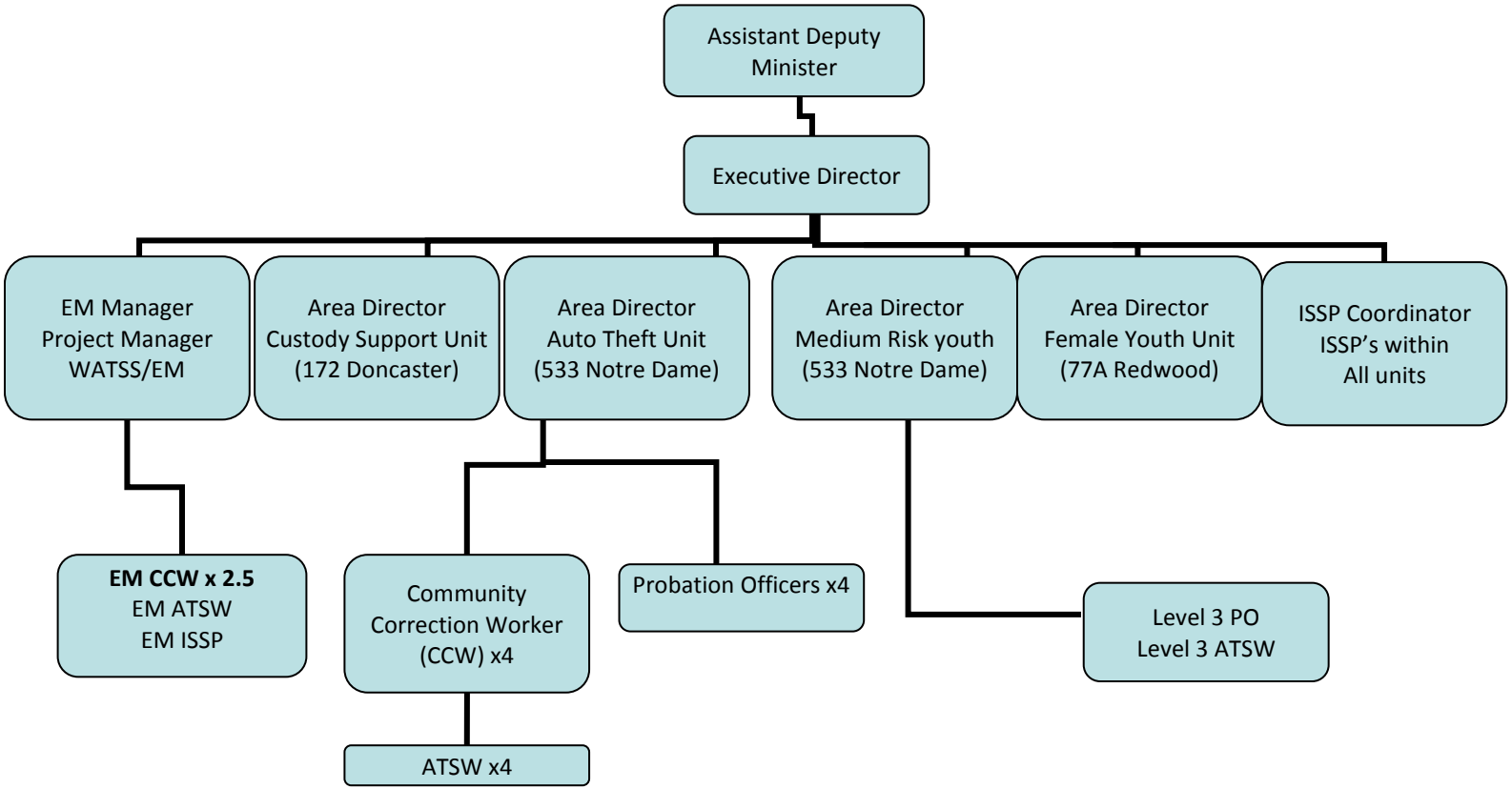


1.3 Staffing Model of the EM Pilot

Significant changes in the WATSS staffing model occurred in June 2010, which had an impact on the EM pilot program. Originally, there were three separate units including: High Risk Auto Theft, Very High Risk Auto Theft and the Female Youth Unit. It was problematic having three separate offices working with youth auto theft offenders. Therefore, the three units changed supervision procedures. Due to the fluctuation in numbers of high-risk auto theft females, some females were transferred to the Auto Theft Unit, while the medium risk females stayed with the female youth unit.

The flow chart below (Figure 1.4) illustrates the team members working with the EM project. EM Management and Area Directors are provided with separate assignments per unit; sometimes the assignments overlap between Area Directors and can be problematic. Thus, staff requires open lines of communication to work most effectively with each other.

Figure 1.4: Flow Chart of Staff working with the EM Pilot Project



Area Directors

Area directors are responsible for their particular unit as outlined below.

- EM Management**:** responsible for management of the EM program and 2.5 EM CCWs in accordance with AT Unit area director.

- 172 Doncaster**:** formerly known as the custody support unit although this name does not really apply anymore. General probation of high, medium & low risk youth, all offence types except sex offenders are monitored.

- Auto Theft Unit (533 Notre Dame): responsible for management of Probation Officers (x4), ATSW's (x4), and EM CCWs (x2.5) in accordance with EM management.

- Medium Risk Unit (533 Notre Dame): The name is no longer applicable. The area director supervises one probation officer and one ATSW who work with level 3 youth.

- Female Youth Unit (77A Redwood): responsible for the Female Offenders-Intake & Supervision, all risk levels, except auto theft Level 4.

- ISSP Coordinator: responsible for coordinating all ISSP workers who service all units in Winnipeg. Each unit gets an ISSP worker to assist in supporting and supervising higher risk youth.

The team members involved in the supervision of EM participants are Probation Officers, EMCC Workers, Auto Theft Support Workers and ISSP Workers. All team members work together to provide services to young persons. Typically, caseloads per staff vary between programs; general probation has approximately 35 offenders per staff member while the auto theft unit has about 15-20 offenders per staff member. For a full description of the duties of each team member, see Appendix B.

Auto Theft Probation Officers

Caseloads are capped at 15 cases per worker, which is approximately half or less of the normal caseload of a Probation Officer. However, if more youth need supervision these

numbers can be adjusted. Auto Theft Probation Officers are the primary case managers and are responsible for organizing and leading the case management process, including developing and documenting the case plan with the youth, family and significant others as well as all case management reports, program referrals and running record entries relevant to the case management process. The primary case manager involves the offender, significant others and the EMCC worker as required when performing case management duties. Auto Theft Probation Officers are required to provide more intensive supervision compared to other Probation positions.

Community Correction Workers

The Community Correction worker can fulfill one of three roles: Electronic Monitoring Community Corrections Worker (EMCCW) Auto Theft Suppression Worker (ATSW) or Auto Theft Intensive Support and Supervision Worker (AT- ISSP). In cases where EM is deployed to youth on probation, the EMCCW assumes the role of the ATSW or the AT-ISSP (Apter, 2008). Thus, the EMCCW monitors youth that are on EM. Each position of community correction worker has a varying caseload at one given time (EMCCW, 8 youth; ATSW, 12-15 youth; ISSP, 15-20 youth).

1.3 Cost of the EM pilot

The government of Manitoba funds the electronic monitoring pilot project. The yearly cost of the program was budgeted at $350,000 (Chomiak, 2007). The EM pilot program uses Omnilink and Jemtec; Omnilink builds the equipment and provides the monitoring, while Jemtec is the vendor that sells the service. The cost per unit is $15.50 per unit/ per

day whether the device is in use or not. All units have never been fully utilized; the maximum number of youth at one given time was in August of 2009, with 16 youth. The total cost per day for all units is $320, and annual costs provided are approximately $113, 150.

Each EM unit is paired with a cell phone that provides extra support. The youth in the project are transient and often do not always have operating landlines. According to EM management, providing a cell phone:

> *goes back to the goals of the EM project, to be a support to the youth. This is not a punishment, a lot of our youth do not have access to landlines, don't have phones, therefore, we provide the cell phone. We lend it to them and program it so that we can have contact with them.*

The cell phone contract is with Manitoba Telecom Services (MTS) and the total annual cost is approximately $7,200. In total, the EM units and the cell phones cost $120, 350.

Associated Costs

The Manitoba Government pays all costs of the EM project (as outlined below).

- Device charger ($107.00);
- Back plate ($32.10);
- New strap ($80.25);
- A new EM Device ($1,800/ unit taxes included);
- Purchasing a new cell phone (up to $430) and charger ($53.50/ each) or if a cell phone is lost, a new phone can be assigned to the same number.

Some of these costs are covered by a $200 deductible paid by the government. Other associated costs include EM staff wages including benefits, standby and pension adjustment equate to $167,000 a year. A full time staff member is responsible for a maximum of 8 youth per day. They are paid on a 40- hour workweek, but are required

to be on call 6 days in a week; thus, the 40 hours are split over 6 days in that staff are paid standby coverage with an additional per diem for off hours between midnight to 9 a.m. As with all programs, there are additional costs to consider in relation to the EM pilot program (see Table 1.7).

Table 1.7 :Additional Costs to Consider:	
Other Costs:	
Sending the WPS out to facilitate an arrest	Payroll expenses
Ongoing training for staff and stakeholders	User acceptance processes
Start up fees	Training
Licenses	Travel expenses
Production materials	Other

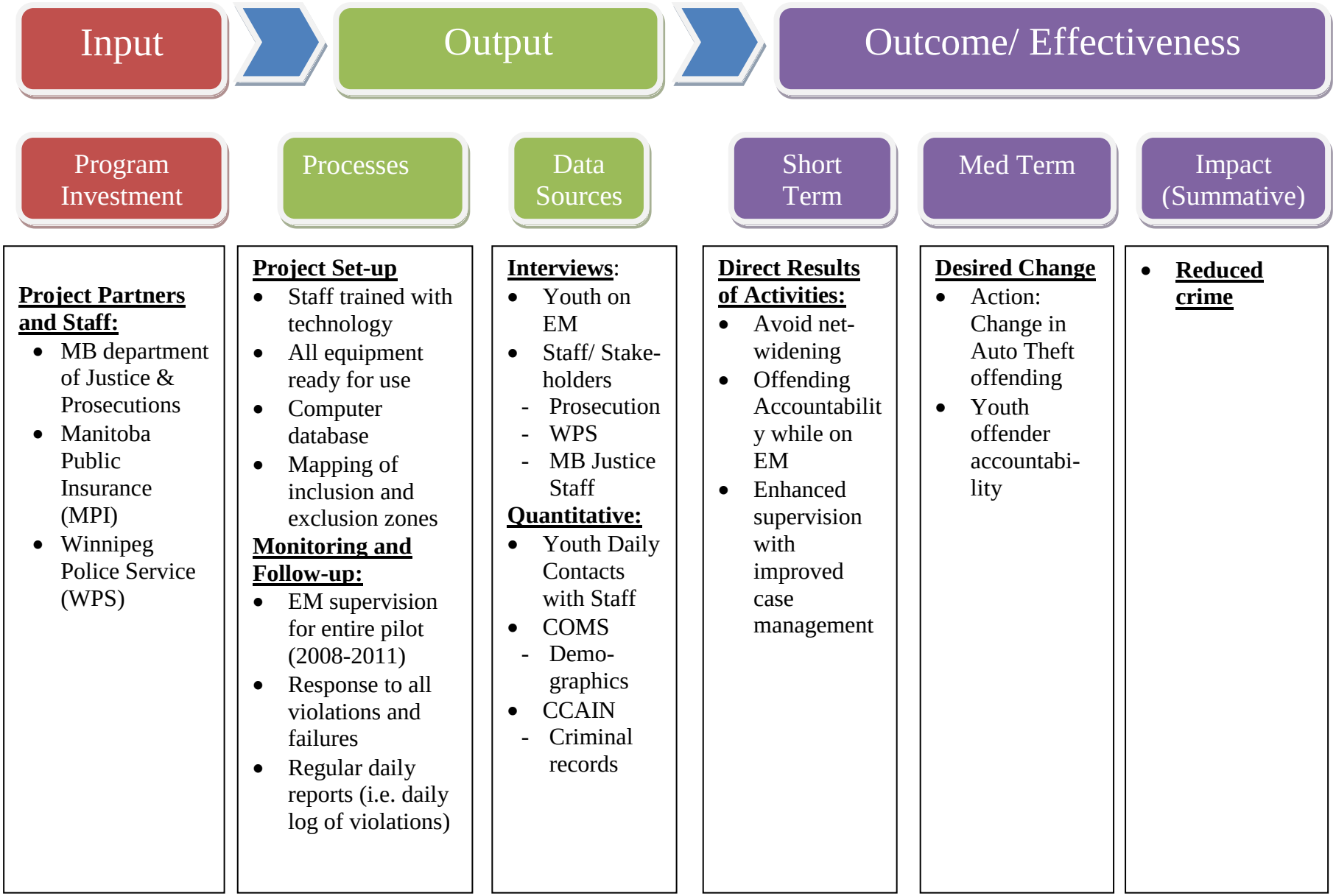
1.4 Logic Model

A logic model is used to show how a program is meant to work, with a visualization of the relationships operating within the program, the activities occurring and the changes or results that the program hopes to achieve (Kellogg, 1998). The logic model for this program is shown in Figure 1.5.

1.5 Summary:

Chapter one examines the epidemic of auto theft in Winnipeg, The Manitoba government introduced WATSS in an effort to reduce AT with EM as a piece of the three tiered approach. While this thesis examines whether or not EM is a beneficial addition to WATSS in reducing auto theft; it is first necessary to examine the available EM literature in chapter two.

Figure 1.5: Logic Model



CHAPTER TWO

LITERATURE REVIEW

Electronic monitoring can be defined as:

> Any technology that records the location of an offender within the community at particular places and times without human observation and transmits these data electronically to a central monitoring station, or uses an electronic device to detect the presence of a prohibited substance in the body (or to monitor other physiological functions) of an offender living in community and transmits those data to a central location. This definition includes GPS tracking, logging and emerging drug-testing technologies (Renzema & Mayo-Wilson, 2005, p. 220)

EM technology can aid in the detention, restriction, and surveillance of individuals within the criminal justice system (Australian Institute of Criminology, 2003), including monitoring pre-trial defendants on conditional release and monitoring convicted offenders on probation, parole or house arrest, intensive supervision, and work release programs (John Howard Society, 2000).

The non-custodial program involves a more intensive supervision than is provided with regular probation or parole, thus placing major restrictions on an offenders' freedom. According to Schultz (1995), EM provides the highest level of supervision and the greatest restriction of liberty and autonomy of offenders who are not imprisoned, therefore providing the greatest degree of protection to the community. Although the offenders are typically allowed to leave their residence for other programming, treatment, employment, school and other approved activities, they can be monitored 24 hours a day (National Institute of Justice, 1999).

As Bonta, Wallace-Capretta, and Rooney (2000a) note, managing offenders and their risk levels is one of the most important functions of the criminal justice system.

Thus, it is necessary to have a broad range of alternatives to incarceration, such as probation, conditional sentences, and intermediate punishments. Electronic monitoring, along with supervised probation and home confinement, is an intermediate punishment, which can reduce prison over-crowding, lower the cost associated with offenders in the criminal justice system (Schmalleger, 2000), deter offenders from committing crimes, as well as assist in rehabilitation by using mandatory treatment orders (Pfeiffer & Skakun, 2006).

The review of literature includes the following: (a) the history of electronic monitoring, (b) a summary of the technology, including different types of EM systems, (c) a discussion of some of the operating challenges of electronic monitoring, (d) an examination of the issues related to the effectiveness of electronic monitoring, including impact on offenders, impact on family, net widening, cost effectiveness and impact on reoffending/ recidivism, and (e) a summary of the research on the issue of electronic monitoring and youth offenders.

2.1 History of EM

The concept of house arrest can be traced back for centuries. As EM confines offenders to their homes, EM has been called a form of house arrest. Electronic monitoring has its roots in the work of Ralph Schwitzgebel (1968), who in 1964, developed a one-kilogram Radio Telemetry Device. This device transmitted signals to a modified missile-tracking unit up to 400 meters away, which determined the wearer's location on a screen (Sousa-Lopes, 2006; Renzema, 2003). Schwitzegebel intended the electronic

monitoring device to be used “only as an alternative to imprisonment and not as an added term of standard parole” (1968, p.34), but the actual use of electronic monitoring as a sanction did not occur until almost twenty years later (Renzema, 2003).

The advancement of electronic monitoring technology in corrections was delayed for financial and ideological reasons throughout the 1970s and 1980s. The public’s desire to “get tough on crime” and punish offenders stifled the rehabilitative application of electronic monitoring systems (Renzema, 2003). In the 1980s, however, the shift to community-based, intermediate sanctions and the adoption of a new offender classification system, based on risk, helped electronic monitoring emerge as a potentially effective way to control low risk, marginally dangerous offenders in the community (Staples & Decker, 2009). Combined with prison overcrowding and a need for offender diversion programs, these factors led to the search for more advanced equipment that could overcome the limited applications of previous systems (Button, DeMichele &Payne, 2009).

In 1983, after Judge Jack Love read an issue of *Spider-man* in which the hero was electronically tagged by a villain who wanted to track his every move, the New Mexico Judge wanted a similar device manufactured for his court (Mair, 2005). Judge Love persuaded an electronics expert to design and manufacture a tracking device inside an electronic bracelet, which was capable of verifying the location of probationers (Agrell, 2007). Thus, in 1983, New Mexico became the first state in the United States to utilize EM within its correctional system (Mainprize, 1995).

Further development and refinement of systems occurred, from radio frequency (RF) transmitters to global positioning satellites (GPS) (Button et al., 2009). A shift away from rehabilitation towards monitoring and control since the 1990s has made technological innovations such as electronic monitoring more desirable (White et al., 2011). Wodahl, Ogle, and Heck (2011) also indicate that an increase in intermediate sanction programs and probation and police agency partnerships places offenders at higher levels of supervision than ever before.

Several jurisdictions have developed electronic monitoring programs in Canada. The province of British Columbia was first to adopt an EM program in 1987 (Schultz, 1995), followed by Saskatchewan in 1990, Newfoundland in 1994 and Ontario in 1996 (Bonta, Wallace-Capretta & Rooney, 2000b). Since the expansion of EM in the 1980s, it is now used in at least 45 states in the U.S.A., 7 provinces in Canada, and in Europe, Asia, Australia and New Zealand (Gibbs & King, 2003).

2.2 Technology of Electronic Monitoring

The technology of electronic monitoring has vastly improved. According to the Government of Ontario (2004), most EM systems work by:

> Participants being fitted with a tamper-resistant ankle bracelet containing a miniature radio transmitter. […] Each monitoring bracelet is programmable to allow the offender to be away from home during certain pre-arranged times of the day to go to work, school, treatment programs, or other approved activities. Offenders are required to return home directly following such activities; curfews are strictly monitored.

According to Nellis (2005), GPS tracking of offenders may involve passive tracking, (also called programmed contact) or active tracking (also called continuous signaling). An offender may also be tracked using a combination of both of these methods.

2.2.1 Passive Tracking / Programmed Contact Equipment

Passive monitoring includes calls being placed to the offender's residence and his/her presence being confirmed using programmed contact equipment (Goff, 2004). The individual's identity may be verified by a password, a device that the subject wears, or a biometric signal, such as a fingerprint or a retinal scan (Australian Institute of Criminology, 2003). This type of equipment is unable to track an offenders' movement (John Howard Society, 2000). Passive systems are effective for detention purposes.

2.2.2 Active Tracking / Continuous Signaling

Active systems involve the individual wearing a device that emits a continuous signal 24 hours a day. The signal is sent to a unit, which relays it to a monitoring centre. Within a few seconds, the whereabouts of an offender is known. For example, if an offender enters a prohibited area, the device alerts the monitoring station and notifies a supervising officer or staff member (National Institute of Justice, 1999). Active EM tracks offenders' whereabouts on a continuous basis.

2.2.3 Types of Monitoring Equipment

Various types of monitoring devices are used to monitor offenders, including: Radio Frequency (RF); Field Monitoring Devices (FMD); and Global Positioning Systems (GPS) (Nellis, 2005). The first generation of EM technology relied on RF transmissions. However, GPS systems were later used and were found to be more effective compared

to RF systems (Bulman, 2010) and have recently grown in popularity (Australian Institute of Criminology, 2003 Bottos, 2007). As such, the focus for this document is GPS- EM monitoring.

There are three components of a GPS or satellite-tracking device: the satellites that orbit the Earth, the network of ground stations around the globe that monitor the satellites, and the actual mobile user device (Brown, McCabe & Wellford, 2007). To determine the accurate location of the GPS unit, information is compiled from four satellites. Three GPS satellites triangulate, measure, and compare the distance between the satellite and the receiver, while a fourth satellite measures the time (Brown et al., 2007).

GPS can allow for corrections personnel to track an offender's constant movement. If offenders violate the conditions of their orders, the system will locate their positions accurately within a few feet within seconds (Australian Institute of Criminology, 2003; Apter, 2008). There are several violation categories that are applicable to an offender wearing a GPS device, including entering an area prohibited by a court order (such as the home of a victim or within a certain distance of other offenders with ankle bracelets), tampering with the strap or device by trying to remove, open, break, or modify the unit. Note, communication or location failures (such as when the signal is lost or the location cannot be determined) are only violations if the offender has intent (Apter, 2008). If a violation occurs, the unit issues an alert, MYPS becomes aware that the offender is committing a violation and the worker contacts the youth offender (Apter, 2008).

2.2.4 GPS Malfunctions

A number of different errors can affect the accuracy of GPS systems. These include orbital error (the predicted position of the satellite differs from the actual position); clock errors (the satellite and the receiver have different clock settings affecting the range measurement); ionospheric and tropospheric delay (atmospheric interference); multi-path errors (GPS signals may bounce off a nearby object); and receiver noise (the accuracy of signal measurement from the satellite) (Natural Resources Canada, 2007). Other malfunctions involve ground equipment and monitoring capabilities, such as technical faults, poor monitoring coverage, and equipment failure (Gibbs and King, 2003, as cited in Bottos, 2007).

2.2.5 Innovations in Monitoring Equipment

Brown et al. (2007) postulate about future innovations in electronic monitoring, including the expansion of RFID tags, biometrics, and satellite imagery. Currently, Radio Frequency Identification (RFID) tags are used in Radio Transmitter (RT) monitoring. In this system, the offender's ankle bracelet contains an RFID tag. RFID tags are small transponder devices that contain antennas and microchips that can receive and transmit electronic signals. Passive transponder devices have no internal energy source (the device is powered by the electronic signal received by the antenna) and thus only have a short range of about 3 meters. A stationary tag reader in the offender's home, usually connected to a telephone line, continuously sends a signal to the RFID tag. If the reader does not receive a response from the bracelet, it notifies the authorities via the telephone line (Brown et al., 2007).

RFID technology has many benefits, due to its small size. Originally used to track objects, such as boxes in warehouses, it has more recently been used to track the location of inmates in prisons across the United States (Brown et al., 2007). Brown et al. also identify potential other ways RFID tags could be used. They state that unobtrusive stationary readers could be placed at various locations in the community, allowing officials to track the movements of low risk offenders. Advances in microchip technology have also produced passive RFID tags small enough to fit inside a syringe (slightly larger than the size of a grain of rice), which could be placed under an offender's skin or inside a layer of soft tissue or fat. This microchip technology is currently being used to track livestock or domestic dogs or cats. Brown et al. note that the implantation of RFID technology in humans is only speculative at this point and there are ethical and security concerns about such use.

Biometric recognition technologies also have potential uses in electronic monitoring (Brown et al., 2007). Biometric systems identify humans based on their unique physiological characteristics, such as fingerprints, iris patterns, facial characteristics, voice patterns, and handwriting. Biometric recognition could be used for both identification and verification of offenders. Brown et al. (2007) state that biometric capture stations could be strategically placed around the community. The stations would collect biometric information from tracked clients and submit it back to a central data location. Biometric recognition systems are rarely 100% accurate, however, so the effectiveness of the electronic monitoring system would be limited by the capabilities of the technology. Another technology Brown et al. (2007) discuss is satellite imagery,

which may one day be used to zoom in on an offender's real-time location using reconnaissance satellites. Currently the resolution of the cameras are only able to identity large generic objects such as cars, and not the smaller objects such as faces or license plates that would be necessary for use in electronic monitoring (Brown et al., 2007).

Given the widespread implementation of electronic monitoring and the potential for further technological growth in this area, it is important to discuss issues pertaining to the effectiveness of EM.

2.3 Issues Relevant to the Effectiveness of EM of Adults

Similar to any newer correctional program, there are several issues relevant to the effectiveness of electronic monitoring. The following section will summarize some of the main issues surrounding the use of electronic monitoring programs.

2.3.1 Net-Widening

One of the criticisms of electronic monitoring, like other forms of community corrections, is its ability to increase the scope of corrections beyond what it was originally designed to do. Net-widening occurs when a program is applied to individuals who have been charged with offences that are less serious than those of the program's target clients (Clear & Cole, 2003). According to Cohen (1985 as cited in McMahon, 1990) the development of community corrections has led to *wider*, *denser*, and *differing "nets*". There has been an increase in the total number of individuals entering the system, including new offenders, who previously would not have been processed by the

justice system (wider nets); offenders are subject to higher levels of intervention than before (denser nets); and community corrections agencies and services are acting in conjunction with traditional control mechanisms, rather than replacing them (different nets).

White et al. (2011) note that technological innovations such as electronic monitoring provide parole officers with a higher capability of surveillance of their clients, thereby increasing the likelihood that violations will be detected and reported. According to Mainprize (1992), the problem with net-widening is that it increases costs associated with corrections.

2.3.2 Cost-Effectiveness

Given that electronic monitoring was intended to provide intensive supervision while saving on prison costs, several researchers have studied the cost-effectiveness of EM (Pfeifer & Skakun, 2004; Bonta, Rooney & Wallace-Capretta, 1999; Mainprize, 1992). Cost-effectiveness is the "criterion for comparing alternatives when benefits or outputs cannot be valued in dollars. This relates costs of programs to performance by measuring outcomes in nonmonetary form" (Bureau of Justice Association, 2008, n.p.).

The cost of EM programs varies according to the type of technology employed, improvements in the manufacturing of equipment and the increased volume of production (JHSA, 2006, as cited in Bottos, 2007). Also, additional staffing resources required for 24/7 monitoring have an impact on budget and need to be accounted for within the budget. As such, the benefits and drawbacks of the cost effectiveness of EM should be evaluated (Bottos, 2007).

2.3.2.1 GPS costs of incarceration in Canada

Correctional services expenditures in Canada from 2008 to 2009 totaled $3.85 billion, for a per capita cost of $115.76. Expenses for federal corrections in Canada constituted $2.28 billion dollars, resulting in a cost of $68.30 per capita. Expenses for provincial corrections in Canada accumulated $1.78 billion, for a per capita cost of $53.51. (*These figures do not include policing or court costs, which bring the total expenditures to more than $12 billion per year*) (Statistics Canada, 2010). Prison accounted for seventy-one percent of these total expenditures.

Table 2.1: Costs associated with Canadian Federal and Provincial Prison[2]

Type of Prison (2004/2005)	Cost on Average	Male Prisoner	Female Prisoner
Federal Prison	$300.00 for males / per day $550.00 for females/ per day	$109,699 per prisoner/ per year	$203,061 per prisoner/ per year
Provincial Prison	$141.78 per prisoner/ per day		
Alternatives to probation	$5-$25 per prisoner/ per day OR $29,476/per year		
GPS UNIT COSTS	$15.50/day per unit		
Cell Phone extra	$2.5/ per day		
Correctional Staff	$130,000/ per year		

When calculating cost-effectiveness of electronic monitoring, the program needs to be compared to incarcerated offenders and/or offenders released without electronic monitoring while controlling for offender risk level. It has also been suggested that the EM of youths is a cost-effective alternative to incarceration (Harig, 2002)**.** However detailed information specifying the basis for cost calculations is rarely available. Raider

[2] Statistics Canada. (2010). http://www.publicsafety.gc.ca/res/cor/rep/2010-ccrso-eng.aspx

(1994) reports that cost calculations may be misleading, since the cost of monitoring an offender in his/ her home may only be a portion of the total cost for providing in-home treatment services to the offender and the offender's family. If these comparisons are not made, results will not be accurate (Pfeifer & Skakun, 2004).

2.3.2.2 GPS costs in the United States

In the United States, GPS systems are estimated to cost anywhere from $20-$40 per day (National Institute of Justice, 2005). More specifically, the active GPS system costs approximately $8.97 per offender per day, and $11.13 for the worker per day- totaling $20.01/ US a day (OPPAGGA, 2005).

2.3.3 Recidivism

Evaluating the impact of electronic monitoring on re-offending or on reconviction rates is a difficult task for several reasons. First, there are two basic measures of success when evaluating programs: controlling criminal behaviour both *during* and *after* the program (Bonta et al., 1999). Second, there is difficulty in finding appropriate comparison groups. According to Renzema and Mayo-Wilson (2005), many studies looking at EM do not provide comparison groups of offenders in prison and/or on probation to compare with the offenders that are being electronically supervised. For example, after examining 500 articles from dozens of countries, Renzema stated that only about a quarter of the studies were serious attempts at evaluation and a mere 20 of those were actually methodologically sound.

Third, most studies do not follow up or report on offenders after the monitoring period has elapsed, thus eliminating the possibility of determining recidivism (Sousa-

Lopes, 2006). Despite these evaluation difficulties, some researchers have been able to conduct successful evaluations of electronic monitoring programs. For example, Bonta et al. (1999) conducted a Canadian study using appropriate comparison groups and following up EM offenders after their completion of the supervision program. Data was collected from three provinces (B.C., Saskatchewan, and Newfoundland), with 262 male offenders sentenced to EM, 240 inmates, and 60 offenders on probation. The criminal activity of all offenders was recorded for one year in the community. Results were consistent across the three provinces: offenders on EM were just as likely to engage in criminal activity in the year following the program as offenders who were incarcerated or who received a sentence of probation. Second, significant proportions of the offenders were low-risk and, as such, could be safely managed in the community without conditions imposed by EM (Bonta et al., 1999). Thus, the results from this study support the notion of electronic monitoring having a net-widening effect when used for low risk offenders. However, the youth in the Winnipeg EM study are high-risk cases.

The results of Mortimer's (2001) evaluation of the electronic monitoring of released prisoners also show that EM has a neutral impact on reoffending. In this study, a sample of prisoners who were eligible for an electronically monitored curfew was compared with a control group of similarly discharged prisoners. At six months after the curfew period or release date, offenders eligible for the electronically monitored curfew had reconviction rates (30.5%) almost identical to the control group (30%). These findings are consistent with previous research (Bonta et al, 1999; Pfeifer & Skakun, 2004).

However, the length of time an offender spends on EM may play a role in recidivism rates (Gainey & Payne, 2000). The time spent on electronic monitoring is negatively related to recidivism (i.e. the longer the amount of time on EM, the lower the likelihood of recidivism) and positively related to delayed time to recidivism (Gainey & Payne, 2000). Although the results of this study support the deterrent notion of electronic monitoring, it does not compare electronically monitored prisoners with controls, leaving many questions unanswered about the utilization of EM (Gainey & Payne, 2000b).

After 15 years of studying electronic monitoring programs, Bonta et al. (2000) conclude that "their effectiveness as a true alternative to incarceration and recidivism has yet to be determined" (p.71). Indeed, intensive supervision and electronic monitoring programs may actually increase, rather than decrease recidivism rates, due to the increase in technical parole violations that result from the more intensive surveillance (MacKenzie, 2006; Wodahl et al., 2011). MacKenzie (2006) notes that the participants in electronic monitoring programs do not commit more crimes than their counterparts, but are more likely to get caught because of the increased surveillance. Wodahl et al. (2011) even states that community-based sentencing alternatives "[at best] have failed to deliver on their promises of reducing prison populations, and at worst they have contributed to prison growth through the mass incarceration of noncompliant probationers and parolees in our country's prisons and jails" (p. 207).

2.3.4 Impact on Offenders

Given that electronic monitoring limits an offender's freedom, it is important to look at the impact EM has on offenders. As previously noted, electronic monitoring is often used as an alternative to incarceration. According to Mainprize (1995), EM can act as a deterrent, as offenders who participate in an electronic monitoring program often perceive it as punishment they want to avoid in the future. Since electronic monitoring forces offenders to be held responsible and accountable for their actions, such programs may have the ability to reinstate a sense of social and moral discipline among offenders (Pfeiffer & Skakun, 2004). Thus, on one hand, electronic monitoring punishes offenders and, on the other, it offers the opportunity for offenders to become integrated within the community.

Many participants view electronic monitoring as rehabilitative, as they can remain in contact with family, maintain employment, care for children/siblings and attend treatment programs (Gainey & Payne, 2000; Payne &Gainey, 1999; Bonta et al, 1999). Most offenders therefore prefer being on house arrest rather than in jail (Payne & Gainey, 1999).

There are still negative impacts for offenders associated with electronic monitoring, however (Payne & Gainey, 1999). For example, the status of being in an EM program and wearing a bracelet, which makes it apparent the offender is under provincial or state control, can be a potential source of stigma (Mainprize, 1988). Other difficulties that offenders may experience are: a) deprivation of money, b) deprivation of goods and services, c) deprivation of liberty, d) family and social relations, e) troubles

watching others freely come and go, and f) the physical unpleasantness of wearing the bracelet or anklet (Payne & Gainey, 1998; Gibbs & King, 2003).

Staples and Decker (2010) discuss how individuals may experience a tension between the negative and positive aspects of living under house arrest. They note that the disciplinary and rigid aspects of the program "ignored [participants'] personal differences, disrupted their home lives, damaged their sense of agency, and left many of them broken down and filled with anxiety" (p. 17), but the participants still felt it was better than the alternative of prison. Some participants also appreciated the structure and self-governance the program encouraged them to exhibit in their own lives. However, Staples and Decker (2010) express their concern that "justice authorities have created a ‘‘kinder and gentler’’ form of social control—an iron fist wrapped in a velvet glove—that fuses punishment and discipline with the personal comforts and liberties of everyday life" (p. 17). There are also the negative impacts of electronic monitoring experienced by offenders’ families, as discussed below.

2.3.5 Impact on Family

The increase in use of electronic monitoring supervision has the potential to create difficulty for families. Although participants are happy to stay out of prison and build relationships with family members (Doherty, 1995), it is also possible that these programs may create additional stress for the families of the offenders (Elliot, Airs, Easton & Lewis, 2000). The strict limitations on their freedom may also lead to a reduction in social networks and support.

Relationships within the Family

The effect of electronic monitoring and curfew orders on relationships within the family shows mixed results. Elliot et al. (2000) found that curfews helped bring families closer together. Some parents felt it was beneficial to know where their youth were and that they were staying out of trouble. Electronic monitoring is thus "very useful as it imposes on the parents… what should be parental responsibility, making sure they know where their kids are and what they are doing" (Elliot et al., 2000, p. 41).

On the other side of the spectrum, it may be too demanding for some families to have complete responsibility for their youth while on curfew. For example, one family from the Elliot et al. (2000) study stated that it seemed as if his wife had also been tagged because she had to give up her part-time job to be home while their son was being monitored. Several families also stated that the monitoring affected them negatively because they could not go out and leave the tagged juvenile at home (Elliot et al, 2000). These findings imply that the monitoring can be a sentence for the entire family, not just the youth offender. Elliot et al. (2000) note that it is important that entire family is not punished for the youth's offending behaviour.

A number of areas of home life are affected by the restrictions imposed on an offender. These include household chores, home maintenance, household management, childcare and finances (Doherty, 1995) as well as unpredictable phone calls any time day or night and increased stress levels (John Howard Society, 2000). According to Doherty's (1995) study, the shift in household responsibility created as a result of EM caused stress and arguments in the families about chores and other

matters. Some literature has even suggested that the increased levels of stress resulting from an individual spending more time at home than usual may contribute to the incidence of domestic violence (John Howard Society, 2000).

EM's Effect on Youth Offender's Activities

Some youth offenders find that curfews make little difference to their leisure time, while some youth feel it completely affects their leisure time and activities. For example, some youth had to reduce their time playing sports, or quit teams all together because the tag would get caught, come loose, fall off and/or set the home monitoring unit off outside of curfew time (Elliot et al, 2000). If the tag is properly fitted, however, it is supposed to cause minimal discomfort to those participating in sports and daily activities. Although leisure activities are typically restricted, Elliot et al (2000) note that team sports and other suitable leisure activities are beneficial and youth should get special consideration to participate. Overall, home detention with electronic monitoring works well for families by keeping them together, but at the same time it also places extra burdens on family members (Payne & Gainey, 1998; Gibbs & King, 2003).

2.4 Applying EM to a Variety of Offenders

While the individuals involved with electronic monitoring programs were initially limited to first-time low-risk offenders, the sanction is now used on offenders from all risk classifications (Staples & Decker, 2009). For example, many EM programs are comprised of property or drug- related offenders, but applying EM to high-risk sexual offenders is on the rise (FDOC, 2003; OPPAGA, 2005; Roy, 1992; Bottos, 2007).

2.4.1 Low Risk Offenders

Previous research has suggested that the ideal candidates for EM supervision are the offenders convicted of misdemeanors or those with a low-risk of danger to the community (Blakeway, 1995). With low risk offenders, EM is usually used either by itself or in conjunction with other forms of low contact monitoring (Bottos, 2007).

Bonta et al. (1999) reviewed characteristics of offenders and program eligibility criteria and found that overall, programs seem to target relatively low risk offenders. Eligibility criteria often screens out offenders from participation in an EM program. For example, of 1,088 referrals, only 216 (19.9%) were accepted into the EM program in Marion County, Indiana (Maxfield, & Baumer, 1990). Similarly, the pilot EM project in Ontario accepted 28.6% of the 552 inmates referred to the program (Bonta et al., 1999; Government of Ontario, 2004).

Advocates of electronic monitoring argue that the programs must begin with low risk offenders in order to gain public credibility. Once a program has been established, it may be possible to expand it to include higher risk offenders. Looking at Pride, Inc. (one of the largest and longest running EM programs in the world), changes in offenders' percentages over time seem unpersuasive. Lilly, Ball, Curry and McMullen (1993) examined changes in the types of offenders who went through the program over a seven-year period. They found that overall traffic and liquor offenders comprised 94.2% of the EM participants at the beginning of the program and 91.7% seven years later.

2.4.2 High Risk Offenders

High-risk offenders are typically sentenced to EM as a component of a multifaceted program combined with more extensive human contact or supervision (Renzema & Mayo-Wilson, 2005; Bottos, 2007). Cotter and de Lint (2005) found that 16 states across the United States identified sex offenders as their targeted offender group for GPS electronic monitoring over other groups (such as burglars). Some states even mandate monitoring for sex offenders released from prison (Bulman, 2010). Indeed, due to recent media portrayals of electronic monitoring in connection to sex crimes, some offenders have concerns that the public may come to think all individuals being monitored are sex offenders (Bulman, 2010). It is easy to see why the electronic monitoring of sex offenders would be attractive to some communities, because it can proactively help to prevent the offenders from entering exclusionary zones (Spencer, 2009).

Bonta et al.'s (1999) research, however, found there is only a reduction in criminal behaviour for higher-risk offenders on electronic monitoring if they have received high quality intensive treatment programming. Other research indicates that rehabilitation is most effective when delivered to high-risk groups and is focused on criminogenic need areas (Buchanan & Maeder, 2004). Thus, EM programs for high-risk offenders are effective if offenders designated as medium to high-risk are also selected for intensive treatment programs (Buchanan & Maeder, 2004).

In the past, treatment services were rarely considered for offenders on intermediate sanctions such as electronic monitoring (Cullen, Weight & Applegate, 1996). Since offender movements are limited on EM, it may have been hard for

offenders to participate in treatment in the past. Newer electronic monitoring systems have now addressed this problem, as they can be programmed to allow movement to the treatment location. Bonta et al. (1999) found that offender treatment may not be necessary, since the punishment aspect of EM acts as a deterrent to control offenders' behaviour. However, Renzema and Mayo-Wilson (2005) recommend that it should be used alongside effective treatment interventions, given the uncertainty about the effectiveness of EM.

Electronic monitoring participants who receive treatment were more likely to complete the program than probationers who attend treatment (Bonta et al, 1999). Offenders most likely to benefit from intensive treatment will be high-risk offenders whose behaviours are noticeably affected (Sousa-Lopes, 2006). The interventions most often associated with EM programs are cognitive-behavioural interventions, which are associated with reduced recidivism rates (Gendreau & Ross, 1987).

2.5 Electronic Monitoring Evaluations of Youth

Currently, the majority of EM evaluations contain many methodological weaknesses. Some issues with EM evaluations are small sample sizes, failure to include any or an inadequate comparison group, and failure of random assignment to experimental and control groups (Renzema & Mayo-Wilson, 2003; Bonta et al, 1999; Bottos, 2007). Although some larger scale evaluations have taken place and have produced promising results, such as lower recidivism, technical violations and revocation rates for the duration of EM use (Florida Department of Corrections, 2003; Bottos, 2007; Padgett,

Bales et al., 2010), there is still a high need for more EM evaluations, especially youth EM evaluations. The following literature, chronologically ordered, summarizes some of the EM programs targeting youth.

2.5.1 The Development of a Juvenile EM Program (Charles, 1989)

In 1987, one of the first youth electronic monitoring supervision programs was implemented in Allen County, Indiana. The purpose was for cost savings for the county and to have a positive impact on youth. As it was "designed for success" (Charles, 1989, p. 11), the pilot program experienced few implementation difficulties. The participants committed no serious violations, most likely because the initial participants were non-violent offenders. Two juveniles ran away after clipping their bracelets, but did not commit further crime, and were soon re-arrested. After showing its success with the nonviolent offenders, more serious offenders were placed in the program. Charles' (1989) study provided early indications that electronic monitoring in a well-designed program could be an appropriate alternative to incarcerating juvenile offenders.

2.5.2 Juvenile EM: A Community Based Program to Augment Residential Treatment (Raider, 1994)

In 1994, a follow-up study of program outcomes and parent satisfaction was conducted of an EM program in Boysville. The pilot program sought to provide an alternative to more costly out-of-home detention and assessment programs, while at the same time offering a structured environment that would meet the needs of low- risk, newly and post-committed youth.

The evaluation focused on the views and beliefs of the 24 youth participants and 13 interviews with the youth's parents or guardians. The majority of the respondents felt that the electronic monitoring was humane and had not been an intrusion into their privacy. The parents/guardians described increased communication skills and problem-solving amongst the family. The program showed that parents/guardians viewed the EM equipment and visits by workers as a compensation for parenting deficits. Raider (1994) states that this may suggest that counseling to enhance parenting skills may be a useful addition to EM programs. Raider (1994) concluded that the program may not have been more cost-effective than alternatives, but it still may have served as a primary mechanism for providing community based treatment for offenders and families.

2.5.3 A Cautionary Tale about Electronically Monitored Home Detention (Baumer & Mendelsohn, 1995)

This study looked at a program implemented in the United States in 1989 that targeted juvenile burglars. Youth offenders charged and convicted of burglary or attempted burglary were placed on the EM program for 90 days as a condition of probation. To test the effectiveness of various forms of monitoring, the juveniles were randomly assigned to one of four levels of monitoring. Half the youth were monitored electronically and the other half was monitored manually. In addition, half of the youth in each of these two groups were visited by uniformed police officers.

The results showed high arrest rates among the youth during the 90-day program. Overall, 12.8% of the youth were arrested for new offences and 9.3% were

arrested for technical violations of probation orders. Baumer and Mendelsohn (1995) stated that these arrest rates were high considering the short time period. However, 89.7% of offenders successfully completed the program.

None of the four methods of monitoring even closely approached the standards set for the program. Thus, the researchers stated that this program was not implemented effectively. Baumer and Mendelsohn (1995) suggest that it is important to have expertise on how to operate the equipment, proper organization, and necessary support and resources to successfully implement an EM program. Equipment is a vital element in the overall success of an electronic monitoring program.

2.5.4 Five Years of EM of Adults and Juveniles in Lake County, Indiana: A Comparative Study on Factors Related to Failure (Roy, 1997)

The purpose of this study was to evaluate adult and juvenile offender records pertaining to failed completions of home detention sentences. The study selected 233 adults and 560 juvenile offenders sentenced to an EM home detention program between 1990 and 1994 in Lake County, Indiana.

The adult category had a 78% successful completion rate for first time and repeat offenders. Failure to complete the program successfully was linked to prior offences, prior institutional detention, and age. Among the juvenile sample, 93% of the first-time offenders successfully completed the program, while only 37% of repeat offenders completed the program. Juveniles sentenced to the program for longer

periods were more likely to fail to complete the program, with the success of the youth declining after a period of six months.

Four characteristics were related to program failure: current offence, substance abuse history, prior offence history, and most recent offence. Roy (1997) made recommendations about eligibility criteria, suggesting that the court should be discerning about the juvenile's current offences and that both the prior offence and substance histories should be considered during sentencing.

2.5.5 An Evaluation of EM Restriction of Liberty Orders (Lobley and Smith, 2000)

This Scottish evaluation included interviews with relevant practitioners as well as offenders and their families, reviews of attendance records for meetings, and the collection and analysis of data provided by agencies, such as social work departments and the contractors who provided the monitoring equipment. Although the program did not have a specific target group, there was a general agreement about indicators of unsuitability, such as chaotic drug use and unstable accommodation.

There were a total of 152 Restriction of Liberty Orders[3] made during the first 14 months of the pilot, sentenced to 142 individuals. Seventy-five percent of orders were between three and six months in duration. The majority of offenders (77) subject to RLOs were aged 16-20 and of the total amount of RLOs imposed between September

[3] Restriction of Liberty Orders (RLOs) with electronic monitoring was introduced in Scotland as a new community sentence by the Crime and Punishment Act of 1997. RLOs limit an offender's whereabouts for specific periods of time.

1998 and October 1999, 103 were completed and 9 were still in force at the end of February 2000.

The study found that longer orders were less likely to be completed successfully and younger offenders with more serious criminal records were more likely to fail to complete their orders. Forty of the 152 case orders failed as a result of the offenders' failure to co-operate. Few offenders completed their orders without some type of violation of their requirements. Only 11 of the 103 completed orders were completed with no unauthorized absences. Alternatively, a financial analysis revealed positive results. If monitoring centers were working at full capacity, the program would create an annual savings of £300,000 if RLOs displaced an equal number of three and six month prison terms. If all displaced prison terms were six months, there would be a potential savings of £1, 7 million. Overall, the study reported that EM might work with a different group of offenders.

2.5.6 From Fixed to Mobile: an Evaluation of an Experiment with EM for Minors (Kamphorst, and Terlouw, 2002)

In January 2000, a two-year pilot project with EM for juveniles aged 12-18 was initiated in the Netherlands. One of the main objectives of electronic monitoring in this pilot project was for juveniles to be able to continue their jobs and school, but remain under control in the community and stay out of jail.

Between January 2000 and July 2001, only 23 juveniles were placed under EM. This was far less than projected because of tough eligibility criteria. The average age of

the participants was 15.5 years old. Seventy percent had been involved in violent theft and 40% were first time offenders. Time spent on EM ranged from 4-75 days and virtually all participants completed their period of EM; only two failed to complete the program.

Participants and parents in the study indicated that EM was a genuine restriction and by no means an easy option. Nevertheless, almost all expressed a preference for EM over detention. The judges and the public prosecution, however, were concerned that EM may result in lighter sentences. It is important to note that **none** of the participants reoffended during the EM period. However, after completion of the program, four participants reoffended.

2.5.7 Electronically Monitored Curfew for 10-15 Year Olds: Report of the Pilot Project (Elliot, Airs, Easton and Lewis, 2000)

This study was conducted in the United Kingdom with the purpose of evaluating the effects of extending an adult electronically monitored curfew program to offenders' aged 10-15. The Home Detention Curfew Scheme (HDC) was implemented in January, 1999 and allowed for the release of eligible adult offenders from prison, up to 60 days early on an electronically monitored curfew (Pfeifer and Skakun, 2004). The decision to extend the program to youth was made after considering aspects such as health, safety and welfare issues (Elliott et al, 2000).

The pilot program ran from March 1998 until February 2000. One hundred and fifty-five electronic orders were made during this time. The researchers gathered their

data through interviews and focus groups with offenders and their families. Other interviews were conducted with education officials, defense and Crown prosecutors, and youth justice staff. Most of the electronic orders were for young males, aged 15, who were convicted on burglary and theft. Most offenders received a curfew for two to three months, and most were under curfew for 10 to 12 hours a day.

Two-thirds of the youth successfully completed their curfew order without breaching and approximately one in ten completed their order after breaching. Overall, one-fifth of the youths failed to complete the curfew order. Curfews were breeched by either being absent during curfew and/or by damaging the equipment or removing the tag. The program was stressful for some offenders and their families, while others reported that it had a positive impact on their lives. Elliott et al. (2000) estimated that if the measure of home curfew were used instead of supervision orders, a net savings of £30,000 would occur.

2.5.8 The Juvenile EM Project: The Use of EM Technology on Adjudicated Juvenile Delinquents (Harig, 2002)

The Office of Justice Systems Analysis of the New York State Division Criminal Justice Services conducted an evaluation to determine the extent to which electronic monitoring was a viable strategy for supervising youth offenders located in out-of-home placements (Pfeifer & Skankun, 2004). Thus, a pilot program was developed at three different sites.

The EM programs at the different sites were structured to each have the following components: a) each probation officer would have a caseload of eight clients; b) the average length of time in the program would range from three to six months; c) clients would be subjected to random drug testing every few weeks; d) client non-compliance would have consequences; e) written policies and procedures were available to guide the conduct of the program (Pfeifer & Skakun, 2004).

Once potential participants passed the eligibility criteria, clients were fitted with an EM bracelet. Six of the eight clients at each site were monitored with traditional confinement equipment and two were monitored with GPS tracking. An alcohol breath-testing device and metal detector were provided for each site, but probation officers failed to use them because they found them "unnecessary and overly intrusive." Surveys were administered to participating juvenile offenders and justice professionals. Harig (2002) reported that EM was favored over a juvenile institution (98.8%) and that EM was overwhelmingly (96.1%) viewed as a useful tool to deal with offenders.

There were 115 participants enrolled in the program and 99 completed or were terminated from the program[4]. Specifically, 57 clients successfully completed the program, averaging 3-4 months in the program. Forty-two clients failed to complete the program and twenty-seven of these forty-two removed their devices. The majority of program failures were institutionalized (p.1).

Harig (2002) concludes that EM is a viable alternative to custodial placement. Not only does it enhance public safety, but it also received much support from local

[4] The study is unclear what happened to the other sixteen participants – one possibility is mortality.

professionals and youth involved. Also, electronic monitoring was reported to be a cost saving alternative for youth who can effectively be dealt with in the community (a projected savings for the community between $97,000- $110,000).

2.5.9 Understanding EM of Juveniles on Bail or Remand to Local Authority Accommodation (Cassidy, Harper and Brown, 2005)

This research explored the use and effectiveness of tagging juveniles on bail and in particular 1) the effect on rates of breach of electronically tagging juveniles on bail; and 2) the use of electronic tagging on bail as an alternative to custodial remand for juveniles. In regards to efficacy of the EM equipment used to tag juveniles on bail or remand to LAA (Local Authority Accommodation), during the period of February, 2003 to December, 2003, there was an average of 18 equipment failures per month nationwide. These figures relate to equipment failure only and do not include cases of damage to the equipment by youth. Types of equipment failure include battery alert/failure, transmitter failure and component deterioration. Results showed that fewer young people breached after being tagged, compared to previous untagged periods on remand. However, those who continued to breach did so more frequently.

Summary of EM for youth.

Electronic monitoring of youth provides an opportunity for youth to remain in their communities, with their families, and to receive treatment (Raider, 1994). Similar to the adult literature on electronic monitoring, it appears that the research conducted on

electronically monitored youth suffers from a number of methodological weaknesses such as inappropriate comparison groups (Bonta et al., 2000).

Results of the previous studies indicate that EM is not an easy option, but that it is preferred over detention. However, there were concerns of lighter dispositions being sentenced in lieu of EM. Studies recommended that a well designed program, proper equipment and expertise, organization, support and resources are necessary to operate an effective youth EM project.

The studies found that longer periods of time spent on EM were correlated with a reduced likelihood of program completion. In other words, youth placed on EM for longer periods were more likely to fail to complete the program, with the success of the youth declining after a period of six months. Four characteristics were related to program failure: current offence, substance abuse history, prior offence history, and most recent offence.

The majority of the studies reported that EM did work for youth, but time on EM and severity of criminal history impacted the youth's success on EM. Thus, EM was more effective than not for youth, but risk level, prior criminal history and time spent on the device need to be examined when evaluating a program. It is inconclusive if EM is a cost saving alternative and needs further research.

2.6 Summary

Electronic monitoring has been used by criminal justice systems across the world for decades. What began as a one kilogram tracking unit (Schwitzgebel, 1968) has grown in

complexity and implementation to include radio transmitters and global positioning systems using satellites, while decreasing to the size of a grain of rice (Brown et al., 2007). New technological innovations continue to transform how offenders are monitored and controlled in the community and institutions. Electronic monitoring has been used throughout all steps in the criminal justice process to track individuals with pre-trial detentions, inmates in institutions[5], and offenders released into the community (John Howard Society, 2000). It can be used on offenders with low, moderate, or high risk, and both adults and youth (Spencer, 2009).

Offenders and their families may experience stresses associated with living in the community under restrictions, but the program grants them freedoms they would not have in prison, such as social support and opportunities to participate in work, school, and social activities (Elliot et al., 2000). While reviews of the effectiveness of EM are mixed (Bonta et al., 2000), it has the potential to offer a cost-effective alternative to incarceration (Harig, 2002). Unfortunately it may also widen the nets of justice, thereby increasing the budgets of justice (Mainprize, 1992). Lukewarm results about the impact of electronic monitoring on recidivism have led some to question if EM may actually increase technical violations (MacKenzie, 2006), while others emphasize the importance of a well-implemented program (Baumer & Mendelsohn, 1995). But nobody can deny that evaluating the impact of EM on re-offending is a difficult task, due to the widespread methodological problems in studies on the topic (Renzema & Mayo-Wilson,

[5] Sometimes youth taken into custody (for short periods of time) may continue to wear EM.

2005). Therefore, there is a need for more successful evaluations of electronic monitoring programs.

CHAPTER THREE

METHODOLOGY

Data for this thesis was drawn from a mixed methodology, using qualitative and quantitative sources. The qualitative portion was drawn from 50 semi-structured interviews conducted with youth on EM and staff/stakeholders working the EM program. The quantitative data was drawn from an analysis of characteristics, daily contacts and criminal records of youth within WATSS in Winnipeg, Manitoba. The chapter will detail the ethics process, the data collection, the questions the thesis seeks to answer, and the methodology to be used.

3.1 Ethics Approval

An Ethics Protocol submission form was prepared for the Psychology/ Sociology Research Board (REB). Included in the protocol package was a submission form, a study information sheet and three consent forms, one for the key informants, one for the EM participants and one for parents/ guardians of youth under the age of 18 (See Appendix C). The Psychology/ Sociology Research Board (REB) approved the proposal in May 2009. An amendment to the original submission was submitted early 2010 due to changes in the interview guidelines and the inclusion of an incentive to youth participants (a $10 movie pass); approval was granted March, 2010. Youth incarcerated at Headingly Correctional Institute, Portage Correctional Institute, Milner Ridge Correctional Institute and Agassiz Youth Center were not eligible for the gift card incentive as gifts are against regulations.

The information accessed through the interviews with youth subjects was sensitive. It was important not to discuss the project due to the high degree of media coverage on the topic. The youth in the study are particular high risk and safety was required at all times; thus all necessary precautions were taken to maintain safety to all participants and the researcher. As confidentiality is an important ethical consideration, especially working with high-risk youth within the criminal justice system, when interviewing all participants (staff, stakeholders, management and youth) a professional code of conduct was sustained. If youth names were mentioned at any point throughout the data collection phases, they were not included within the report. Also, to protect the privacy of the participants, any identifying characteristics were changed or omitted form the report. For example, the sex of the participants in the evaluation is not revealed because it could identify certain youth.

3.2 Evaluation Questions

This report examines process and outcome evaluation questions, including questions on the project rationale, impact, implementation, cost-effectiveness/ alternatives and goals and relevancy. Table 3.1 outlines the various questions examined within this evaluation indicating the data sources used to answer each of the questions.

TABLE 3.1: EVALUATION QUESTIONS GUIDING THE FRAMEWORK	
EVALUATION QUESTIONS	**INDICATORS USED**
PROJECT DETAILS	
1) Discuss the cost of the EM pilot project.	Project data and management interview
2.) How many youth have been served by the project? How does this compare with the initial projections of participation?	Project data, COMS and management interview
IMPLEMENTATION	
3.) What are the personal and demographic characteristics of the youth served by the project compared to the youth in the comparison group?	All data sources
4.) Has the project encountered any challenges in implementation?	Document Review and Key informant interviews
5.) How did the youth respond to the structure of the program?	Youth Interviews
PUBLIC SAFETY	
6.) What impact did EM have on response time to technical violations, auto theft and other offences?	Staff/ Stakeholder interviews
7.) In the perceptions of respondents, was the EM project successful in meeting the original goals of improving public safety?	All Interviews
OFFENDER ACCOUNTABILITY	
8.) What were the differences between the EM group and comparison group in terms of Daily Contacts?	All data sources
9.) Has the EM project been successful in meeting the original goals of offender accountability?	All data sources
10.) What were the differences in Criminal Behaviour between the EM group and the comparison group?	Youth Interviews
11.) Has the EM project been successful in meeting the original goals of reducing recidivism?	All data sources
12.) What was the psychological and physical impact of being placed on EM?	Youth Interviews
13.) Was the EM and comparison group successful?	Interviews and Database analysis
ENHANCEMENT OF COMMUNITY SUPERVISION	
14.) Does Electronic Monitoring result in net-widening?	All data sources

RELEVANCE	
15.) What are the benefits of running an EM project? What are the limitations?	Document Review and interviews
16.) Have any unintended consequences resulted from the EM program?	Interviews
17.) What was the average number of days that the youth remained on EM? What was the shortest and longest duration? What were the major reasons that the youth remained on or left EM?	Document Review and Key informant interviews
18.) Has the EM project been successful?	All data sources

3.3 Evaluation Methodology

The evaluation combined both qualitative and quantitative analyses. The qualitative methods included document reviews, staff and stakeholder interviews, and youth interviews. The quantitative methods included the examination and analysis of three databases: offender characteristics, daily contacts, and criminal behaviour.

3.3.1 Qualitative Data Sources

3.3.1.1 Document reviews.

Several documents and data were provided by Manitoba Youth Correctional Services (MYCS). These documents consisted of:

- An introduction/ information packet on WATSS and the auto theft risk levels (no date);
- WATSS statistics;
- The Policy and Guidelines Manual for Youth Auto Theft Offenders (Apter, 2008);
- Press Release “GPS Monitoring next step in Auto Theft Crackdown” (Chomiak, 2007);

- Electronic Monitoring Project Quarterly Report (Government of Manitoba, 2008);
- Manitoba Youth Correctional Services: WATSS EM project- presentation to the provincial management team (Apter, 2008b);
- An updated report on the Pilot EM project for Auto Theft Youth Offenders; this document outlined the three different proposals for EM and discussed budgeting (Brock, 2007);
- A report to the Minister of Justice summarizing the subject, issue, background, and analysis (April 21, 2009)

3.3.1.2 Interviews.

Face-to-face interviews were conducted with youth offenders, staff, stakeholders and management affiliated with the Electronic Monitoring (EM) project. The interviews were semi-structured, guided by an interview guide but allowing topics to emerge when needed. The interviews asked about the goals and objectives of the project, policies in practice, intended and unintended consequences, and the perceptions and opinions of the respondents on the project. Previous evaluations of electronic monitoring were used to help in the drafting of the interview guides. Separate interview guides were created for each of the three groups to be interviewed: youth/adult offenders; staff/ stakeholders and management of the EM pilot.

Selection of participants.

Table 3.2 identifies the breakdown of interviews (n= 50) with youth/ adult offenders, staff and stakeholders and management.

TABLE 3.2: Interview Participants:	
YOUTH	*f*
Custody	23
Community	2
TOTAL	**25**
STAFF	*f*
Probation Officer	7
Area Director/ Management	4
EM CCW	3
ATSW	2
TOTAL	**16**
STAKEHOLDERS	*f*
Police Officer	6
Crown Attorney	3
TOTAL	**9**
GRAND TOTAL	**50**

A phone/ email contact script was prepared for initial contact with all potential interview participants. After telling the selected individuals of the details and nature of the evaluation they were asked if they would be willing to participate in the project. If the participants agreed, a time and place was set up to conduct the interview.

Youth participants.

All youth who were or had been on electronic monitoring between April 2008 and October 2009 were asked to participate in a face-to-face interview. No one in the group was wearing the device at the time of the interview, either because they were in custody or because they had finished the program. I conducted all of the interviews in person and most in custody at several locations throughout Manitoba, including the Winnipeg Remand Centre, Headingly Correctional Centre, Milner Ridge Correctional Centre, The Manitoba Youth Centre, The Agassiz Youth Centre, and Portage Correctional Institute. The researcher and the inmates were separated by glass for a non- contact visit and the institutional staff could not hear the interviews.

Due to the transient nature of the offenders and their families, some of the offenders were difficult to contact. Thus, most interviews that were conducted were done in prison. Another factor limiting participation was the need for parental consent for youth under the age of 18 before they could provide assent to participate themselves. Probation officers working with the youth offenders were asked to help track down parents/ legal guardians to ask permission if their youth could participate in the interview. Initially, forty-five youth were eligible to be interviewed. However, two individuals deceased, resulting in 43 potential interviewees.

Table 3.3 indicates the youth and inclusion or exclusion from interview participation. Excluded are two deceased youth. There was a 56% response rate and a 44% refusal rate.

Table 3.3: Youth Interview Participation:

INCLUSION RESPONSE RATE: 58%	***f***
Youth in the community off EM	2
Youth/ Adult offenders in custody	23
TOTAL	**25**
EXCLUSION REFUSAL RATE: 44%	***f***
Youth in the community off EM	2
Adult offenders at Stoney Mountain	2
Youth that declined participation	4
Parents of youth under 18 unavailable	10
TOTAL	**18**

During the interviews at Milner Ridge Correctional Center, the researcher asked the Correctional officers to bring the individuals to the visiting room one by one, but to wait behind the door in case they did not want to participate.

At one point during the process after two interviews were completed, the corrections officer mentioned that he had contacted the other individuals on the list and they had refused participation because they believed the researcher was a police officer. This issue was discussed with EM program management and it was agreed that

the researcher should return to Milner Ridge and explain the evaluation to the individuals who had declined participation. All individuals agreed to participate.

Staff/ stakeholder participants.

The interviews with staff and management took place at the Manitoba Probation offices at 172 Doncaster and 533 Notre Dame. The interviews with the stakeholders, Crown Attorneys and The Winnipeg Police Service (WPS) took place in their main offices, which are 473 Broadway and 55 Princess Street respectively. A list of individuals who had worked with the EM project since inception was provided by Probation services.

Table 3.4 indicates participation and refusal of participation for interviews with staff and stakeholders. There was an 89% response rate and an 11% refusal rate.

Table 3.4: Staff/ Stakeholder Interview Participation:

INCLUSION RESPONSE RATE: 89%	***f***
Staff and Management who participated	16
Stakeholders who participated	9
TOTAL	**25**
REFUSAL RATE: 11%	***f***
Staff members who refused participation and/or could not be contacted	3
TOTAL	**3**

At the beginning of the interview, the evaluation was explained for a second time. The informed consent process was also described, including the option to withdraw at any point. The participants were told that their participation was voluntary and that their responses would remain confidential. Many of the individuals seemed to enjoy the experience and provided many details, both positive and negative about the EM project. The length of the interviews ranged from 15 minutes to two hours, averaging 1 hour per interview.

Interviews were recorded and later a laptop was used during the interviews to type the responses as they were being discussed. A recorder was not permitted for any interviews conducted in prison, thus twenty-three interviews were not recorded. All staff/ stakeholders were interviewed one on one in a closed door atmosphere.

3.3.1.3 Data Analysis.

Analysis of the interviews began immediately after each interview with transcription to ensure the accuracy of recordings. The transcribing process involved listening to the tape recordings, reviewing the notes from each interview, and recording the interviews word for word.

Once the interviews were typed it was necessary to read and code the data several times. The data was separated into two groups, (1) staff and stakeholders and (2) youth, which was then further collapsed into main themes. At first there were several main themes for each group, but they were soon collapsed into smaller categories according to goals of the project. Once these categories were created, data from each participant was compared and contrasted and placed into the appropriate themes, looking specifically for commonalities and disparities within the data.

3.3.2 Quantitative Research Design

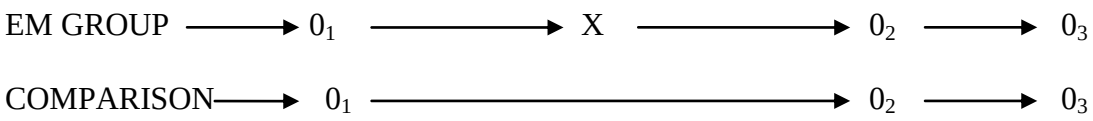
Ideally, evaluations would use Randomized Control Trials (RCT). This design has randomized groups of participants selected for either an experimental group or a control group. This was not possible in this evaluation so a quasi- experimental design was used. A quasi-experimental design follows the same configurations of an

experiment, however does not include randomization. This type of a research design requires a different method of selecting the participants for each group. See Figure 3.1 for a visual representation of the research design used.

Experimental Group: In this study the youth who receive an electronic monitoring bracelet are the experimental group.

Comparison group: A comparison group of youth, who were as similar as possible to the EM group, was also studied.

Figure 3.1: Quasi-Experimental Research Design



LEGEND	
0_1	Pre-EM (1 year prior to EM)
X	EM treatment
0_2	Post-EM 1 Year (1 year after EM)
0_3	Post-EM 2 Years (2 years after EM)

The major limitation of quasi-experiments hinges on the difference in characteristics between those individuals who will be selected into the experiment or the control group. One group or the other may possess more qualities which will more easily facilitate a change in behaviour without the influence of intervention. In an attempt to combat the possibility of threats to internal validity, a comparison group is established in order to assess the difference in behaviour change before and after the

intervention phase in both groups. For this comparison to be deemed successful, the comparability between the groups must be as close as possible.

3.3.2.1 Matching the research participants.

There are two main types of group matching that can be used in a study such as this, propensity score matching and one to one matched pairs. Propensity score matching creates scores based on a composition of selected participant characteristics and allows for a comparison between those individuals who are receiving the intervention and those to whom they will be compared. Comparison matches are determined for the intervention participants based upon the scores that are the closest to those of each participant.

Propensity score matching relies on a statistical process in order to determine the matches, while one to one matching requires the researcher to assess the difference in participant characteristics on an individual basis. The best non-treatment matches are paired against the treatment group members and from this the two groups are formed for comparison. This evaluation used the one to one matching of participants.

The youth in the comparison group were selected from a list of active probation auto theft youth offenders from July, 2009. These youth were matched one to one with youth already in the EM group based on: gender, criminal background (prior to one year Pre-EM), risk level scores and gang affiliation. The matching was completed by using the time youth spent on EM as an individual baseline. For example, if a youth was on EM from April 15, 2007 to June 1, 2007, this would be their EM baseline. Thus, their

Pre-EM phase would be one year prior to that time, April 14, 2006 to April 14, 2007 and Post EM 1 Year would include June 2, 2007 to June 2, 2008 while Post EM 2 Years would be from June 3, 2008 to June 3, 2009. Then the EM time phase would be used for a comparison youth pre-selected to match the EM youth. Once the EM timeline is carried over to the comparison youth, their timeframes are established for Pre-EM, Post-EM 1 year and Post-EM 2 years. See Table 3.5 for a breakdown of the dates that fit each time phase, using EM as the baseline for each participant in the EM group.

Table 3.5: EM Group Phases Breakdown- Using EM as a Baseline				
ID	PRE EM	EM	POST EM1*	POST EM 2*
EM1	4/15/07 to 4/15/08	4/16/08 to 6/11/08	06/12/ 08 to 06/12/ 09	06/ 13/ 09 to 06/13/10
EM2	5/17/07 to 5/17/08	5/18/08 to 08/06/08	08/07/08 to 08/07/09	08/08/09 to 08/08/10
EM3	7/22/07 to 7/22/08	7/23/08 to 10/22/08	10/23/08 to 10/23/09	10/24/09 to 10/24/10
EM4	6/28/08 to 6/28/09	6/29/09 to 6/29/10	6/30/10 to 12/30/10 (6M)	N/A
EM5	3/08/08 to 3/08/09	3/09/09 to 5/31/09	6/01/09 to 6/01/10	6/02/10 to 01/02/11 (7M)
EM6	10/22/08 to 10/22/09	10/23/09 to 11/21/09	11/22/09 to 11/22/10	N/A
EM7	12/11/07 to 12/11/08	12/12/08 to 3/10/09	3/11/09 to 03/11/10	03/12/10 to 01/12/11 (10M)
EM8	9/11/08 to 9/11/09	9/12/09 to 10/19/09	10/20/09 to 10/20/10	N/A
EM9	8/25/08 to 8/25/09	8/26/09 to 12/13/10	N/A	N/A
EM10	07/23/07 to 07/23/08	7/24/08 to 09/16/09	9/17/09 to 9/17/10	N/A
EM11	5/1/07 to 5/1/08	5/2/08 to 6/02/08	6/03/08 to 6/03/09	6/04/09 to 6/04/10
EM12	10/28/07 to 10/28/08	10/29/08 to 01/04/09	01/05/09 to 01/05/10	01/06/10 to 1/06/11
EM13	7/10/07 to 7/10/08	7/11/08 to 1/4/11	N/A	N/A
EM14	7/28/07 to 7/28/08	7/29/08 to 11/26/09	11/27/09 to 11/27/10	N/A
EM15	5/13/07 to 5/13/08	5/14/08 to 3/08/09	3/09/09 to 3/09/10	3/10/10 to 1/10/11 (10M)
EM16	8/09/08 to 8/09/09	08/10/09 to 1/18/11	N/A	N/A
EM17	4/26/07 to 4/26/08	4/27/08 to 8/28/09	8/29/09 to 8/29/10	N/A
EM18	7/21/07 to 7/21/08	7/22/08 to 2/17/11	N/A	N/A
EM19	2/10/08 to 2/10/09	2/11/09 to 5/26/09	5/27/09 to 5/27/10	5/28/10 to 01/28/11 (8M)
EM20	3/29/08 to 3/29/09	3/30/09 to 11/12/10	N/A	N/A
EM21	10/02/07 to 10/02/08	10/03/08 to 1/20/09	1/21/09 to 1/21/10	1/22/10 to 1/22/11
EM22	10/02/08 to 10/02/09	10/03/09 to 12/21/09	12/22/09 to 12/22/10	N/A
EM23**	10/29/08 to 10/29/09	10/30/09 to 12/02/09	N/A	N/A
EM24	7/6/2007 to 7/6/08	7/7/08 to 2/24/09	2/25/09 to 2/25/10	2/25/10 to 1/25/11
EM25	4/15/07 to 4/15/08	4/16/08 to 3/13/09	3/14/09 to 3/14/10	3/15/10 to 1/15/11 (10M)
EM26	9/22/07 to 9/22/08	9/23/08 to 04/16/10	04/17/10 to 01/17/11 (10M)	N/A

ID	PRE EM	EM	POST EM1*	POST EM 2*
EM27	10/17/07 to 10/17/08	10/18/08 to 09/02/10	N/A	N/A
EM28	07/22/08 to 7/22/09	7/23/09 to 8/6/09	8/7/09 to 8/7/10	N/A
EM29**	02/12/08 to 02/12/09	02/13/09 to 9/13/09	N/A	N/A
EM30	6/22/07 to 6/22/08	6/23/08 to 12/22/10	N/A	N/A
EM31	12/17/07 to 12/17/08	12/18/08 to 1/24/09	1/25/09 to 1/25/10	1/26/10 to 1/26/11
EM32	5/29/07 to 5/29/08	5/30/08 to 6/30/08	7/1/08 to 7/1/09	7/02/09 to 7/02/10
EM33	7/22/07 to 7/22/08	7/23/08 to 7/6/10	7/7/10 to 01/7/11	N/A
EM34	7/16/07 to 7/16/08	7/17/08 to 8/20/08	8/21/08 to 8/21/09	8/22/09 to 8/22/10
EM35	10/24/07 to 10/24/08	10/25/08 to 12/21/09	12/22/09 to 12/22/10	N/A
EM36	6/28/08 to 6/28/09	6/29/09 to 12/11/09	12/12/09 to 12/12/10	N/A
EM37	09/08/07 to 09/08/08	09/09/08 to 12/5/08	12/6/08 to 12/6/09	12/7/09 to 12/7/10
EM38	5/19/07 to 5/19/08	5/20/08 to 08/06/08	8/7/08 to 8/7/09	8/8/09 to 8/8/10
EM39	4/26/07 to 4/26/08	4/27/08 to 3/14/09	3/15/09 to 3/15/10	3/16/10 to 01/16/11 (10M)
EM40	3/24/08 to 3/24/09	3/25/09 to 11/14/09	11/15/09 to 11/15/10	N/A
EM41	12/1/07 to 12/1/08	12/2/08 to 2/20/09	2/21/09 to 2/21/10	2/22/10 to 1/22/11 (11M)
EM42	4/19/08 to 4/19/09	4/20/09 to 7/20/09	7/21/09 to 7/21/10	7/22/10 to 01/22/11 (6M)
EM43	4/29/07 to 4/29/08	4/30/08 to 10/16/10	N/A	N/A
EM44	06/4/07 to 06/04/08	06/05/08 to 11/05/09	11/6/09 to 11/6/10	N/A
EM45	7/28/08 to 7/28/09	7/29/09 to 8/10/09	8/11/09 to 8/11/10	N/A
TOTAL (N)	**45**	**45**	**35**	**20**
	Earliest Data from:	4/15/07	Data Collection Deadline:	01/31/11

*** To Qualify for the Post Years @ least 6 months of the year need to be completed. If a participant did not have a minimum of six months they were not included for the phase and coded as N/A.**

****Two youth did not complete Post EM 1 and 2 Years because they are deceased.**

3.3.2.2 Statistical analysis.

Several statistical procedures were used in order to test for significant effects between and within the groups. The statistical significance of 0.05 was used as the standard level of probability. In the occasion that an interesting finding is highlighted, it will be indicated that the finding is not statistically significant beyond 0.05. An outline of the procedures and tests used follows.

Participant Characteristics.

Frequency distributions were run for the participant characteristics, including gender, age, ethnicity, and living arrangements. This analysis allowed for the development of youth profiles in both of the groups of this study. Chi square and Independent samples t-tests were conducted to assess whether there were significant differences between the intervention and control groups on a number of characteristics. Only two results were statistically significant --accommodations away from parents and education. The lack of statistically significant differences between the groups suggests that the groups were accurately matched.

Daily Contacts.

The data for daily contacts was originally split into a comparison among three years: 2008, 2009 and 2010. For each year the contacts were split into three different types of contact officers: Probation Officer (PO), Auto-Theft Suppression Worker (ATSW) and Intensive Supervision and Support Program Workers (ISSP). The contacts were then further broken down into five different categories: In Person (IP), Other Contact (OC), Collateral (C), Non Compliance Informal (NCI) and Non Compliance Formal (NCF).

To assess the differences in contact between the groups, the worker categories were combined removing the differentiation between the worker types in the analysis. The five categories of type of contacts remained as before. The comparison between years was changed to a comparison of contacts between and within the various phases of the program: Pre EM, EM, 1 Year Post EM and 2 Years Post EM. As the length of each phase for each differed, each youth was assessed and their time periods mapped in order to present the best comparison.

In order to assess the difference between the two groups and their contacts with their workers, independent samples t-tests were conducted for each phase with the five contact types, with treatment and comparison groups as the grouping variable, and the number of a particular type of contact as the test variable. To further assess the difference in contacts with workers between the various phases of the program, paired sample t-tests were run for each group with each type of contact between the following combination of phases: Pre-EM to EM, Pre-EM to Post EM 1 Year and Pre-EM to Post EM 2 Years. These tests were run for both of the groups separately.

Criminal Behaviour.

Originally Criminal Behaviour was broken down into three major categories: Charges (by police), Convictions (on the charges) and Sentences. These categories were further split into resolution of those incidences: Not Convicted (NC), Convicted (C) and Pending (P). All offences were separate, resulting in approximately six hundred different offences for which the youth could be charged. In order to make the categories easier to compare, the categories were grouped into major offence type categories: for example, more

than twenty-five failure to comply offences were combined into only two categories: Failure to Comply (FTC) and Failure to Comply with an Undertaking (FTC_UTJ).

As with the daily contact information, the data on criminal behaviour was also separated and tracked by phases. The types of resolutions for incidences (Non Convicted, Convicted, and Pending) were initially recorded. All pending statuses were looked again in CCAIN in January 2011 to see if any changes occurred. If changes had not occurred to the pending dispositions, they were not included in the results of the criminal convictions; non- convicted statuses were also dropped.

In order to assess the difference between the two groups and the changes to their criminal behaviour, independent samples t-tests were conducted for each phase along with the different major offence categories, with treatment and comparison groups as the grouping variable, and the number of particular offences as the test variable. To further assess the differences in criminal behaviour paired sample t-tests were run for each group separately with the following combination of phases; Pre-EM to EM, Pre-EM to Post EM 1 Year and Pre-EM to Post EM 2 Years.

3.4 Summary

The evaluation used a mixed methodological approach combining qualitative and quantitative analyses. The qualitative methods included document reviews and interviews. The quantitative methods included analyses of offender characteristics, daily contacts, and criminal behaviour. Chapter 4 and chapter 5 discuss the results of the analyses.

CHAPTER FOUR

QUALITATITVE ANALYSIS OF ELECTRONIC MONITORING

4.1 Success of EM

The interviews with staff/ stakeholders and youth were one of the ways used to measure the impact and success of EM. For this report, EM success was measured through offender accountability, recidivism, public safety and cost effectiveness.

4.1.1 Offender Accountability

Staff and stakeholder perspectives.

One of the main goals of the EM program was to help the young people become more accountable and to gain better compliance with the terms of their release, creating a feeling of trust and responsibility so that the youth will not "cut and run". The term "cut and run'" refers to youth on EM cutting their bracelet off and going into the community without the device. One staff/ stakeholder respondent indicated that *"there will always be issues with the cut and runs, but there is nothing you can do about that unless you make the strap indestructible, which defeats the whole purpose of the program."* Many stakeholders (88%) felt that the youth on the bracelets were more likely to be compliant than youth not on EM. The level of compliance that the police have had with the youth on EM was reported as a positive feature of the pilot. EM is seen to be beneficial in helping to solve all levels of crimes and is good in assisting investigations, as it allows the

police to know whether a person was at a particular location or not. It also allows for quicker arrests of the youth which enhances public safety. One stakeholder stated;

> *This is an excellent program that guarantees that people are off the street more often when they have the bracelet on. The biggest issue is if they are let out of jail instead of being kept in custody. They would have otherwise been kept in custody but instead are let out and given a bracelet. The bracelet is not an alternative to custody; it needs to be in addition to custody.*

The project is designed to be an additional support to the youth. When there is a violation, staff assigned to the youth are supposed to attempt to get them back into a state of compliance, which involves a "*lot of remedial intervention, where they are phoning the youth or checking on the youth*," as indicated by a staff member. However, the process of checking on youth also occurs without EM, particularly for WATSS level 4 offenders. Thus, a probation officer stated that the technology of EM only acts as "*an enhancement to their knowledge or their ability to have knowledge of whether their youth is at home, or not at home*."

Youth perspectives.

Many youth commented to their workers that the bracelet has made them accountable by being a constant physical reminder of the need for compliant behaviour. EM served as a reminder to keep youth from being tempted to sneak out past curfew. Respondents frequently mentioned the idea of 'saving face' with friends, stating that wearing the bracelet allowed the youth to provide an excuse to their friends to avoid negative behavior or actions.

The majority of the youth interviewed (60%) stated that EM helped them comply with their conditions. Generally stated, the bracelet helped most of the youth stay in the

community longer than they would have without the bracelet. Most of the youth admitted to technically breaching their conditions but were either never caught or never charged. Some of the breaches that they admitted to were: drinking, partying, taking drugs, breaching curfew, breaking non-contact orders, reporting by phone to workers past the required time, drug related offences, and auto-theft related crimes.

The remaining youth (40%) commented that regular supervision is more than enough and that EM is not necessary. Many youth in this category discussed negative aspects of being on EM and being in the community, some individuals thought they were being used "*as pawns being played by the government"* meaning that they were being set up for failure. One youth described,

> *Giving me the bracelet made me want to steal cars. It was them versus me, they were trying to put me back in the system with that bracelet. They controlled my life and where I could go. They did not allow me to have authority over my own life. EM sets you up for failure. Regular probation means being checked on a few times a week. I like that freedom more. No one is watching over you then, and I am a free soul.*

These youth participants mentioned that they continued to engage in the same daily activities on the bracelet, including partying, stealing cars and taking drugs. Even though some youth said that EM did not help with compliance levels, all respondents attempted to justify their actions and crimes by stating what they did not commit. To elaborate,

> *I only complied with some of my conditions. I partied a lot with my friends and family, and stole cars a couple of times with the bracelet. I went joyriding in 3 cars, which is way less than normal in a 2 week time span. But, I did not breach my curfew.*

Another youth indicates the same idea: *"I missed curfew and would get arrested for being out past curfew. I would also forget to charge my bracelet and my phone. I did commit other crimes with it on, but I didn't steal cars*."

Overall, it appeared that EM had an impact on offender accountability within this pilot. This finding is in line with research conducted by the Correctional Service of Canada (2009) which found that EM might have positive effects on offender accountability. The interviews in this current study suggest that youth and criminal justice personnel believed that EM may have had a positive effect on compliance levels.

4.1.2 Recidivism

One issue addressed in the interviews was the relationship between EM and recidivism. Previous evaluations of electronic monitoring programs have shown mixed outcomes. Some evaluations have shown that EM does help lower recidivism rates among offenders (Bales et al., 2010; OPPAGA, 2005; Florida Department of Corrections, 2003; Gainey, Payne & O'Toole; 2000.) However, other evaluation studies found that EM has no effect on recidivism rates (CSC, 2009; Renzema & Mayo-Wilson, 2005; Bonta, Wallace-Capretta, & Rooney, 2000b).

Staff and stakeholder perspectives.

Nine staff/ stakeholders (36%) felt that EM did help in reducing recidivism rates. Some of the comments made by these respondents included:

> *Anecdotally, when the individuals that are in the EM program are taken out of circulation [being watched within the community], if they offend then they are sent to prison. This does have a direct impact on Auto Theft rates. There is a reduction not only in AT, but in other crimes because of EM in the way that it*

operates and in the way that it is enforced.

Whether it is EM, it might be, or it may be that we are still suppressing some of these guys. So we are interrupting their offending behaviours. So it could or could not be EM, I cannot pinpoint that it has reduced recidivism. Stats of auto theft have been reduced, but we are not sure on the exact reasoning- if it is the immobilizers or not. It cannot be pin-pointed exactly. I understand it to be the combination of both.

Ten staff/ stakeholder respondents (40%) stated that EM does not reduce recidivism rates and that auto theft rates have remained the same[6]. Six of the respondents (24%) stated that EM does not work because youth still get into trouble when the bracelet is removed. These respondents stated that EM has not stopped youth from offending but has only created a delay in offending.

Over half of the staff/ stakeholders and management did not believe that EM has been a preventative tool. They feel that EM works as a band-aid solution to a larger problem, rather than acting as a pivotal factor in turning youth around.

Youth perspectives.

Over half the youth respondents (60%) felt that EM helped reduce crime in the community. This statement is tempered by the comment that EM only helped reduce some levels of crime as many youth reported they continued to commit crimes while wearing the device. Several respondents indicated that crime in the community seemed to have decreased because youth were fearful of receiving the device. In some cases EM turned the youth away from auto theft and a deviant lifestyle. One youth explained,

[6] This information is incorrect. Chapter 6 and 7 will discuss the changes in auto theft offences for Winnipeg.

> *When the bracelets came out there was probably 30 of us car thieves, now with the bracelets there is about 5 guys left in the community. A lot of guys walked away when the bracelets came out and did not look back. I know of three guys that passed away because of auto theft related accidents, one guy that turned his life around completely, and some guys that get scared straight. Then there are stubborn assholes like me who just want to cruise at any expense.*

Of the remaining respondents, one fifth (20%) commented that EM had no influence on crime occurring in the community, while another fifth (20%) stated that they were unsure of EM's impact on crime in the community.

Youth were also asked whether the EM experience would make them more or less likely to steal automobiles. Almost half the youth, (44%) reported that EM would make them less likely to commit auto theft. Some of these youth said that stealing cars is too "pissy" (juvenile) and they did not want to take part in it anymore. One youth said, "*the bracelet helped change my life- it helped me slow down drastically."*

Other youth stated they were likely to continue committing crimes, especially auto theft offences. Interestingly, one third of these youth (36%) stated that EM would make them more likely to commit AT crimes, particularly after having been on the device, since when they removed the device they would be no longer being monitored as heavily. Five youth (20%) did not reply to this question.

Youth were asked if they thought EM was a good idea for youth serving auto theft related sentences. Most (56%) stated it would be a good idea for AT youth to have EM because they believed EM will help youth stay out of trouble and that it will help them to save face. Another 20% stated that the device was not a good idea for youth serving AT sentences because youth should only get the bracelet if they want it, and should not be forced to wear it; otherwise it would result in cuts and runs. One youth

explained *"the bracelet sets us up for failure and we cannot do anything or go anywhere. Once it is off, freedom comes. That is why kids cut it off- they just want to be free."*

Finally, a few youth (16%) felt that whether or not the bracelet was a good idea depended on the youth's intentions. These youth said that if kids are only using the bracelet to get out of jail that they will cut it off once they are in the community. Those youth need to want the bracelet to help them succeed and finish the program. And for others, EM won't work until they are ready to quit AT. One youth stated:

> *Stealing cars is like taking drugs- a crack head would not stop taking drugs unless they wanted to and were ready to. It is the same idea for car thieves, the bracelet does not help or make them want to quit- unless they are ready to do so.*

4.1.3 Public and Staff Safety

Staff and stakeholder perspectives.

Staff and stakeholders were asked their opinions of whether **t**he public perceived EM to contribute to public safety. Almost half (48%) the respondents, felt that the public supported EM because they believed it provided additional safety and a safer community overall. Some of these respondents believed that public attitudes were strongly influenced by media coverage highlighting stories about the technology, leaving the public questioning the implementation and performance of EM.

Approximately one-third of staff/ stakeholders (32%) stated that the media greatly influenced opinion of EM and its impact on public safety. At the beginning of the EM implementation, the public learned about EM through the media and saw it as a panacea. To the public, being on EM meant that youth were being monitored 24/7 and

any sort of slip up or criminal activity would be automatically detected. "*At first, the public wanted a magic bullet that would stop auto theft. Now, they simply know that is unrealistic*." With constant media coverage, the public was soon left feeling "duped." A staff member reported talking to a parent who told the staff member that he was frustrated with the lack of support provided to his son on EM. The parent told the Probation Officer:

> *My son, on EM, was at a party with another fellow who was also on EM. I had to drive them home because they were both impaired. [The father's son was killed a few weeks after that incident- the father's frustration was expressed to the PO] You [Probation Services] think you know what is going on with those kids but you have no fucking idea. You might know who they are, but you do not know what they are doing.*

The remaining five respondents (20%) stated that they did not believe that EM was contributing to public safety.

The public's perception was that EM provided intelligence about exactly what the youth were doing, who they are with and when they are out. However, electronic monitoring cannot meet these expectations. Staff/stakeholder respondents felt that EM enhances current community supervision and should not be seen as having the ability to solve everything. One staff member said that the public believed that:

> *When an auto theft youth was on EM, that there is an invisible perimeter around their house, and if they leave their home they will get electrocuted or something. Once the public discovered that youth wearing EM were breaching their conditions, cutting and running or at worst still stealing cars with the bracelet on, the opinions of the public began to change. The public was fed up with AT rates. Auto theft was not just affecting one segment of Winnipeg, but rather everywhere and everybody. I don't think the public necessarily understood of what was being implemented. Largely the public supported and felt that EM would help increase public safety. Soon into the project, people began feeling frustrated about the youth that were cutting it off. People started questioning it a little bit more with all the media coverage.*

Overall, staff/ stakeholder's were split (positively 48% and negatively 52%) on whether EM influenced the public's perception of safety.

Youth perspectives.

The responses of youth to whether EM affected perceptions of public safety were split three ways. One third of youth (36%) responded they did not know if EM affected public safety. Most of these youth reported that when they had the bracelet on, they still stole cars and committed other offences. One youth said that if they were still stealing cars, it would not make sense for the public to feel at ease because of EM. One third of the youth (32%) did not believe that EM had any effect on public safety. These youth felt it was evident that the public would feel threatened because of the media frenzy surrounding EM, coupled with seeing youth in the community wearing the device. One youth reported;

> *We get labeled right away. I would like to think that EM did something, but it doesn't do shit. The bracelet makes us look more dangerous then we really are. It is easy to take on and off, and people can still do whatever they want with it. If a car thief wants to steal a car, they will steal a car.*

The remaining third of the youth (32%) agreed that the public perceived EM to have contributed to public safety. Their reasoning was that since auto theft has been reduced in Winnipeg the decrease would have a spiral effect and ultimately the public would feel safer. All respondents in this category mentioned that community residents felt that EM kept a "bird's eye view" on the auto theft youth to make sure they are staying out of trouble.

4.1.4 Support and Interrupting the Offending Cycle

All youth respondents were asked if they found the EM program helpful. If they responded yes, they were asked what part of the program was most helpful. The majority of the offenders (80%) on EM stated that the program was helpful. The most beneficial component was the added support by staff. Therefore, the pilot goal of providing extra support was seen as successful in the view of the youth participants. Table 4.1 indicates the breakdown of the responses.

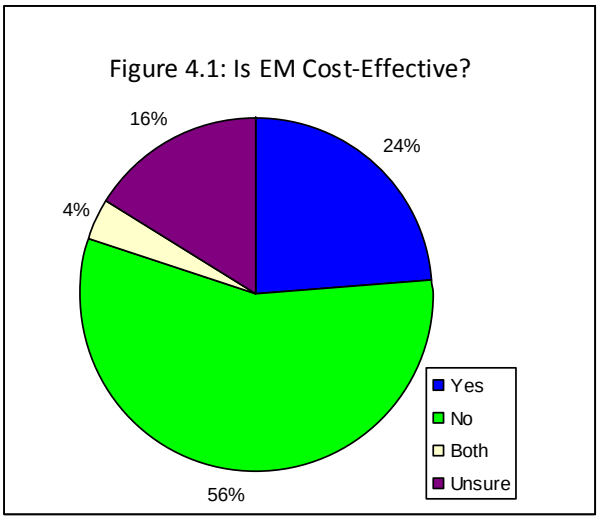
Table 4.1: Was EM Helpful for you?

RESPONSE	*f*	%
YES	**20**	**80%**
Support	8	
Kept me out of trouble	4	
Attending program and school	3	
Staying in the community	3	
Curfew; staying home	2	
NO	**3**	**12%**
Nothing will help me	2	
But, I would redo the program	1	
SOMEWHAT	**2**	**8%**
The curfew helped me; made me stay home	1	
The bracelet only helps when it is on, not once it is off.	1	
TOTAL	25	**100%**

4.1.5 Cost- Effectiveness

Staff and stakeholders were asked if they thought the EM pilot project was cost-effective. These comments are based on opinions only, and most staff/ stakeholders mentioned to the researcher that they were curious to know if the program was cost-effective or not because it may change their opinions of the program.

Figure 4.1 represents the responses from staff/stakeholders concerning the cost effectiveness of EM. Six respondents (24%) believed that EM was cost effective. One reason for this view was that youth are out in the community while they are on EM, which saves on institutional costs. Another comment was that although the EM program was expensive, ultimately it did prove to be cost-effective. One stakeholder commented that *"EM helps to catch kids faster, and that they are apprehended for non-compliance, before they can go and steal cars."* Although there is a cost to responding to tampering, when the youth cut their bracelets, some stakeholders said that, *"there was not that much overtime incurred. The quick response to non-compliance was worth the additional expense of calling out officers."*



Fourteen of the participants (56%) believed that EM was not cost effective. This may be due to the difficulty in separating the impact of EM from other components of WATSS. Another individual stated that the program is not cost effective because the youth end up back in prison. Several respondents complained that EM has never been

fully utilized, and if the province is paying to rent the devices, regardless of use, EM does not seem cost effective. One respondent mentioned all the cut bracelets and the damage to the EM devices and cell phones. "*In the long run the government has poured x amount of dollars into the program, and so many of those bracelets have been cut."* One participant added that if you look at EM economically, EM is cheaper than putting youth in jail. However, it was stated often that there is a higher need for supervision of these high risk kids which in the end costs more money. One suggestion that was made to make the program cost effective was to simply provide the youth with a cell phone because the bracelet is not effective.

One respondent stated that EM is both cost effective and not. The reason provided was that the high cost of incarceration has been reduced as there are fewer youth in custody. Some kids learn and never want the bracelet on again, and there are some youth for whom the bracelet is completely unsuccessful from start to finish. This respondent felt that EM was not cost effective with youth that seemed to be unsuccessful on the device and in the program. Four respondents said they were uncertain whether or not the EM program was cost-effective because they were unsure whether EM had incurred a lot of overtime hours for staff. One participant stated that:

> *Youth are better in the community than in jail, but only if their behaviour warrants it. When numbers are bursting at the seams, it is better to come out than to stay locked up. I feel that EM would help integrate the youth into the community, but then the discretion piece comes into play.*

Staff stated that when youth receive a Failure to Comply (FTC), many do reoffend, but that is not always the case. Overall, the majority of staff /stakeholders stated that they felt the EM program was not cost-effective.

4.2 Technology

Another category addressed in the staff/ stakeholder interviews was the adequacy of the technology. Some of the positive aspects of the technology of EM mentioned by respondents were tracking, speed, and efficiency. Staff members had the ability to verify specific locations of youth 24/7 and track youth in the community and at their favorite hang outs. EM technology allowed staff to get a list of the youth's favorite spots, and EM would allow for constant knowledge of the youth's whereabouts. Thus EM provides a lot of intelligence.

One participant stated that "*I like the speed of EM, and the ability to check on my youth all the time. It creates efficiency in my job, and increases the accountability of youth as well as my accuracy of supervision."* These positive aspects are, however, tempered by the challenges. The majority of participants (80%) stated that there were many challenges with the reliability of the technology used during the pilot, including GPS malfunctions, drift, battery, false alerts and the device itself.

4.2.1 Device and Tamper Alerts

A few staff and stakeholders discussed the importance of the instant notifications of youth tampering with their bracelets. *"When it comes to cutting, we know the minute the youth have decided to cut, whereas other kids not on EM can sneak many times before it is figured out."* The "cut and run" is something that all parties need to deal with immediately. The arrests of the offenders need to be done in a timely manner to prevent as much crime as possible. The introduction of EM has been positive in that

there has been a lot more interaction between the youth and police officers because of the 'forced' compliance that accompanies the bracelet.

Some staff/ stakeholders discussed the negative side of EM and how it has affected workload. One issue mentioned was that even though EM is active 24/7, there is not a Manitoba Youth Probation Services staff member monitoring the screen at all times. Some stakeholders commented that the youth are aware of this and rather then being compliant, they seem to be committing more crimes during the day. "*We have been surprised to see how much crime has been taking place during the day*."

In summary, the majority of staff/ stakeholders felt that non-compliance is dealt with quickly for all WATSS youth, including EM youth. The staff and stakeholder comments highlighted more assurance/ an increased level of confidence of youth whereabouts with EM. However, EM does change the workload of staff members, in terms of technology use. A conclusion drawn from the interviews was that there is no need to manage the cases differently; rather, all youth within the WATSS program should be managed the same, with or without the help of electronic monitoring.

4.2.2 Frequency of GPS Malfunctions

When the EM program first began in 2008 there were many equipment failures. Initially, there were daily location and communication failures because the information was not being broadcast through the cellular towers and thus was not being relayed back to the server. Management of the EM pilot discussed the frequency of GPS malfunctions and the need for a contingency plan in the incidence of major malfunctions.

EM management made the following statement:

> *There were often periods of time 24 hours or longer of location and communication failures, which resulted in us having to deploy a contingency plan. The plan was that if the equipment or software went down, or there was a power outage, an alternative to the monitoring and tracking of the youth would be necessary.*

Questions were raised about the software, reliability and accuracy of the device. In the beginning the software was "*unreliable, constantly crashing, and booted users out."* Updates and changes to the software included modifications to the onscreen programming to facilitate a more user-friendly approach, changes in the display of the dashboard/ homepage, and some alterations to the program writing. At the beginning of the project, there were many issues with contractors and subcontractors for the telephone service. Therefore, Manitoba Youth Probation Services was penalized, having to pay for incomplete services that were provided throughout that year. EM management commented that:

> *We were dealing with public safety and the well being of the offender. When you read the material on EM, it is sold just like any other product, with all the shine and positive elements of the product. Then when youth use the product, you find it is not quite as viral as it should be in terms of delivering promises.*

The vendor eventually solved the problem of information transfer but there have been recurrent issues with the equipment failures. For example looking at the beginning of the pilot in April 2008 to April 2010, if the equipment was plugged into the charger it could still go into location/ communication failure. Although the equipment failures were occurring less frequently, they were still occurring. One staff/stakeholder respondent stated *"that [the technology] was the biggest downfall and hindrance of EM."*

Some of the problems that still remain include devices not holding charges, not charging properly at all, or entirely defective devices. It was suggested that other types of technology besides active GPS may be more appropriate and more cost effective for this group of offenders such as a Radio Frequency (RF) device or any other more reliable EM device.

4.3 After effects of EM

Youth were asked how their lives had changed once the bracelets were removed. Some youth (40%) stated that their life was better and more positive after EM because there was no longer anybody watching them, they had more space, personal positive attempts at change, and that they had been thinking differently. For example, one youth told the researcher that EM helped him/her to make better choices. "I try to make positive choices now. I want to try and stay out this time. I have a baby now; things in my life are more serious." Some youth (23%) mentioned that they had babies now and needed to make more positive choices in their lives and said that EM had positively influenced their lives. One youth commented:

> *I made my life more low key. My life was more positive. I started wanting things I had never thought of before. I wanted to try and get straight. I wanted to live some dreams, like maybe going to school. I admitted defeat after the bracelet. But then I do stupid things like get drunk and high on pills and cannot control myself. Now I am in for robbery. For me, I would steal cars when I was going through something mentally, it was my outlet. Instead of living with pain, I would commit crime. Then go to jail, which is good because I am too suicidal on the streets. I take it out on my friends and hurt them physically and mentally.*

On the other hand, many youth (32%) mentioned that their life was much worse after EM. Some youth described that EM allowed them to stop stealing cars, but pushed them

in the direction of other crimes such as drinking, possessing and trafficking drugs, robberies, and break and enters. A few youth illustrated:

> *My life was worse after EM. I stopped stealing cars, but I started doing other crimes instead. I realized there was more money in B&E's than breaking into and stealing cars. I did not want that bracelet, but it did help me stop stealing cars, but I have moved on to more severe crimes.*
>
> *I knew I was on the run. I started drinking again and just kept messing around.*
>
> *EM did make me look at life in jail and I did not want to come in here anymore. Now, I don't think about stealing cars. But, all this is easier said then done, now I am in for breaches and pending charges for Robbery times two.*

One youth commented that after completing the program, there was a necessity to celebrate, which turned into an arrest.

> *I knew no one was watching me. I was so excited that I wanted to steal a car immediately. I would drink and what not because I did not have the bracelet on. I completed the program- but got picked up right after.*

The remainder of the group (28%) stated that their life was the same after EM. Most youth commented that they still continued on the same life path as before they were in the program. One participant remarked that after EM he/she breached probation and went on the run:

> *I breached, took off and stayed with some friends. I was partying for about 5-6 months straight, drinking and doing drugs. I was with the people I was not supposed to be with. I turned myself in because I was tired of running. The Stolen Auto Unit was rushing my friend's houses and would tell them that they would not stop until I turned myself in, so I was forced to do that.*

4.3.1 EM Expansion

In terms of overall program support, approximately one third (35%) of staff did not wholeheartedly support EM, commenting that EM is helpful to an extent, but does not

make a difference in the big picture. However, the majority of the staff (65%) supported the program and many commented that they would like to see it continue. The idea of expansion of the current pilot project to a wider spectrum of offences and offenders was discussed with the staff/stakeholders.

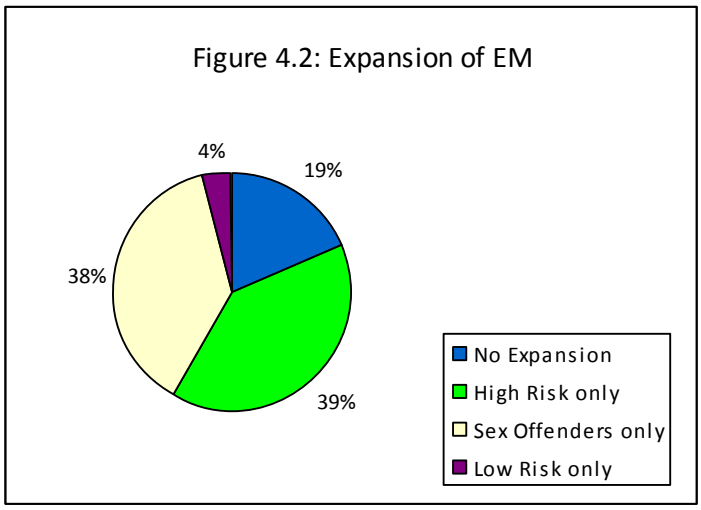
4.3.2 Low Risk versus High Risk

Three quarters of respondents (77%) stated that expansion of EM should be applied to high-risk individuals only[7]. One suggestion was that if the program was expanded to high-risk offenders that everyone should be on an absolute curfew or the program would not be effective. Respondents generally felt that anybody high risk and dangerous to the public should be placed on EM.

Historically, EM began with the tracking of sex offenders and according to one staff member, "*that is a good place for EM to stay. Kids that steal cars, will steal one in front of their door step – they don't give a shit about the bracelet."* Another individual added, "*Nova Scotia uses EM for sex offenders. I think society would prefer to know where a sex offender is as opposed to a car thief*." Notably, approximately one third of the staff/ stakeholders (38%) that agreed with EM expansion (77%) to high risk individuals felt that the expansion should be restricted to sex offenders only.

[7] A variety of offences were included: murderers, gang members with drug offences, violent offenders, violent/ repeat robbers, aggravated assailants, domestic violence, auto theft for adults, and sex crimes including sex offenders and pedophiles.

Figure 4.2 shows the breakdown of the respondent's answers to the expansion of EM. Only one individual stated that expansion should be to low risk groups only.



They stated that if it were to be expanded, "*it should be expanded to individuals who are low risk of flight, or people who are highly amenable to respecting conditions, which would make you wonder why you would need EM to monitor them in the first place*." Finally, six respondents (23%) expressed concern about the idea of EM expansion in any form. Some of these respondents stated that EM needs too many resources, and that with the current program there are not enough resources provided, therefore, expansion would be difficult and not recommended.

4.3.3 Expansion of EM: Youth versus Adults

Approximately two thirds of respondents (69%) felt that EM should be expanded and used for both youth and adults. All respondents in this category agreed that the expansion would need to be careful and selective of the targeted groups.

Two individuals (8%) responded that any expansion of the EM program should continue focusing on youth and not adults. The respondents said that until the EM

program is perfected with youth that it would not be a good idea to bring it into the adult system as the adult system is a lot less centralized. On the other hand, four participants (16%) believed that expansion of EM would work best with adults only. A few staff/ stakeholders mentioned a program in Nova Scotia that is running with adults and appears to be more effective than the current pilot program is with youth.

Finally, six staff/stakeholders (23%) responded that the program should not be expanded and reasoned that the program is not cost-effective and expansion should only occur if there is another epidemic like auto theft. The idea of expansion had mixed reviews among staff and stakeholders. However, it was suggested that if expansion of EM did occur, it should not be based on the age of the offender; rather, it should be based on the severity of the offence, with the final discretion resting with the offender's case manager.

4.4 Impact of EM

The purpose of this section is to examine the impact of EM on staff, stakeholders, youth, youth families and programming/ schooling.

4.4.1 Impact on Staff

Staff, including, probation officers, ATSW's, ISSP's, and EM workers, were asked about the impact EM had on workers at Probation Services. One of the main issues was that of positive and negative changes in worker caseloads because of EM.

Extra workload.

Twelve of the seventeen (71%) staff interviewed felt that EM added to their workload in ways such as staffing, extra training, equipment, computers and paperwork (i.e.: online criteria, reports, breaches and suspension reports.) These staff suggested that EM added another dimension of work, having to physically check if the youth were wearing the device. These staff additionally commented that the youth in WATSS are already high needs youth and that EM added to that dimension. Two staff stated that working with EM *"is double the work load"* and regular staff caseloads are enough without EM.

Less workload.

Approximately one-third (29%) of the respondents stated that there was less workload with EM. Individuals in this group were the people who worked more directly with EM than did the respondents who felt EM increased workload. These staff commented that EM has made certain everyday tasks easier including reminders, curfew checks and reports. One staff member discussed the ability to check a youth's activities online with Omnilink every morning and how it allowed them to deal with issues immediately rather then letting the situation spiral out of control. This participant also stated,

> *I think EM is a preventative piece. There were a lot of cut and runs, but I was not writing as many breaches, PSR's [Pre Sentence Reports] and other stuff because the guys were out in the community longer then they were without EM.*
>
> *Many Level 4a and 4b youth have strict curfews and those who are on EM are easier to locate, track and manage. EM does not add much work at all. Workload is the same, if not less with EM because there is less communication with the kids on the bracelet.*

Overall, individuals who stated that EM did not provide more work thought it was better to have youth on EM than not because of the ability to track the movements of the youth and address non- compliance sooner.

Power shift.

Fifteen out of twenty five respondents (60%), brought up on their own an issue of a shift in discretionary power due to EM, though many had contrasting views. Of these respondents, some (29%) reported that EM provided them with more power than regular supervision. "*With EM, I know everything from where the youth are, to their historical locations."* These participants reported that EM gave them the ability to provide higher levels of supervision because staff know where the youth are at all times, though not necessarily what they might be doing.

Seven staff (28%) commented that EM affects case management, suggesting that more individual discretion is needed in the following areas: the case management plans, risk level, cognitive and personality factors, and the length of time that the youth will be in the program. With the implementation of EM, discretion has become a black and white area – there is no longer any grey. One staff member stated,

> *EM is run in a very black and white way. Even if a youth has been doing fairly well in other areas, Probation Officers have zero discretion when it comes to non-compliance. I am not talking about criminal activity, but if they are late for curfew etc. When EM first began, staff raised questions if we would be criminalizing behaviour, and we have criminalized youth's non-compliance. For the longest time there was no criminal charge for cutting. Now, youth are charged with mischief, and sometimes restitution is requested through insurance. And, if the police cannot find the cell phone the youth are charged with theft under. When these kids are from families that live below the poverty line- good luck getting the money; it is not going to happen.*

Working in the office versus in the community.

Some respondents (64%) felt that EM hinders Probation Services because the monitoring is replacing community work. Many staff mentioned that with the use of EM, their daily contact with the youth was decreased substantially. One probation officer stated that *"EM is taking over our work because kids are not seeing the EM worker as they would see their regular ATSW."* Some staff/ stakeholders felt that the EM program meant that workers would verify the location of their youth via the computer, eliminating their presence in the community. Thirty-six percent of participants stated that the EM program is not necessary because there is no need to supervise the kids more than what was already taking place within WATSS. For example, for WATSS level 4 youth curfew enforcement is already carried out by the EM workers who are tasked to check on them. Some youth were given an ATSW on top of an EM worker – and in this case it would be the EM worker who completes the curfew checks. Two staff questioned if it was really necessary to add an EM worker to that list, as it seemed "overkill" to have too individuals watching each youth.

Overall, respondents said that EM has been more of a help than a hindrance. Over half the group (58%) stated that EM was helpful, whereas one third (29%) of the respondents commented that EM was a hindrance and the remaining (12%) said that EM was both a hindrance and a help. These staff said that EM was helpful for tracking purposes, but that it does create an extra workload, extra staffing, need for more equipment and additional paperwork.

4.4.2 Impact on Stakeholders

The stakeholders consisted of staff from the Winnipeg Police Service Stolen Auto Unit and Crown Attorneys. Eight of the nine stakeholders (88%) supported the EM program. The police interviewed were positive about the utility of EM. They reported that even though there were some negatives about the program, such as issues with the technology, these negatives were counter-balanced with positive features such as curfew, in person checks and workload benefits. According to the WPS, level 4A and 4B youth with or without EM should be monitored the same. However, EM has enhanced location whereabouts and has cleared up more time for curfew checks of non-EM youth. One officer discussed,

> *We know that their worker knows if they are home or not and whether they are home at curfew or not, so we are covered that way. And, then the minute something happens they can notify us and we respond fairly quickly. So, it has been really helpful that way. Especially when it comes to cutting, we know the minute they have decided to mock all the rules.*

The difference for the police in monitoring youth on EM and youth not on EM was the frequency of visits. Ultimately, EM has reduced workload for the police. One officer added,

> *The only difference is the EM youth might not get checked as much in person. Because they are on a bracelet, we assume they are home. Just because they are home does not mean they are not drinking or doing something else.*

*A*lthough EM eases the pressures of curfew checks, the police still have a large number of youth that need to be monitored. Thus, EM has allowed for the police to check more on the youth not on EM because they rely on the technology to alert the staff if failure to comply has occurred among the EM youth.

The general consensus for the crown attorneys was that EM did not have an impact on workload, that the workload remained the same for youth on EM or youth not on EM. One respondent stated:

> *EM has helped staff; it is another component. From the prosecutorial aspect of it, EM certainly helps ensure that offenders who are released into the community have that extra monitoring step and if they are found guilty of breaching their EM conditions then they are accountable for that breach.*

In addition, another respondent added: "*If there is a breach of EM conditions, they [the youth] can be detained rather quickly, so that they can be taken off the streets. Ultimately that leads to a reduction in auto theft."* The crown attorneys interviewed stated that EM provides a good way of allowing youth to remain in the community rather than being held in custody. Also, EM makes prosecuting youth offenders for breaching their conditions easier because of the availability of electronic data rather than other location/ whereabouts evidence.

4.4.3 Impact on Offenders

Positive views from youth.

When youth were asked about positive aspects of EM (see Table 4.2), most had more than one comment so the percentages add up to more than 100%. The majority (84%) stated that EM helped them with compliance, while 67% reported that being in the community was one of the best benefits of the program. Other positive aspects were being with family, saving face with peers, and extra support that accompanied the program. One youth stated that, "*EM is like rehab. It helps you have a reason to quit and*

get back into the community. My friends stopped harassing me to steal cars because of the bracelet."

Table 4.2: Positive Views of EM	
RESPONSE	***f***
Compliance Knowing someone is watching you all the time keeps you out of trouble; Curfew; Attending school/ program; Not breaching orders	**21**
Community Being in the community or "longer on the outs"	**17**
Gets you out of custody	6
Friends Saving face, friends would visit	5
Being with Family	2
Support	2
* Some youth stated more than one positive view of EM	

Negative views from youth.

When youth were asked about the negative aspects of EM (see Table 4.3), most youth had more than one comment so the percentages given add up to more than 100%. Many of youth offenders (68%) indicated that charging the bracelet was the worst part of the program. Other negative aspects reported were: being labeled in the community (44%); being watched (52%); and the bracelet was uncomfortable (44%). One fifth of the youth (20%) complained that there was too much support with EM (meaning they were being supervised too closely), and also questioned whether they should be allocated more chances while wearing the bracelet.

Table 4.3: Negative Views of EM	
RESPONSE	***f***
Charging	**17**
Being Labeled Being judged, not being wanted because of the bracelet, feeling embarrassed, EM kept me on a tight leash, it's too harsh, it's fucked up; being called names	**11**
Being Watched The Police/ PO are always watching so no privacy; Cops terrorize more; They can track your location and your curfew	**13**
Uncomfortable Leaves marks, bruises; Hard to play sports with it; Sleeping with it on was annoying	**11**
Cell Phone Annoying; Cannot use it for anything- tease phone; Always having to answer it	**4**
Support Too much support, it was annoying.	**5**
Other A waste of time and money; media would not leave me alone; it was easy to take off	**4**
* Some youth stated more than one negative view of EM	

Youth offenders were asked about the physical and mental impact of wearing the bracelet. Several youth (40%) complained about the physical aspect of EM. Comments were made about the bracelet causing marks, scratches and bruises and some youth complained that EM was uncomfortable, hard to get used to when playing sports, awkward during sleep and when taking showers. One youth said that they would hide their device with a bandana to avoid questions from their friends about the device and stigmatization; if friends asked they would be told there were drugs underneath the bandana. Overall, youth commented that they barely noticed the bracelet after awhile, whereas other youth complained that once it was removed, their leg felt "naked" and/ or one calf muscle was noticeably larger than the other.

Many youth commented about the mental impact of wearing EM. Approximately half the youth (48%) stated that EM affected them mentally. Some said they felt claustrophobic with a device on, whereas others mentioned they were ashamed of themselves. A few youth (8%) stated that they thought about it constantly and some youth (12%) said that being watched/ tracked in the community kept them from committing crimes because they did not want to get caught. One youth explained *"the areas I was allowed in were stupid. I would get so annoyed when my worker would always know where I was and what I was doing. That shit was annoying and it happened all the time."* Another youth discussed EM acting as a mental and physical reminder for second thoughts to occur. The youth commented that:

> *Sometimes I would think twice about committing a crime. My decision to do something bad depended on my mood, how the day went, who was out in the community, the time of day and how many police officers were out patrolling.*

Overall, most youth that commented about the mental aspects of EM stated that the device stressed them out more than regular probation.

This section examines the impacts of EM on youth offenders through the eyes of the staff/ stakeholders and the youth. Positive and negative views are discussed below.

Positive views from staff.

Staff mentioned several positive features of EM from the perspective of the youth: the accompanying cell phone; avoiding negative peers; and a tool to aid with compliance. According to the staff, youth really liked having the cell phone provided with the EM device as one of the youth stated "*it helped when I was in a crutch [sic] and I need to*

talk to my worker." If the youth felt in a bind and needed someone to talk to they could call a support staff, who could help them through their problems.

Youth also reported to their workers that EM helped them to avoid negative peers. Some youth told their workers that EM is useful when dealing with peer pressure and sometimes helps to avoid peers completely. At times youth will use EM as a crutch; but staff/ stakeholders commented that often youth depend on EM a little too much which is not necessarily a good thing. It was mentioned that some youth ask for EM to "*help them save face with some of their negative peers*," in order to avoid being a part of criminal activity.

Some youth use EM as a tool to help them succeed or complete their conditions. The respondents stated that youth have asked for EM to be a condition on their orders promising that it would help them control their behaviour. A few staff/ stakeholders stated that EM is great as an external brain for FASD youth because it works as a constant reminder to abide by the rules. The final positive view expressed by youth to their workers concerned police investigations. For some youth, EM has helped verify their locations and demonstrated that they were not at the scene of a crime.

Negative views from workers.

Staff mentioned a few negative features of EM which were reported by the youth: overall negative views, labeling, and avoiding EM in the future. According to the staff/ stakeholders, most youth's attitudes about EM were fairly negative, but that may be due to the bracelets being a punishment for their actions. The major complaints from youth were that the device was uncomfortable, and that it took a long time to charge

the bracelet. Other complaints were that time on EM was too long, not wanting the restrictions that accompanied EM, it was too easy to remove; EM was a joke causing them to want to cut the device, EM is embarrassing because the public label them as car thieves, and EM acted as an extra conscience which they did not need nor want.

Labeling was another negative aspect of EM. Although some youth were proud to wear the device because it provided them with some status with their peers, most complained about people in the community labeling them, causing embarrassment and low self esteem. Youth especially disliked having their peers label them because of the bracelet. Most youth have reported being called names like "heat score" – meaning peers may not want to associate with the youth wearing an EM bracelet because of the "heat" (attention from police and probation) they bring.

Lastly, staff/stakeholders reported that the youth wanted to avoid EM in the future. These youth complained that EM was overwhelming, stressful, caused skin irritations, made sleeping difficult, and was an invasion of privacy. Respondents reported that many of the youth have described how much they hated having someone always watching their movements and that EM is not necessary and is going too far. One youth stated to their worker that "*EM is an intrusion in my life*." Some youth felt like they were animals on a leash, one respondent stated "*I feel like a dog on a tight leash, but that in the long run it has helped*." Also, many youth have stated that more police are around when they are on EM which makes them feel more locked in with the bracelet in the community than they feel when they are in custody.

The impact of EM on youth's daily routines.

Youth were asked how EM impacted their daily activities and what if any changes occurred due to EM. A number of youth (40%) commented that they did not make any changes to their daily activities. Additionally, one third of individuals (28%) stated that they only slightly changed their daily activities. Some youth in this category stated that they would hang out and party with their friends, but typically more from home than going out to friend's houses. One youth commented, *"I didn't want people to know I had the bracelet on. I was limited to where I could go. I still partied during the night time and would sleep all day."*

One quarter of respondents (24%) stated that they changed their daily activities drastically. These youth said that they could not party as much, and their friends stopped hanging out with them because they were "heat scores." Often youth would stay home and wait for their friends to come over. One youth stated,

> *I changed everything. I couldn't even wear work boots, because it would hit that fucking thing. My sleeping patterns changed, because the bracelet was so uncomfortable, or they would call me in the middle of the night to charge it. I stayed home for the first 10 days because of house arrest. Then, after that I stole cars, [and committed] B&E's and Robberies.*

Finally, two youth (8%) reported that EM helped them make more positive life choices. One individual pointed out that he/she was working with his/her mentor more, attending programs more often and attending school. These youth suggested that they were more likely to make positive life choices while wearing the EM device.

4.4.4 EM's Impact on Friends of EM Youth

Only a small number of youth (11.5 %) stated that EM had positive effects on their friends. One youth mentioned that their friends would tell them to hurry up and get it over with and everything would be "all good". Another youth stated, *my positive friends did not care. My negative friends did not like it at all. They called me heat bag and would not hang around with me. So, when I was on EM I hung out more with my positive friends."* This youth hated that his/her loved ones were being neglectful and knew *"at that moment I had to change; I did not want this treatment anymore."*

Nearly half of the youth (38.5%) stated that EM negatively affected their friends. One youth said their friends were:

> *Always laughing all around me and at me. A couple of friends were doing not very good things around their house like dealing drugs. I was a heat bag that the cops were always following around because I had the bracelet; if they ever got caught doing things, it was always on me.*

One-third of the youth (31%) commented that EM had a neutral affect on their friends, because most of their friends had a bracelet on too. The remaining youth (19%) did not respond. During the initial phase of data collection, concern was expressed to the researcher that many youth wearing EM were taking pictures and posting them online on social networking sites. Social networking has been a recent phenomenon for individuals to keep in touch. Some of the popular sites are MySpace, Facebook, Bebo, Friendster, xanga.com, hi5, Twitter and linked-in.

Most of the youth (84%) reported using social networking. However, only a portion of that group (40%) acknowledged sharing information and posting pictures

about EM on these sites. One youth stated*," I wanted to show people how we were being treated, to say it was garbage and that we were being treated like animals*." Another youth added, *"I posted pictures to show people I had not seen in a long time. I wanted to show them it was mine."* The other 60% of youth denied using social networking to promote their bracelets. The researcher went online to verify the statements provided by the youth in this category. This search found that over half the youth who had responded no to using a social network had actually used the networking sites to reveal information about their bracelets.

4.4.5 Families/ Guardians of Youth on EM

Staff/stakeholder views.

According to the staff/ stakeholders, electronic monitoring had a mixed impact on the youth's families. Probation officers reported that approximately 90% of comments from families concerning EM were positive. Parents liked the cell phones provided, EM took the heat off the parents from being the bad guys, EM is good for keeping their kids straight (some parents even commented that their kids "need EM forever"), and finally, EM forces their kids into compliance. Parents were also very supportive of EM and its help with curfew compliance, stating that they liked that their youth stayed home and were not sneaking out at night.

On the negative side, the stakeholders and staff reported that generally families complained that EM was too harsh/ punitive and that the periods of monitoring were too lengthy for their youth. Some parents stated that EM "*should be reserved for the murderers of the world, my kid is not that bad.*"

Sometimes parents are opposed to the bracelets when the youth have to put them back on, because youth can be breached and suspended more easily on EM than without it. A frequent complaint about EM is that it is often accompanied by extra police attention. Families say that police are at the door more often, "*which results in less criminal activity for the whole family and/or friends that associate with the youth.*" According to one staff/ stakeholder the problem with most of the EM youth was family support: *"for the most part these kids are good, or have good qualities. However, their parents do not care. The parents see EM as affecting their life and time for [hobbies].* "

Families also expressed concern that EM interfered with family time. One parent told a probation officer that "*it is not my responsibility – he is the one that has to change; it is not me (parent) on probation."* Often families did not plan ahead and EM got in the way of holidays. For example, if families wanted to go away on holiday out of Winnipeg, they would not be able to because their youth was being monitored by EM. Finally, some parents/guardians do not like the way the bracelet meant that their child was labeled by the public and the media.

Youth perspectives.

Approximately half of the youth (48%) interviewed indicated that EM had a positive effect on their families. These youth responded that their families liked having them at home rather than in custody. Some youth (36%) stated that effects on their families were neutral. A few in this category said that they resided in a group home, and therefore were unsure how EM would affect their family, while others said that there

were both positive and negative responses to the bracelet in their households. One youth said that EM caused disputes in their household:

> *My friends would come over and we would party at my house – my mom didn't like that. We partied every day and she would get mad, trip out and bitch at me to turn the music down. When she was in my face I would feed her pieces [crack] until she left me alone.*

Another youth remarked that the bracelet brought feelings to the surface in their household. "My *family was embarrassed for me, they were ashamed of me and for me, they were afraid of me and for me, they made fun of me and they made it hard for me."* Finally, a few youth (16%) did not respond to this question. None of the youth commented that EM had a completely negative impact on their families.

4.4.6 Impact on Programming and School Attendance

Staff/ stakeholder views.

Respondents reported that there had been many growing pains with schools and programs that were associated with EM, such as cell phone use during hours and expectations for the youth to always be available for their workers. However, for the most part staff reported that the schools believed that EM was beneficial because it encouraged the youth to attend school. One staff member said he/she had been told by a youth's school that "*school attendance is built into EM- which is demonstrated because once youth are off EM, attendance always declines."* Staff also reported that some school officials stated that *"EM is a tool to help remind kids where they are supposed to be."* The one issue that the schools had with the program was the

distraction the youth's cell phone caused. Thus, some schools and programs would decline to admit youth on bracelets.

One of the community programs that EM youth have attended commented to staff that EM is not beneficial for youth because it does not teach them responsibility. Officials from this program reportedly felt that EM is just a shackle for them, and when they do things like go to sweats or ceremonies the bracelet is only a hindrance. Following this idea, Probation Services have been mindful and have adjusted the expectations for those youth; for example, they allowed the cell phone to be turned off when the youth were participating in programs.

Elders in communication with youth on EM have expressed their dislike for the program. According to staff/stakeholders, native elders stated that if a youth had cut the bracelet 4 times, to not put him back on it because it clearly does not work. Their perceptions of corrections are different, as elders have a restorative approach which does not fit well with the philosophy of programs such as EM.

Youth perspectives.

The impact of EM on youth school and program attendance was discussed by some of youth. A few (19%) said that EM helped them attend school and programs and worked as a reminder for them. One youth commented, "*I like EM because it makes me go to school."* One youth stated that he/she did not attend school with EM or without because it was their responsibility to help take care of their siblings and household chores. No youth participants mentioned EM in connection with program attendance.

4.5 OTHER FINDINGS

This section discusses other findings from the staff/ stakeholder interviews including: net widening and the legal aspects of EM.

4.5.1 Net-Widening

One of the main criticisms of EM is its capacity for net-widening (see: Padgett et al, 2006; Lilly, 2006; Nellis, 2006; Clear and Cole, 2003; Renzema, 2003; and McMahon, 1992). Net-widening increases the scope of corrections by applying a program to people charged with offences less serious than those of the people the program was originally intended to serve (Clear & Cole, 2008). Net widening can also occur if a program creates conditions that entail an increased likelihood of technical violations such as a breach of a curfew order. To see if this applied to Winnipeg's EM program, respondents were asked if EM had caused an increase in the number of offences recorded.

The response to that question was that there has not been an increase in non-technical offences, such as auto theft, break and enters or other similar criminal charges. However, it was suggested that "*there is a potential that we have more curfew violations that have occurred, and they have been detected earlier because of the electronic monitoring device.*"

It is important to understand that all the high-risk youth in WATSS are under very strict curfew checks which can sometimes occur every 3 hours. EM allows for Probation Services to be aware of non-compliance earlier for the youth in the monitoring program and to respond immediately, whereas other WATSS youth not on EM often go longer before their non-compliance is detected. Two respondents stated:

> *There is a greater propensity for charges because you are more apt to catch it with an electronic monitoring device on an ankle, than you would if you were just checking on the kid once a week, to see if they were home. Thus, you have not necessarily widened the net; what you have done is made the net finer for that group.*
>
> *Fail to complies/ non compliance are higher with youth on EM. When kids are on EM and things are going well at home and in school, that is what reduces recidivism rates. If on EM, home is breaking down, no school or program- EM does nothing but create a ton of FTC's [fail to comply].*

The question remains, did EM reduce levels of non-compliance or create more incidents? One staff member provided the following explanation:

> *The more you put kids under a strong microscope, the more you become involved in levels of non-compliance. You widen the net because you know everything that is going on. For example, look at high-risk girls, that have a high risk to reoffend, but not for auto theft related offences. Girls have a high level of non-compliance. Look at their general state of life, wards, or voluntary placement with Child and Family Services; it creates early trauma. When child welfare is involved, and youth are placed somewhere, based on resources available, they typically do not remain there. Often they have direction to stay in residence- if they leave then it is considered a breach, which results in new offences for child welfare reasons. Placements are not satisfied with the girls, and the girls get criminalized for their FTC's [fail to comply].*

The respondents felt that EM neither reduced levels of non-compliance nor did it necessarily cause more non-compliance violations. Rather staff/ stakeholders were aware of the violations sooner and were able to take immediate action. Notably, forty four percent of staff suggested that the bracelets were only a short term fix and did not perform in the long run.

4.5.2 Legal Aspects of EM

The Youth Criminal Justice System (YCJS) has been criticized because of its overuse of custodial sentences (Minaker & Hogeveen, 2009). Until 2004, Canada's youth

incarceration rate far surpassed the American rate. This high rate of youth incarceration led to the implementation of the Youth Criminal Justice Act, aimed at reducing the number of youth in prison with property and non-violent offenses (Minaker & Hogeveen, 2009). Therefore, the Youth Criminal Justice Act has a wide range of non-custodial sentencing options which include reprimands, intensive support and supervision[8], non-residential program or attendance order, and deferred custody and supervision[9]. Under the YCJA, all custody sentences need to have a mandatory period of supervision in the community, which can be up to half as long as the custodial period, and the periods combined must not exceed the maximum sentence length specified in the YCJA (Minaker & Hogeveen, 2009.)

Electronic monitoring is a community-based option that can be accompanied by a deferred custody order, a community supervision order, or probation. Some staff/ stakeholders suggested that there should be an order for youth to require the assistance of EM. According to staff/ stakeholders, in several instances, EM was not indicated in the court orders, but was later added as part of the community sentence order. However, when EM is specified as a condition, the exact wording is crucial. For example, the condition should be clearly labeled: to attend, participate and complete EM as directed. If the wording does not state as directed, Probation Services does not have the authority to apply EM to the youth.

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8 The intensive support and supervision program (ISSP) can be described as "similar to probation; the ISSP order is served in the community under conditions, but an ISSP [worker] provides closer monitoring and support than probation. Almost one-fifth of sentences imposed under the YCJA include one or more of the new sentencing options" (Calverley, 2006 as cited in Minaker and Hogeveen, 2009, p. 105).

9 According to Calverley (2006 as cited in Minaker and Hogeveen, 2009, p.105) deferred custody and supervision "allows a young person, who would otherwise be sentenced to custody, to serve his/her sentence in the community."

The staff and stakeholders were asked what kind of legal issues were involved with EM. One of the issues that arose within the interviews was that the pilot was never designed to replace custody. Some police believed that bracelets were being distributed instead of custody sentences, or EM was being used as a measure to release youth on bail who should have remained in custody. Nine of the staff/ stakeholders (35%) stated that in the initial phases the courts needed to have better communication with WATSS. According to these respondents, there were several instances where EM was imposed by the courts when it should not have been. Another legal issue that was raised by 5 of the staff/stakeholders was the use of EM on youth with Fetal Alcohol Syndrome. Some staff/ stakeholders commented that if you place an FASD youth on EM, for the most part they do not understand the orders and cannot draw a link between behaviour and consequences. They are impulsive kids and they will get breached on EM due to their disability. This area needs further research.

4.6 SUMMARY

Perceived Success of EM

Offender Accountability. Most of the staff/stakeholders and management felt that youth on EM were more likely to be compliant than high-risk youth not on EM. The majority of youth reported that EM helped them to comply with their conditions.

Recidivism. Slightly over half of the staff/stakeholders and management respondents felt that EM did **not** reduce recidivism. Many of these respondents felt that EM only delayed offending and returned to their delinquent ways when the

bracelets were removed. About one-third of staff/stakeholders and management believed that EM did reduce recidivism rates, though their comments suggested that they were actually focusing on the impact of the bracelets rather than the longer-term impact of the EM program.

Sixty percent of young offenders felt that the overall impact of EM was to reduce crime in the community. Almost half the youth reported that their experience with EM would make them less likely to commit auto theft and one-third reported that they would be more likely to steal cars when the bracelet was removed. Fifty-six percent of the youth stated it would be a good idea for serious auto theft offenders to have EM.

Public and Staff Safety. Almost half of the respondents felt that the public supported EM because they believed it provided additional safety. However, many respondents felt that EM had been oversold and that people were realizing that it wasn't a panacea. Only one-third of the youth felt that the public perceived EM to have contributed to public safety.

Support and Interrupting the Offending Cycle. The majority of the offenders (80%) on EM stated that the program was helpful, with the most beneficial component being the staff support by staff.

Impact of EM on Youth. Youth were asked how their lives had changed once the bracelets were removed. Some youth (40%) stated that their life was better and more positive after EM because there was no longer anybody watching them, they had more privacy, personal positive attempts at change, and that they had been thinking differently. On the other hand, many youth (32%) mentioned that their life was much

worse after EM. Some youth reported that EM allowed them to stop stealing cars, but pushed them in the direction of other crimes such as drinking, possessing and trafficking drugs, robberies, and break and enters. The remaining 28% stated that their life was the same after EM. These youth reported that they still continued on the same life path as before they were in the program.

Impact on Staff. Overall, respondents said that EM has been more of a help than a hindrance. Over half the group (58%) stated that EM was helpful. Whereas one third of the group (29%) commented that EM was a hindrance, while the remaining respondents (12%) said that EM was both. These staff said that EM was helpful for tracking purposes, but that it does create an extra workload, extra staffing, need for more equipment and additional paperwork. Despite this positive assessment the majority of respondents (64%) felt that EM hinders probation work because the monitoring is replacing community work.

Stakeholders (police and crown prosecutors) were also asked about the impact of EM. The vast majority (88%) supported the program. The police reported that EM reduced their workload because the EM youth did not need to be checked unless there was a violation. The crown attorneys did not feel EM had an impact on their workload, though they did mention that the electronic data made it easier to prosecute youth for breaching their release conditions.

Net Widening. Respondents felt that EM neither reduced levels of non-compliance nor did it necessarily cause more non-compliance violations. Rather staff/ stakeholders were aware of the violations sooner and were able to take immediate

action. Forty-four percent of staff suggested that the bracelets were only a short term fix and did not perform in the long run.

Chapter 6 will synthesize the qualitative and quantitative findings in relation to the research questions stated earlier in the report, examining if the goals and objectives of the EM pilot are being met.

CHAPTER FIVE

QUANTITATIVE ANALYSIS OF EM:

This chapter provides an empirical analysis of quantitative data to evaluate the effect of electronic monitoring (EM) on youth wearing the device. The groups in the evaluation are referred to throughout the chapter as:

- EM Group: Offenders who were placed on EM at some point in their community supervision period.
- Non- EM Group: Offenders who are NOT placed on EM during their period of community supervision. This group is also referred to as the comparison group.

The chapter is divided into five sections: section 5.1 discusses the participant characteristics; section 5.2 looks at the differences between and within the two groups in relation to daily contacts between youth and their workers; section 5.3 examines the difference between and within both groups for criminal behaviour; section 5.4 discusses the success of the EM program; and section 5.5 summarizes the chapter.

The statistical significance used for the quantitative data is set at a probability level of 0.05. However, if interesting findings were revealed at 0.10 they were indicated, but stated not statistically significant.

5.1 Participant Characteristics:

Data was obtained from the Corrections Offender Management System (COMS) and the Criminal Courts Automation Information Network (CCAIN) to determine a detailed profile for the Level 4a and 4b WATSS youth on EM and for the comparison group. Youth were originally matched on several variables including age, gender, race/ ethnicity, living

arrangements, education and employment status, gang affiliation and membership, risk level and age of first charges and convictions.

Age

Youth in the EM group were slightly older, with a mean of 17.2 years compared with 16.8 years for the comparison group (Table 5.1). This difference was not statistically significant.

Table 5.1: Age of Youth								
TOTAL SAMPLE			***EM***			**COMPARISON**		
Mean *17*			**Mean** 17.2			**Mean** *16.8*		
SD *1.22*			**SD** 1.02			**SD** *1.38*		
Age	***f***	***%***	**Age**	***f***	**%**	**Age**	***f***	**%**
13	1	1.1	13	0	0.0	13	1	2.4
15	9	10.3	15	4	8.9	15	5	11.9
16	19	21.8	16	6	13.3	16	13	31
17	25	28.7	17	16	35.6	17	9	21.4
18	27	31	18	17	37.8	18	10	23.8
19	5	5.7	19	2	4.4	19	3	7.1
20	1	1.1	20	0	0.0	20	1	2.4
TOTAL	**87**	**100.0%**	**TOTAL**	**45**	**100.0%**	**TOTAL**	**42**	**100.00**
Independent samples t-test value= -1.32 ; sig= 0.19								

Gender

Almost all of the youth in both groups were male (93%), but there were three females in each group (Table 5.2). The gender difference was not significant.

Table 5.2: Gender								
TOTAL SAMPLE	***f***	***%***	***EM***	***f***	***%***	***COMPARISON***	***f***	***%***
Male	81	93.1	Male	42	93.3	Male	39	92.9
Female	6	6.9	Female	3	6.7	Female	3	7.1
TOTAL	**87**	**100.0%**	**TOTAL**	**45**	**100.0%**	**TOTAL**	**42**	**100.0%**
Chi square (x2)= .01; sig= 0.93								

Race/Ethnicity

The majority of youth in both groups were Aboriginal (100% of the EM group and 90.5% of the Non-EM group) (Table 5.3). There were no significant race/ ethnic differences between the two groups.

Table 5.3: Ethnicity

TOTAL SAMPLE	*f*	*%*	*EM*	*f*	*%*	*COMPARISON*	*f*	*%*
Status Indian	52	59.8	Status Indian	25	55.6	Status Indian	27	64.3
Métis	25	28.7	Métis	16	35.6	Métis	9	21.4
Non Status Indian	6	6.9	Non Status Indian	4	8.9	Non Status Indian	2	4.8
Non Native	2	2.3				Non Native	2	4.8
Unknown	2	2.3				Unknown	2	4.8
TOTAL	**87**	**100.0%**	**TOTAL**	**45**	**100.0%**	**TOTAL**	**42**	**100.0%**

***Note: The category names for ethnicity were extracted directly from COMS.**

Chi square (x2)= 6.61 ; sig= 0.16

Living Arrangements

According to staff and stakeholders the majority of the youth resided in low-income neighborhoods, typically in the inner-city and the North End, and had chaotic or dysfunctional family lives. Most of the youth are at high risk to reoffend, live transient lifestyles, and have a history with Child and Family Services (CFS) and the Criminal Justice System (CJS).

Tables 5.4 – 5.7 indicate whether the youth lived away from their parents, had frequent address changes, had problematic living arrangements, and resided in high crime communities. Chi square (x^2) was used to test the difference between the two groups. The only significant difference was for accommodation away from parents, indicating that EM youth were much less likely to live away from their parents [x^2 =

14.25, p<.05]. According to EM management, this is likely because the EM program requires youth with a stable environment, not residing on the street or with Child and Family Services residing in hotel rooms.

Table 5.4: Accommodations away from Parents				
	EM (N=45)	COMP (N=42)	x^2	Sig
Yes	**20.0**	**59.5**	14.3	0.00
No	**80.0**	**40.5**		
Total	100.0%	100.0%		

Table 5.5: Problematic Living Arrangements				
	EM (N=45)	COMP (N=42)	x^2	sig
Yes	**84.4**	**66.7**	1.44	0.23
No	**15.6**	**33.3**		
Total	100.0%	100.0%		

Table 5.6: Frequent Address Change				
	EM (N=45)	COMP (N=42)	x^2	sig
Yes	**62.2**	**59.5**	0.19	0.67
No	**37.8**	**40.5**		
Total	100.0%	100.0%		

Table 5.7: High Crime Communities				
	EM (N=45)	COMP (N=42)	x^2	sig
Yes	**84.4**	**73.8**	1.50	0.22
No	**15.6**	**26.2**		
Total	100.0%	100.0%		

Education

The educational levels recorded in COMS were from the Primary Risk Assessments (see Table 5.8). Both groups had low educational attainment, with the comparison group being lower than the EM group. A chi square test was run on education between both

groups and was found to be statistically significant ($x^2 = 9.31$, $p<.01$), indicating that youth in the EM group on average had more education.

Table 5.8: Education Level:								
TOTAL SAMPLE	***f***	***%***	***EM***	***f***	***%***	***COMPARISON***	***f***	***%***
Grades 5-8	32	36.8	Grades 5-8	11	24.4	Grades 5-8	21	50
Grades 9-10	50	57.5	Grades 9-10	29	64.4	Grades 9-10	21	50
Grades 11-12	5	5.7	Grades 11-12	5	11.1	Grades 11-12	0	0
TOTAL	**87**	**100.00%**	**TOTAL**	**45**	**99.99%***	**TOTAL**	**42**	**100.00%**
*Note: Totals may not sum to 100.0% due to rounding.								
Chi Square $x^2 = 9.31$; sig= $p<.01$.								

Employment Status

Most of the youth live transient lifestyles and are typically in and out of the criminal justice system, which affects their education and/ or employment status (Table 5.9). According to COMS, the majority of youth in both groups were students, (EM 86.7% and Non-EM 52.4%). A chi square test was run comparing education and employment status between both groups and was found to be statistically significant ($x^2 = 14.23$, $p<.001$), indicating that the EM group was more likely to be in school and less likely to be employed than the comparison group.

Table 5.9: Educational/ Employment Status								
TOTAL SAMPLE	***f***	***%***	***EM***	***f***	***%***	***COMPARISON***	***f***	***%***
Student	61	70.2	Student	39	86.7	Student	22	52.4
Employed	13	14.9	Employed	1	2.2	Employed	12	28.6
Unemployed	13	14.9	Unemployed	5	11.1	Unemployed	8	19
TOTAL	**87**	**100.0%**	**TOTAL**	**45**	**100.0%**	**TOTAL**	**42**	**100.0%**
Chi Square (x^2)= 14.23; sig= $p<.001$								

Gang Affiliation and Membership

When youth are admitted into custody they are asked by correctional staff if they are affiliated or members of gangs (Table 5.10). It is important for youth to provide truthful responses as they could be housed with members/ affiliates of competing gangs- which could result in serious injuries. Some youth brag about their affiliation or membership, while others want to keep it on the "down low." According to COMS many youth in both groups had connections with gangs in Winnipeg. Both groups had high percentages of gang ties as 84.5% of youth on EM and 80.9 % of Non-EM youth were either gang members or associates. This difference was not statistically significant.

Table 5.10: Gang Affiliation or Membership

EM	***f***	**%**	***COMPARISON***	***f***	**%**
Associate	30	66.7	Associate	31	73.8
Member	8	17.8	Member	3	7.1
Unidentified	7	15.5	Unidentified	8	19.0
TOTAL	**45**	**100.00%**	**TOTAL**	**42**	**99.99%***
*Note: Totals may not sum to 100.0% due to rounding.					
Independent samples t-test results= t=-1.43; sig= 0.16					

The following table lists the breakdown of gangs to which the youth reported connections. The highest reported gang ties in both groups was with Most Organized Brothers (MOB), EM youth (57.9%) and Non-EM youth (32.4%) (see Table 5.11). According to EM management, MOB is a very active gang, but their main purpose is not necessarily stealing automobiles. Therefore, it does not seem that MOB is an active auto theft gang, but that the members within the gang are active in auto theft. Youth come and go through a variety of gangs which often change names. The differences in gang affiliation between the two groups are not statistically significant.

Table 5.11: Gangs Youth are Affiliated/ Members to:				
GANG NAME	***EM***		***COMPARISON***	
	F	*%*	*f*	*%*
Most Organized Brothers	22	57.9	11	32.4
Misc or new small gang	8	21.1	6	17.6
Manitoba Warriors	3	7.9	2	5.9
Bloods	1	2.6	4	11.8
Indian Posse	1	2.6	3	8.8
Mad Cowz	1	2.6	3	8.8
Native Syndicate	1	2.6	2	5.9
Westside Outlaws	1	2.6	0	0.0
B-side	0	0.0	1	2.9
Cripz	0	0.0	1	2.9
Krazies	0	0.0	1	2.9
TOTAL	38	99.99*%	34	99.99*%
* Some totals may not add up to 100.0% due to rounding.				
Independent samples t-test results= t=-0.65; sig= 0.52				

Risk Level

MYPS uses the Primary Risk Assessment (PRA) for young offenders, which is a modified version of the Young Offenders Level of Service Inventory (YO-LSI). Research conducted on the YO-LSI has shown that it can assist in predicting whether young offenders will violate rules, reoffend, misbehave in an institution and/or victimize vulnerable people (i.e. predatory behaviour). Overall, there are 82 risk factors on the PRA and they are broken down into the following seven categories:

1) Criminal History
2) Substance Abuse
3) Education/ Employment Problems
4) Family Problems
5) Peer Relation Problems
6) Accommodation Problems
7) Psychological Factors

Each section receives a subtotal and percentage to help identify the serious problem areas for youth who could require intervention. Once all the categories are complete, they are totaled in order to find the risk to reoffend score. For the purposes of this study, only high risk (39 to 49) and very high risk (50+) levels are being examined because those are the individuals included in the WATSS program (Table 5.12).

Table 5.12: Risk Scores and Levels	
Risk to Reoffend Score	**Risk Level**
23 & Lower	Low
24 to 38	Medium
39 to 49	High
50 & Higher	Very High

Table 5.13: Primary Risk Assessment Scores		
	EM	**COMPARISON**
Risk Score	*%*	*%*
High (30-49)	53.3	57.1
Very High (50+)	46.7	42.9
Total	**100.0%**	**100.0%**
Independent samples t-test value= 0.49; sig= 0.63		

The primary risk assessment scores for youth on EM and in the Comparison group can be seen in Table 5.13. An independent samples t-test was used to test the significance of the data but did not yield significant results. There are many circumstances when overrides are recommended based on individual's situations, attitudes and behaviours which may increase/ decrease the original primary risk assessment score. Within the EM group, there were four overrides changing the risk scores from high risk to very high risk. After the overrides, a large portion of youth in

the comparison group 57.1% were high risk compared to 53.3% of youth in the EM group. In addition, 42.9% of youth in the comparison group and 46.7% of the EM youth were very high risk. Youth in the EM group are higher risk than those in the comparison group, though the difference is not significant.

Age of First Charges and Convictions

All youth had extensive involvement in the criminal justice system prior to the evaluation. The following discussion of charges and convictions is divided into ages at first charge, first auto theft charge, first conviction and first auto theft conviction.

Table 5.14 examines age of first charges. An independent samples t-test was run comparing the means of both groups and the results were not statistically significant, showing no difference in age at first criminal charge between both groups of youth. The mean for both groups was 13 years of age.

Table 5.14: Age of First Criminal Charge					
EM			***COMPARISON***		
Mean 13 **SD** 1			**Mean** 13 **SD** 1.5		
AGE	***f***	**%**	**AGE**	***f***	**%**
12	19	42.2	12	18	42.9
13	13	28.9	13	9	21.4
14	8	17.8	14	8	19.0
15	5	11.1	15	5	11.9
16	0	0.0	16	2	4.8
TOTAL	45	100.00%	**TOTAL**	42	100.00%
Independent samples t-test value= 0.17; sig= 0.87					

Table 5.15 displays the results of ages at first auto theft charges. The results of an independent samples t-test comparing the means of both groups and the results were

not statistically significant, showing no difference in age at first auto theft charge between both groups of youth. The mean for both groups was 13.4 years of age.

Table 5.15: Age of First Auto Theft Charge					
EM			***COMPARISON***		
Mean	13.4		**Mean**	13.4	
SD	1.29		**SD**	1.53	
AGE	***f***	**%**	**AGE**	***f***	**%**
12	15	33.3	12	11	26.2
13	11	24.4	13	11	26.2
14	7	15.6	14	10	23.8
15	10	22.2	15	7	16.7
16	2	4.4	16	3	7.1
TOTAL	45	100.00%	**TOTAL**	42	100.00%
Independent samples t-test value= 0.02 ; sig= 0.99					

Youth in both groups were charged and convicted at an early age (see Table 5.16). The average age of a youth at first conviction was 13.3 for the EM group and 13.2 years for the comparison group. An independent samples t-test was run comparing the means of both groups, showing no difference in age at first conviction.

Table 5.16: Age at First Conviction					
EM			***COMPARISON***		
Mean	13.3		**Mean**	13.2	
SD	1.2		**SD**	1.5	
AGE	***f***	**%**	***AGE***	***f***	**%**
12	16	35.6	12	14	33.3
13	9	20.0	13	11	26.2
14	11	24.4	14	9	21.4
15	8	17.8	15	5	11.9
16	1	2.2	16	3	7.1
TOTAL	45	100.00%	**TOTAL**	42	100.00%
Independent samples t-test value= -0.25; sig= 0.80					

Finally, as shown in Table 5.17, the average age for the first auto theft conviction was 13.7 years for the EM group and 13.6 for the comparison group; this difference was not significant.

Table 5.17: Age at First Auto Theft Conviction					
EM			***COMPARISON***		
Mean	13.7		**Mean**	13.6	
SD	1.29		**SD**	1.27	
AGE	***F***	***%***	***AGE***	***f***	***%***
12	11	24.4	12	10	23.8
13	10	22.2	13	11	26.2
14	7	15.6	14	11	26.2
15	15	33.3	15	6	14.3
16	2	4.4	16	4	9.5
TOTAL	45	100.00%	**TOTAL**	42	100.00%
Independent samples t-test value= -0.42; sig= 0.67					

Summary of Similarities and Differences of Participant Characteristics

Youth in both groups were evenly matched, as there were few significant differences between the EM youth and the comparison group. The following characteristics were similar for both groups: age; gender; race/ ethnicity; living arrangements (frequent address change, problematic living arrangements and reside in high crime community); gang affiliation, membership and gang connections; risk assessments and overrides; age of first charges and convictions.

Nevertheless, there were only a few differences seen between both groups. First, EM youth were less likely to live away from their parents. Second, youth in the EM group had a higher reported educational attainment. Third, youth in the EM group were more likely to be students compared to workers. However, it should be noted that

youth in both groups are highly dynamic and most do not attend school or work frequently or consistently.

5.2 Daily Contacts between Youth and Workers

When WATSS youth are released into the community they often have two staff members working with them: one probation officer and either one Auto Theft Suppression Worker (ATSW) or one Intensive Supervision and Support Worker (ISSP). The following daily contacts will be examined: in-person, other, collateral, non-compliance informal and non-compliance formal contacts. The following tests were conducted to assess daily contacts.

1) Between groups: independent sample t-tests were run between groups comparing the number of contacts between youth and their workers; and

2) Within groups: paired sample t-tests were conducted to test the differences within each group comparing Pre-EM to EM, Pre-EM to Post-EM 1Year, and Pre-EM to Post-EM 2 Years.

The daily contacts were recorded monthly from April 2008 to December 2010, and were divided into phases rather than reported yearly. The phase breakdown is specific for the EM group (because they had the intervention) and their matched counterparts from the comparison group were assigned the same time frames. The data was split into the following phases:

1) Pre-EM: Refers to the period from one year before the youth were placed on EM to the date they began the program.
2) During EM: The period of time when the youth were part of the electronic monitoring program. This phase is different for all EM youth and was the total amount of time spent on the device (ranging from 12 to 350 days).
3) One Year Post-EM: One year after the youth were out of the EM program.
4) Two Years Post-EM: Two years after the youth were out of the EM program, taking off from the last day of the previous phase.

Note: Youth were part of WATSS when groups were initially created. However, youth are in and out of custody and WATSS. Therefore, youth may not have been in WATSS for the entire timeframe of each phase; thus, differences in sample size exist between the two groups for Pre-EM and Post-EM 2 Years. According to EM management, it is possible to have fewer contacts in the Pre-EM period, especially if certain youth had a higher degree of time in custody because they would have less contacts in the community. Also, youth in the Pre-EM phase were more likely to be in custody compared to a general probation case with the same risk level. Thus, it is possible for youth in the EM group or the comparison group to be part of the evaluation even when they may have taken time away from WATSS.

For each type of contact the total, mean and standard deviation are discussed. The mean represents the average, and the standard deviation assesses the variability within a sample, looking at how greatly the contacts differ from one another. In the majority of the contacts over the phases, standard deviations were extraordinarily high, indicating that the greater the standard deviation, the higher the range (high value minus low value) of contacts within the group.

5.2.1 In-person Contacts:

In-person contacts refer to youth visits between the Probation officer and ATSW or ISSP. These visits take place in-person within the office, in the community or in custody. In person contacts are important to examine in order to see if EM impacted the level of face to face contacts. For the purposes of this evaluation, in-person contacts

exclude curfew contacts.[10] The importance of in-person contacts emerged from the qualitative data because staff and stakeholders commented that one of the drawbacks of EM was that youth within the program were having less in-person visits than youth in the comparison group. Thus, it was necessary to investigate these claims.

As shown in Table 5.18, youth in the EM group had higher rates of in-person contacts for Pre-EM, EM, Post-EM 1 and Post-EM 2 Years than youth in the Non-EM group. The highest average number of in-person contacts occurred during EM 2 Years for both groups; youth on EM had an average of 54.7 contacts per youth and youth in the comparison group had an average of 43.9 contacts per youth. While there was a consistent pattern of higher average contacts for the EM group, independent sample t-tests yielded no significant results between the two groups for in-person contacts over the four phases.

Table 5.18: In Person Contacts over Four Phases (Independent t-tests)

PHASES	EM				COMPARISON				ind. t-tests	sig
	n	TOTAL	MEAN	SD	n	TOTAL	MEAN	SD		
PREEM	33	1188	36.0	29.7	26	765	29.4	29.0	-0.85	0.40
EM	45	1815	40.3	38.2	36	1157	32.1	29.3	-1.06	0.29
POST EM 1Y	30	1458	49.6	39.4	31	1505	48.6	44.0	-1.03	0.31
POST EM 2Y	16	875	54.7	45.6	15	571	43.9	51.9	-0.60	0.56

Table 5.19 looks at paired sample t-tests results. This statistical significance test looks at each group independently while comparing two different time phases. For example, Pre-EM was used as the baseline and was compared to the other phases to see

[10] Note that youth on WATSS had very frequent curfew ch ecks. They were checked by telephone or in person as often as every 3 hours.

if EM had any impact on daily contacts, short or long term. It is necessary to look at the results of both groups (EM and Non-EM) in order to differentiate the impact of EM.

Table 5.19: In-person Contacts over Four Phases (Paired t-test)										
CONTACT & PHASE	EM					COMPARISON				
	n	MEAN	SD	t-tests	sig	n	MEAN	SD	t-tests	sig
PRE_EM_IP	33	36.00	29.66	-0.97	0.34	25	30.32	29.19	-0.10	0.92
EM_IP	33	42.85	40.97			25	31.32	32.26		
PRE_EM_IP	20	31.55	28.33	-0.90	0.38	15	27.53	31.91	-1.07	0.30
POSTEM1_IP	20	41.15	37.24			15	42.93	36.76		
PRE_EM_IP	10	25.70	22.32	-1.42	0.19	4	35.00	56.29	-0.84	0.46
POSTEM2_IP	10	49.70	50.90			4	78.00	83.94		

Paired sample t-tests are capable of indicating the effects of an intervention. However, for in-person contacts, there were no statistically significant results found for either group. While not statistically significant, there were large differences in both groups for the Pre-EM to Post-EM 2 years. However, the number of cases that were still in the system during the Post-EM 2 period was small (10 for the EM group and 4 for the comparison group) so the results are not meaningful.

5.2.2 Other Contacts:

Other contacts refer to curfew contacts, contacts between youth and their workers and contacts with criminal justice personal including, police, crown, lawyers and curfew contacts[11]. Table 5.20 examines totals of other contacts per group, averages, standard deviations and significance testing over four phases. As indicated previously, high standard deviation scores represent a high range of contacts within that

[11] Note: curfew contacts were included within this section due to data collection and coding.

group. Independent samples t-tests were run for significance testing and did not yield any significant results.

Curfews are mandated by the court, and the numbers of contacts are mandated by MYPS as part of the monitoring process and are administered by corrections. These contacts are supposed to occur frequently—generally every three to six hours depending on risk classification/ general assessments[12]. EM management commented that there could be two reasons why contacts did not occur every three to six hours. Firstly, Manitoba Youth Probation Services (MYPS) has arranged with schools and programs to notify staff if youth are not in attendance. If youth are absent, MYPS are contacted. Secondly, since youth spend time in the community and in and out of custody, their movements are very difficult to track. Approximately 70% of youth at any given time are in prison due to violations, charges or convictions. Additionally, youth are also in and out of WATSS, which would also reflect the level of other contacts.

Youth in the EM group had higher rates of other contacts for Pre-EM, EM and Post-EM 2 Years compared to the Non-EM group. However, the Non-EM group had higher other contacts Post-EM 1 Year compared to the EM group. The largest differences between the two groups occurred during the EM phase where youth on EM had higher averages (317) of contacts compared to the Non-EM group averaging (252) contacts. These differences were not statistically significant.

[12] A copy of the necessary sections of the contract between Manitoba Public Insurance (MPI) and Manitoba Justice with specifications of number of contacts can be found in Appendix B.

Table 5.20: Other Contacts over Four Phases (Independent samples t-tests)										
PHASES	EM				COMPARISON				t-tests	sig
	n	*TOTAL*	MEAN	SD	*n*	*TOTAL*	MEAN	SD		
PREEM	33	8679	263.0	248.9	26	5597	215.3	218.1	-0.77	0.44
EM	45	14275	317.2	266.7	36	9092	252.6	234.1	-1.14	0.26
POST EM 1Y	30	9459	315.6	275.3	31	10612	342.3	261.1	-0.66	0.51
POST EM 2Y	16	4710	294.4	240.6	13	2761	212.4	143.5	-1.14	0.27

Paired samples t-tests measure the differences within a group using two different time periods (see Table 5.21). For example: for youth on EM comparing Pre-EM to EM for other contacts. For this type of contact, significant results were not yielded for either group. However, the EM group had a large increase from the Pre-EM to EM period, while the comparison group had an even larger increase from Pre-EM to the Post-EM 1 period.

Table 5.21: Other Contacts over Four Phases (Paired t-test)										
CONTACT & PHASE	EM					COMPARISON				
	n	*MEAN*	*SD*	t-tests	sig	*n*	*MEAN*	*SD*	t-tests	sig
PRE_EM_OC	*33*	*263.00*	*248.87*	*-1.32*	*0.20*	*25*	*217.12*	*222.33*	*-0.29*	*0.77*
EM_OC	*33*	*340.27*	*279.95*			*25*	*241.08*	*255.18*		
PRE_EM_OC	*20*	*250.50*	*267.28*	*-0.19*	*0.86*	*15*	*225.93*	*264.90*	*-1.15*	*0.27*
POSTEM1_OC	*20*	*263.35*	*215.18*			*15*	*321.93*	*249.39*		
PRE_EM_OC	*10*	*228.20*	*261.65*	*-0.51*	*0.62*	*4*	*305.75*	*437.18*	*0.48*	*0.66*
POSTEM2_OC	*10*	*289.60*	*242.37*			*4*	*222.50*	*125.77*		

5.2.3 Collateral Contacts:

Collateral contacts refer to contacts reported by the workers with family, foster families, relatives, programs, school, friends etc. Youth in the comparison group had higher averages for Pre-EM and EM periods compared to the EM group. The EM phase displayed the highest number of collateral contacts for both groups. A statistical anomaly occurs with this data because both groups have higher standard deviations

than the mean, indicating that a high range of contacts occurred within that particular group. Note: Results for Post-EM 2 Years are not reported because a change in data collection methods meant that no data was available[13].

Table 5.22 shows the results of the Independent sample t-tests for the collateral contacts over phases. The largest differences between means was during Pre-EM where youth on EM had on average 96 contacts per youth while youth in the comparison group had an average of 131 contacts per youth. The comparison group also had more contacts during the EM period, while the EM group had more contacts during the Post-EM period. These differences are relatively large, but none were statistically significant.

Table 5.22: Collateral Contacts Four Phases (Independent samples t-tests)

PHASES	EM			COMPARISON			t-tests	sig
	n	MEAN	SD	*n*	MEAN	SD		
PREEM	*33*	96.2	100.8	*26*	131.1	128.3	1.17	0.25
EM	*45*	108.2	121.2	*36*	139.5	176.1	0.91	0.37
POST EM 1Y	*30*	95.3	130.0	*31*	72.0	112.8	-0.75	0.46
POST EM 2Y	--	--	--	--	--	--	--	--

* Note: Post EM 2 Years data was not available

Table 5.23 indicates the test results for paired sample t-tests. This test looks at each group separately by contrasting two different time phases. For example, the EM group was compared PRE-EM to EM for collateral contacts. There were no statistical differences found for youth in the EM group. However, the comparison group did yield significant results for Pre-EM to Post-EM 1 Year [t (14) = 1.763, p<.10), indicating that the comparison group had significantly higher collateral contacts during PRE-EM when

[13] The changes in data collection for collateral contacts are discussed in Chapter 7 within the limitations section.

compared to Post-EM 1 Year (note the level of significance here is .10). The EM group showed the same pattern, though the difference was not statistically significant.

Table 5.23: Collateral Contacts over Four Phases (Paired t-test)										
CONTACT & PHASE	**EM**					**COMPARISON**				
	n	***MEAN***	***SD***	**t-tests**	**Sig**	***n***	***MEAN***	***SD***	**t-tests**	**sig**
PRE_EM_C	*33*	*96.15*	*100.83*	*0.12*	*0.91*	*25*	*134.80*	*129.52*	*-0.25*	*0.80*
EM_C	*33*	*93.67*	*99.56*			*25*	*148.72*	*196.82*		
PRE_EM_C	*20*	*75.45*	*78.64*	*1.45*	*0.16*	*15*	*127.13*	*148.10*	*1.76*	*0.10**
POSTEM1_C	*20*	*47.55*	*69.57*			*15*	*44.13*	*75.72*		

EM project management suggested that youth in the comparison group had higher numbers of contacts because of "the trap of EM." EM management stated that the EM trap affects youth in the EM group, meaning that staff do not call collaterals as much because they already know youth locations. The differences one year after the EM program might be explained by these youth still being held more accountable or by higher levels of activity in and out of prison.

5.2.4 Non-compliance Informal

Non-compliance Informal (NCI) contacts refer to occurrences where youth have breached their conditions and have been coached back into compliance through remedial intervention by staff. Although there is a zero tolerance policy for youth within WATSS, individual circumstances for each situation are considered and left to the discretionary power of the staff as to whether the breach will be informal or formal. For example, if youth are late for curfew because they have missed their bus, they would likely have a non-compliance informal contact from their worker and would most likely not be breached.

Youth in the comparison group had higher rates of non-compliance informal contacts than EM youth for the Pre-EM, EM and Post-EM 1 Year phases. This indicated that youth in the EM group were either committing fewer violations or being held more accountable for their actions (for two reasons, the EM device and/ or additional staff support.) However, during Post-EM 2 Years, the average of non-compliance informal contacts per youth rapidly decreased for youth in the comparison group from 33.4 to 14.5 contacts, an average decline of 18.9 contacts per youth. Over the same period, youth in the EM group had their numbers of contacts go up from 13.6 to 19.8 contacts, an average increase of 6.24 contacts per youth. Examining the pattern of non-compliance informal contacts over the phases, it does not appear as though EM has made any difference – contacts went up for the EM group during the EM period while they went down slightly for the comparison group.

Table 5.24 looks at the results of independent samples t-test for non-compliance informal contacts. The independent samples t-test yielded significant results. Firstly, for the Pre-EM period, youth in the comparison group were in violation more often than the EM group prior to EM. Secondly, Post-EM 1 Year youth in the comparison group were in violation more often than the EM group one year after the intervention.

Table 5.24: NCI Contacts over Four Phases (Independent samples t-tests)

PHASES	EM			COMPARISON			t-tests	sig
	N	MEAN	SD	*N*	MEAN	SD		
PREEM	*33*	15.0	22.3	*26*	35.0	43.9	2.12	0.04**
EM	*45*	24.4	35.4	*36*	32.7	45.2	0.94	0.35
POST EM 1	*30*	13.6	21.4	*31*	33.4	42.0	2.33	0.03**
POST EM 2Y	*16*	19.8	32.7	*15*	14.5	19.8	-0.517	0.61

Table 5.25 examines the results of the paired sample t-tests. Statistically significant results were found for the EM group only, for Pre-EM to EM [t (14) = 1.763, p<.05]. The implications of this finding demonstrate that there have been significant increases in violations from Pre-EM to EM. These results could be explained by closer supervision of youth on EM by the device and/or staff, or by youth committing higher numbers of violations with the device.

Table 5.25: NCI Contacts over Four Phases (Paired t-test)										
CONTACT & PHASE	EM					COMPARISON				
	n	*MEAN*	*SD*	t-tests	sig	*n*	*MEAN*	*SD*	t-tests	sig
PRE_EM_NCI	*33*	*15.00*	*22.31*	*-2.04*	*0.05***	*25*	*35.52*	*44.76*	*0.10*	*0.92*
EM_NCI	*33*	*27.24*	*39.23*			*25*	*34.04*	*49.11*		
PRE_EM_NCI	*20*	*15.40*	*25.47*	*0.42*	*0.68*	*15*	*45.00*	*54.80*	*0.77*	*0.45*
POSTEM1_NCI	*20*	*13.35*	*23.77*			*15*	*29.47*	*43.30*		
PRE_EM_NCI	*10*	*16.00*	*24.97*	*-0.11*	*0.92*	*4*	*39.50*	*71.23*	*0.57*	*0.61*
POSTEM2_NCI	*10*	*17.20*	*21.22*			*4*	*19.75*	*19.50*		

5.2.5 Non-compliance Formal

Non-compliance Formal (NCF) refers to occurrences where youth breached their conditions and were non-compliant. Staff remedial intervention resulted in documented suspension or immediate apprehension in these situations. Table 5.26 examines non-compliance formal contacts over phases between groups.

Table 5.26: NCF Contacts over Four Phases (Independent samples t-tests)								
PHASES	EM			COMPARISON			t-tests	sig
	n	MEAN	SD	*n*	MEAN	SD		
PREEM	*33*	0.85	1.50	*26*	0.88	1.07	1.04	0.92
EM	*45*	1.53	2.14	*36*	1.67	3.70	0.2	0.84
POST EM 1YEAR	*30*	0.77	1.01	*31*	0.77	1.02	0.03	0.98
POST EM 2YEARS	*16*	0.75	1.07	*15*	1.15	1.77	0.76	0.45

Youth in the comparison group had slightly higher rates of non-compliance formal contacts across all four phases. Post-EM 1 Year showed that youth in both groups had the same average of contacts per person at 0.77. Post-EM 2 Years indicated that youth in the comparison group had slightly higher rates of non compliance formal contacts per youth when compared to the EM group. Except for the Post-EM 2 period, the differences between groups were very small.

Table 5.27 looks at paired sample t-tests within each group comparing different time phases. For non compliance formal contacts, neither group yielded statistically significant results. Examining Table 5.30, two years after the program, EM has shown a small impact on youth for non compliance formal contacts. The table shows that from PRE-EM to Post-EM 2 Years, youth on EM had an average increase of 0.20 (Post-EM 2 Years subtract PRE-EM) compared to the Non -EM group who had an average increase of 0.50 (Post-EM 2 Years subtract PRE-EM).

Table 5.27: Non Compliance Formal Contacts over Four Phases (Paired t-test)

CONTACT & PHASE	EM					COMPARISON				
	n	*MEAN*	*SD*	t-tests	sig	*n*	*MEAN*	*SD*	t-tests	sig
PRE_EM_NCF	*33*	*0.85*	*1.50*	*-1.29*	*0.21*	*25*	*0.88*	*1.09*	*-0.88*	*0.39*
EM_NCF	*33*	*1.42*	*2.06*			*25*	*1.68*	*4.38*		
PRE_EM_NCF	*20*	*0.60*	*0.82*	*0.00*	*1.00*	*15*	*1.13*	*1.25*	*1.50*	*0.16*
POSTEM1_NCF	*20*	*0.60*	*0.88*			*15*	*0.53*	*0.74*		
PRE_EM_NCF	*10*	*0.30*	*0.48*	*-0.58*	*0.59*	*4*	*0.50*	*0.58*	*-0.58*	*0.60*
POSTEM2_NCF	*10*	*0.50*	*0.85*			*4*	*1.00*	*2.00*		

5.3 CRIMINAL BEHAVIOUR:

Criminal behaviour of youth in both groups was examined, looking specifically at convicted auto theft, other, technical and combined charges. The same phases as those

of daily contacts were used for examination of criminal behaviour. The criminal history refers to all convictions prior to the Pre-EM period.

5.3.1 Auto Theft Offences

Auto theft related charges include auto theft and joyriding, possession of property obtained by crime motor vehicle, dangerous operation of a motor vehicle and Highway Traffic Act convictions. It is important to note that other charges may be associated with auto theft, but these were not delineated within the court database. The following discussion refers to Tables 5.28 and 5.29.

Table 5.28: Auto Theft Related Charges (Independent samples t-tests)

PHASE	EM				COMPARISON				t-tests	sig
	n	N	MEAN	SD	*N*	N	MEAN	SD		
CRIM HISTORY	45	358	7.96	10.26	42	205	4.88	7.61	-1.58	0.12
PRE-EM	45	67	1.49	1.47	42	39	0.93	1.55	-1.73	0.09*
EM	45	35	0.78	1.73	42	22	0.52	1.86	-1.55	0.12
POST-EM 1Y	36	24	0.67	1.20	35	24	0.69	3.08	0.04	0.97
POST-EM 2Y	20	15	0.75	1.77	22	14	0.64	1.79	-0.21	0.84

Criminal History

Criminal history of the youth includes all convictions prior to the Pre-EM phase. EM youth averaged 7.96 auto theft offences per youth while the Non-EM group averaged 4.88 per youth (see Table 5.28). Although the independent samples t-tests did not reveal statistically significant results, the phase does show differences between the means. This is to be expected, as judges were more likely to use EM with offenders who had more serious auto theft records.

Pre-EM

When the groups were selected in June of 2008, they were part of WATSS. Given that youth may be in and out of custody they may also be in and out of WATSS. This means that the selection of youth during the EM phase did not guarantee that they were part of WATSS for the four other phases (although the majority were). Thus, it is possible for youth in either group to average less than one auto theft charge per youth. For the Pre-EM phase, the EM group averaged 1.49 auto theft related offences per youth and the Non-EM group averaged 0.93 auto theft related offences per youth.

Independent sample t-tests were run between both groups and yielded significant results at a probability value of 0.09, which is not significant [t (85)= -1.73, p<.09] (see Table 5.28). However, these results do indicate that youth in the EM group were more serious auto theft offenders, thus, were more likely to be given an EM disposition. According to EM project management, more than one auto theft charge in the past is definitely the criteria for inclusion in the EM program. However, in addition to raw numbers of offences, other factors are considered when considering auto theft youth offenders including, reckless driving, injury to the public and sensationalism of crime.

EM

Auto theft offences during the EM period was greater for the EM group (EM= 0.78 and Non-EM= 0.52) though the differences between the two groups were not statistically significant. A paired sample t-test was run for both groups, from Pre-EM to EM, to see if the intervention had any impact on the youth. As seen in Table 5.29, there was a

decrease in auto theft related offences from Pre-EM to EM for both groups. Youth on EM had an average decrease of 0.71 (48 percent) and the comparison group had an average decrease of 0.41 per youth (44 percent). Both groups showed decreases in auto theft offences. The decrease was significant only for the EM group, but as noted above, the percentage reductions were very similar for both groups.

Table 5.29: Auto Theft Related Charges (Paired t-tests)

PHASES	EM					COMPARISON				
	n	*MEAN*	*SD*	t-tests	sig	*n*	*MEAN*	*SD*	t-tests	sig
PRE_EM_AT	*45*	*1.49*	*1.47*	*2.10*	*0.04***	*42*	*0.93*	*1.55*	*1.01*	*0.32*
EM_AT	*45*	*0.78*	*1.73*			*42*	*0.52*	*1.86*		
PRE_EM_AT	*36*	*1.36*	*1.31*	*2.25*	*0.03***	*35*	*1.09*	*2.21*	*-1.37*	*0.18*
POSTEM1_AT	*36*	*0.67*	*1.20*			*35*	*0.69*	*3.08*		
PRE_EM_AT	*20*	*1.50*	*1.19*	*2.60*	*0.02***	*22*	*0.77*	*1.02*	*0.28*	*0.78*
POSTEM2_AT	*20*	*0.75*	*1.77*			*22*	*0.64*	*1.79*		

Post-EM 1 Years

During the Post-EM 1 Year youth on EM averaged 0.67 auto theft related offences and Non-EM youth averaged 0.69. An independent sample t-test showed no statistically significant results (see Table 5.28). As this table illustrates, a decrease occurred for both groups from the Pre-EM to the Post-EM1 periods. The EM group averaged a decrease of 0.69 per youth and the Non- EM group averaged a decrease of 0.40 per youth. Note: the decline for the EM group is 51% compared to 37% for the comparison group.

Similar to the EM phase, a paired sample t-test was run for each group, from Pre-EM to Post-EM 1 Year and revealed that only the EM group showed a significant

reduction [t(35)= 2.25, p<.03] (see Table 5.29). These results are positive and reveal a decrease in auto theft related charges for the EM group, though once again the percentage differences were relatively small.

Post-EM 2 Years

Post-EM 2 Years shows that youth on EM averaged 0.75 AT charges, a small increase from the Post-EM 1 Year, while the Non-EM youth averaged 0.64, a small decrease from the Post-EM 1 Year. These differences were not found to be statistically significant (see Table 5.28).

Nevertheless, an overall decrease in auto theft related convictions occurred for both groups. The EM group averaged a decrease of 0.75 per youth from the Pre-EM to the Post-EM2 periods, while the Non-EM group averaged a decrease of 0.13 per youth (see Table 5.29). Again, a paired sample t-test was run for each group, from Pre-EM to Post-EM 2 Years and yielded significant results for only the EM group [t (19)= 2.60, p<.02]. These results indicate that two years after the intervention, the youth in the EM group had a greater decline in auto theft offenses than the Non-EM group. However, this is based on a lower number of cases, EM (N=20) and Non-EM (N=22), than the other outcome measures (EM= 45) and Non-EM (42). Overall, the level of auto theft offences for the EM group dropped by about 50% compared to the comparison group which had a much smaller percentage decrease (17%).

5.3.2 Other Offences

Other offences includes all offences except for auto theft related convictions and technical violations; this section refers to Tables 5.30 and 5.31.

Table 5.30: Other Charges (Independent samples t-tests)										
PHASE	EM				COMPARISON				t-tests	sig
	n	N	MEAN	SD	*N*	N	MEAN	SD		
CRIM HISTORY	45	169	3.76	4.70	42	115	2.74	2.66	-1.25	0.21
PRE-EM	45	63	1.40	2.64	42	51	1.21	2.06	-0.36	0.72
EM	45	86	1.91	3.10	42	43	1.02	1.70	-1.55	0.12
POST-EM 1Y	36	89	2.47	3.39	35	79	2.26	3.39	-0.27	0.79
POST-EM 2Y	20	13	0.65	1.18	22	34	1.55	3.02	1.24	0.22

Criminal History

EM youth averaged 3.76 other offences per youth while the Non-EM group averaged 2.66 other offences per youth. The independent samples t-tests did not yield significant findings, though the number of offenses was somewhat higher for the EM group.

Pre-EM

EM youth averaged 1.40 other offences per youth while the Non-EM group averaged 1.21 other offences per youth. There were minor differences between the two groups during Pre-EM, and these were not significant (see Table 5.30).

EM

EM youth averaged 1.91 other offences per youth while the Non-EM group averaged 1.02 other offences per youth. While the EM group were almost double the comparison group this result was not statistically significant. Note: the paired samples t-test for other offences revealed no significant findings for either group (see Table 5.31).

Table 5.31: Other Charges (Paired samples t-tests)										
PHASES	EM					COMPARISON				
	n	*MEAN*	*SD*	t-tests	sig	*n*	*MEAN*	*SD*	t-tests	sig
PRE_EM_O	45	*1.40*	*2.64*	*-0.97*	*0.34*	*42*	*1.21*	*2.06*	*0.45*	*0.66*
EM_O	45	*1.91*	*3.10*			*42*	*1.02*	*1.70*		
PRE_EM_O	*36*	*1.58*	*2.89*	*-1.14*	*0.26*	*35*	*1.34*	*2.21*	*-1.37*	*0.18*
POSTEM1_O	*36*	*2.47*	*3.39*			*35*	*2.26*	*3.39*		
PRE_EM_O	*20*	*1.65*	*2.21*	*1.75*	*0.10**	*22*	*1.73*	*2.66*	*0.22*	*0.83*
POSTEM2_O	*20*	*0.65*	*1.18*			*22*	*1.55*	*3.02*		

Post-EM 1 Year

Both groups of youth had very serious charges including weapon, assault, robbery, kidnapping, second degree murder and manslaughter. Independent sample t-tests and paired samples t-tests were run for statistical significance and did not yield significant results (see Table 5.30 and 5.31). The increase in other charges for both the EM group and the comparison group were relatively the same.

Post-EM 2 Years

EM youth averaged 0.65 other offences per youth while the Non-EM group averaged 1.55 other offences per youth. This difference was large (58 percent) but not statistically significant (see Table 5.30). As demonstrated in Table 5.30 a decrease did occur for both groups from Pre-EM to Post-EM 2 Years; EM youth averaged a decrease of 1.00 per youth, while the Non-EM group averaged a decrease of 0.18 per youth. Paired sample t-tests yielded significant results at a probability value of 0.10 for only the EM group [t (19)= 1.75, p<.10] (see Table 5.31), indicating that two years after the program, the EM group showed a decrease in other convictions while the comparison group did not (results are not statistically significant).

5.3.3 Technical Offences

The category of technical offences encompasses a wide variety of breaches including all types of failure to comply and failure to comply with bail/ undertakings. This section refers to Tables 5.32 and 5.33.

Table 5.32: Technical Charges (Independent samples t-tests)

PHASE	EM				COMPARISON				t-tests	Sig
	n	N	MEAN	SD	*n*	N	MEAN	SD		
CRIM HISTORY	45	297	6.60	4.37	42	213	4.75	4.75	-1.56	0.12
PRE-EM	45	156	3.47	3.27	42	132	3.14	2.49	-1.43	0.61
EM	45	156	3.47	4.27	42	105	2.50	3.20	-1.19	0.24
POST-EM 1Y	36	107	2.97	2.64	35	85	2.43	2.87	-0.83	0.41
POST-EM 2Y	20	21	1.05	2.16	22	39	1.77	2.11	1.09	0.28

Criminal History

EM youth averaged 6.60 technical offences per youth while the Non-EM group averaged 4.75 technical offences per youth. The independent samples t-tests did not yield significant findings, although the EM group was 39% higher than the comparison group.

Pre-EM

EM youth averaged 3.47 technical offences per youth while the Non-EM group averaged 3.14 technical offences per youth. Independent sample t-tests were run between the groups for technical charges [t (85)= -0.52, p<0.61] and were not significant.

EM

Technical offences averaged 3.47 for youth on EM and 2.50 for youth in the comparison group (see Table 5.32). Even though youth on EM had 39% higher averages of technical offences, the difference was not significant. Changes over time (Pre-EM to EM) were tested separately for both groups (paired samples t-tests). There was no change for the

EM group and a decline in technical charges for the comparison group, though this difference was not significant.

Table 5.33: Technical Charges (Paired samples t-tests)										
PHASES	EM					COMPARISON				
	n	*MEAN*	*SD*	t-tests	sig	*n*	*MEAN*	*SD*	t-tests	sig
PRE_EM_T	*45*	*3.47*	*3.27*	*0.00*	*1.00*	*42*	*3.14*	*2.49*	*1.05*	*0.30*
EM_T	*45*	*3.47*	*3.27*			*42*	*2.50*	*3.20*		
PRE_EM_T	*36*	*3.67*	*3.49*	*0.92*	*0.37*	*35*	*3.26*	*2.63*	*1.24*	*0.23*
POSTEM1_T	*36*	*2.97*	*2.64*			*35*	*2.43*	*2.87*		
PRE_EM_T	*20*	*4.10*	*3.74*	*3.37*	*0.03***	*22*	*3.14*	*2.77*	*1.72*	*0.10**
POSTEM2_T	*20*	*1.05*	*2.16*			*22*	*1.77*	*2.11*		

Post- EM 1 Year

EM youth averaged 2.97 and Non-EM youth averaged 2.43 technical offences per youth (see Table 5.34) and the results were not significant. Paired samples t-tests for each group separately for Pre-EM to Post-EM 1 Year failed to yield significant findings (Table 5.33).

Post-EM 2 Years

The EM group averaged 1.05 technical offences per youth and the Non-EM group averaged 1.77 offences per youth. As Table 5.33 indicates, this difference between the two groups was not statistically significant. Examining technical offences, a decrease is observed for both groups from Pre-EM to Post-EM 2 Years. Youth on EM averaged a decrease of 3.05 per youth, while Non-EM youth averaged a decrease of 1.37 per youth.

Paired sample t-tests were run for technical offenses and both groups showed significant findings. The EM group had the following results [t (19) =3.37, p<.003] indicating that technical offenses had decreased substantially from Pre-EM to Post-EM 2

years. The Non-EM group had results at a probability value of 0.10 , [t(19)= 3.37, p<.10] indicating that offences had decreased from Pre-EM to Post-EM 2 Years (but not statistically significant). Thus, the EM youth had a larger decrease indicating that EM seemed to have provided a larger impact on the EM group. However, it should be noted that less than half of the youth were followed into the Post-EM2 period, so not much weight should be placed on this comparison.

5.3.4 Combined Offences

Combined offences include all convictions including auto theft related offences, other, and technical convictions. This section refers to Tables 5.34 and 5.35.

Table 5.34: Combined Charges (Independent samples t-tests)

PHASE	EM				COMPARISON				t-tests	sig
	n	*TOTAL*	MEAN	SD	*n*	TOTAL	MEAN	SD		
CRIM HISTORY	45	824	18.31	15.61	42	533	12.69	10.84	-1.94	0.06*
PRE-EM	45	286	6.36	5.10	42	222	5.29	3.71	-1.12	0.27
EM	45	276	6.43	7.42	42	170	4.05	4.73	-1.31	0.20
POST-EM 1Y	36	220	6.11	4.98	35	188	5.37	6.86	-0.52	0.60
POST-EM 2Y	20	49	2.45	3.47	22	87	3.95	4.74	1.16	0.25

Criminal History

The EM group averaged approximately 18 combined charges while the Non-EM group averaged about 13 combined charges during the criminal history phase. An independent samples t-tests was run for the combined totals between both groups and had results at a probability value of 0.06 [t (85) =-1.94, p<0.06] (not statistically significant). These

results indicate noticeable differences in combined charges. Youth in the EM group had a 45% higher rate of offending than the comparison group.

Pre-EM

Independent sample t-tests were run between the groups for Combined charges [t (85) = -1.12, p<0.27] and showed no statistically significant results.

EM

As Table 5.34 indicates, there was a slight increase In combined charges for the EM group, from 6.36 to 6.43 offences while the Non-EM group decreased slightly from 5.29 to 4.73 offences per youth. These differences are due to EM related other offences (discussed previously) and are not statistically significant. Also, paired sample t-tests were run from Pre-EM to EM and were not significant for either group (see Table 5.34).

Post-EM 1 Year

As Table 5.34 indicates, the EM group averaged 6.11 combined offences per youth while the Non-EM group averaged 5.37 offences per youth. These differences were not statistically significant. Also, paired sample t-tests were run from Pre-EM to Post-EM 1 Year and were not significant for either group (see Table 5.35).

Table 5.35: Combined Charges (Paired samples t-tests)

PHASES	EM					COMPARISON				
	n	*MEAN*	*SD*	t-tests	Sig	*n*	*MEAN*	*SD*	t-tests	sig
PRE_EM_C	*45*	*6.36*	*5.10*	*0.16*	*0.87*	*42*	*5.29*	*3.71*	*1.29*	*0.21*
EM_C	*45*	*6.43*	*7.42*			*42*	*4.05*	*4.73*		
PRE_EM_C	*36*	*6.61*	*5.44*	*0.37*	*0.72*	*35*	*5.69*	*3.84*	*0.25*	*0.81*
POSTEM1_C	*36*	*6.11*	*4.98*			*35*	*5.37*	*6.86*		
PRE_EM_C	*20*	*7.25*	*4.72*	*4.12*	*0.01****	*22*	*5.64*	*4.11*	*1.32*	*0.20*
POSTEM2_C	*20*	*2.45*	*3.47*			*22*	*3.95*	*4.74*		

Post-EM 2 Years

The EM group averaged 2.45 combined offences per youth while the Non-EM group averaged 3.95 combined offences per youth, which was not a significant difference (see Table 5.34).

A decrease occurred for both groups from Pre-EM to Post-EM 2 Years; youth on EM had an average decrease of 3.9per youth, while youth in the comparison group had an average decrease of 1.3 per youth. A paired sample t-test was run for combined offenses for the EM group, from Pre-EM to Post-EM 2 Years and the results were significant [$t(19)= 4.12$, $p<.001$] (see Table 5.35). These results show a significant decline in combined charges from Pre-EM to Post-EM 2 Years indicating that EM had a positive effect on criminal offending among youth. However, it should be noted again that only 44% of the EM group were tracked though the Post-EM2 year, so this finding may be artificial.

5.4 SUCCESS OF EM

5.4.1 EM cases by Sentence Type

Thirty of the youth were sentenced to EM one time only. The following list shows sentence types and days spent on the device with each sentence type (see Table 5.36):

- Supervised Probation (SP): Youth (n=15) sentenced to supervised probation with EM spent a total of 1,333 days on the device, averaging approximately 89 days per youth on the device.
- Community Supervision Order (CSO): Youth (n=12) on a CSO spent 915 days on the device, averaging 76 days per youth.
- Undertaking (UTJ): Youth (n=2) on an undertaking spent a total of 348 days on EM, averaging 174 days per youth.
- Deferred Custody Order (DCO): Youth (n=1) on a DCO spent a total of 100 days on the device.

Table 5.36: Youth Sentenced once to Electronic Monitoring									
	Days on EM								
SENTENCE	**1-30**	**31-60**	**61-90**	**91-120**	**121-150**	**241-270**	**331-350**	**Total Days**	**Average Per Youth**
1) Supervised Probation (n=15)	2	3	7	1	1	0	1	1,333	88.9
2) Community Supervision Order (n=12)	6	3	0	0	1	2	0	915	76.3
3) Undertaking (n=2)	0	0	1	0	0	0	1	348	174.0
4) Deferred Custody Order (n=1)	0	0	0	1	0	0	0	100	100.0
TOTAL (30)	**8**	**6**	**8**	**2**	**2**	**2**	**2**	**2,696**	**89.9**

In total, youth placed on EM for one term (n=30) spent a total of 2,696 days on the device, averaging 90 days per youth. In the event of significant non compliance, the EM project manager and the Probation officer consult whether or not to re-start the EM timeframe.

Fifteen youth were sentenced to EM two times or more. The following list shows sentence types and days spent on the device (See Table 5.37)

- Community Supervision Order and Supervised Probation: Youth (n=5) with CSO and SP had the most days on EM in this group (a total of 700 days) and averaged 140 days per youth offender.
- Deferred Custody order and Supervised Probation: Youth (n=3) on DCO and SP had a total of 628 days on the device and averaged 209 days per youth
- Undertaking and Community Supervision Order: Youth (n=2) on UTJ and CSO had a total of 293 days on EM and averaged 147 days per youth.
- Undertaking and Supervised Probation: Youth (n=1) on a UTJ and SP had 268 total days on the device.
- Reintegration Leave and Supervised Probation: Youth (n=2) on RL and SP had 267 total days on EM and averaged 134 days per youth.
- Supervised Probation and Interim Judicial Release: Youth (n=1) on SP and IJR had 144 days on the device
- Reintegration Leave and Community Supervision Order: Youth (n=1) on RL and CSO had a total of 87 days on the device.

Table 5.37: Youth as sentenced twice or more to Electronic Monitoring									
	Days on EM								
SENTENCE	61-90	91-120	121-150	151-180	181-210	241-270	331-350	Total Days	Average Per Youth
1) Community Supervision Order & Supervised Probation (n=5)	0	2	1	2	0	0	0	700	140.0
2) Deferred Custody Order & Supervised Probation (n=3)	1	0	0	0	1	0	1	628	209.3
3) Undertaking and Community Supervision Order (n=2)	1	0	0	0	1	0	0	293	146.5
4) Undertaking and Supervised Probation (n=1)	0	0	0	0	0	1	0	268	268.0
5) Reintegration Leave & Supervised Probation (n=2)	1	0	0	1	0	0	0	267	133.5
6) Supervised Probation and Interim Judicial Release (n=1)	0	0	1	0	0	0	0	144	144.0
7) Reintegration Leave and Community Supervision Order (n=1)	1	0	0	0	0	0	0	87	87.0
TOTAL (n=15)	**4**	**2**	**2**	**3**	**2**	**1**	**1**	**2387**	**159.13**

Youth who were sentenced to EM twice or more (n=15) received 2387 days on the device, averaging 159 days per offender.

5.4.2 Days on EM

Figure 5.1 shows the total amount of time youth spent on EM over the three years of the pilot. The minimum time spent off the device was 12 days and the maximum time was 349 days. The average time spent on EM was 115 days.

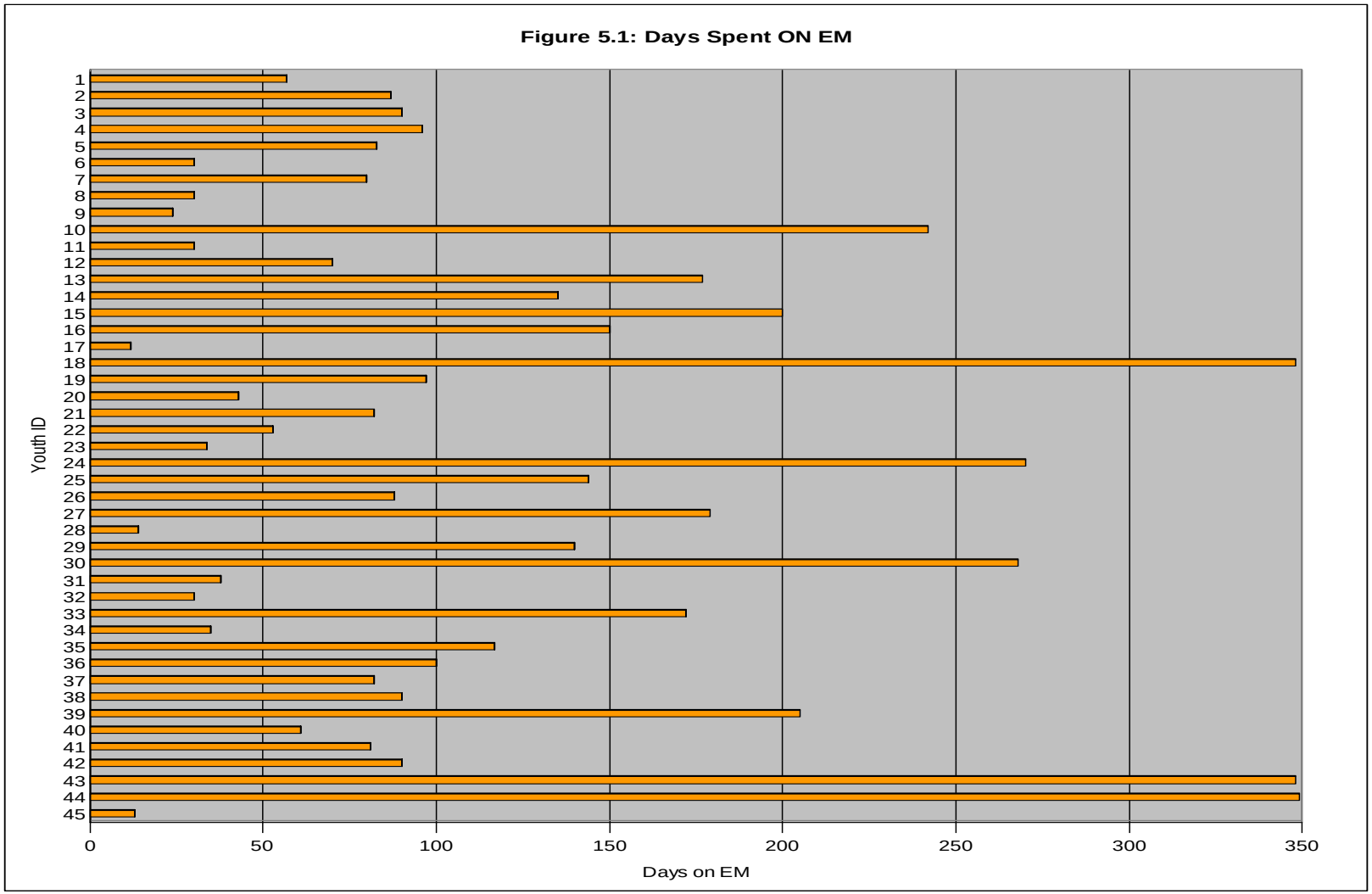


Figure 5.1: Days Spent ON EM
Youth ID
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
0
50
100
150
200
250
300
350
Days on EM

5.4.3 Compliance and Monitoring of Conditions

EM has helped in confirming locations of youth, and their compliance with conditions. When youth breach their conditions by tampering with or removing their devices, alerts are sent immediately to that youth's worker, who will try to coach the youth back into compliance. They may also contact the Stolen Auto Unit (SAU) to have the young person arrested.

The following two figures/ Tables (Figure 2 and Table 5.38) indicate removal of devices and time until arrests. These figures/Tables indicate the incidents and offending behaviour during time off EM. In total, 15 youth cut their devices (10 cut one time, 1 cut twice, 1 cut three times and 3 youth cut four times) for a total of 27 occurrences. Most (67 percent) were arrested within 24 hours, averaging 5.4 days until arrest and the maximum time until arrest was 61 days (4 percent). If the 61 day case is removed, the average time until arrest was 3.3 days.

Figure 5.2: Number of incidents and Time until Arrest

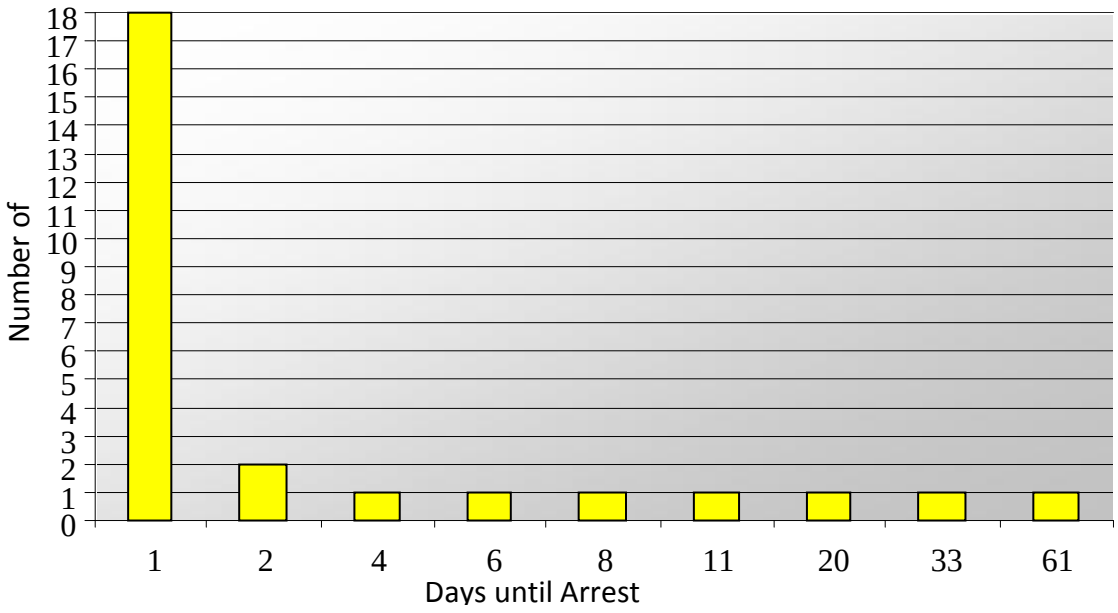


Table 5.38 provides a breakdown of youth who cut or tampered with their devices and their subsequent offending behaviour. In total, fifteen youth removed their EM device. Seven out of the fifteen youth had auto theft re-involvement while fourteen out of the fifteen youth had were re-involved with other offences. A total of 16 auto theft convictions were incurred along with 73 other convictions.

The following example is provided to demonstrate how to follow Table 5.38: Youth 1 (ID) had 3 cut and runs, and for the first occurrence had 2 auto theft convictions and 2 other convictions; the second occurrence he/she had 1 auto theft conviction and zero other convictions. During the third occurrence he/she had no convictions for auto theft or other charges because he/she was apprehended before engaging in criminal activity.

Table 5.38: Device Removal and Offending Behaviour

ID	Auto Theft				Other			
	Cut 1	Cut 2	Cut 3	Cut 4	Cut 1	Cut 2	Cut 3	Cut 4
1	2	1	0	--	**2**	0	**0**	--
2	1	--	--	--	**0**	--	**--**	--
3	0	--	--	--	**2**	--	**--**	--
4	1	0	0	0	**3**	3	**2**	3
5	1	--	--	--	**5**	--	**--**	--
6	0	--	--	--	**2**	--	**--**	--
7	1	--	--	--	**4**	--	**--**	--
8	0	--	--	--	**2**	--	**--**	--
9	0	--	--	--	**1**	--	**--**	--
10	0	0	0	0	**2**	5	**4**	2
11	4	2	2	--	**2**	5	**5**	--
12	0	--	--	--	**3**	--	**--**	--
13	0	--	--	--	**1**	--	**--**	--
14	0	0	0	0	**2**	3	**0**	1
15	1	--	--	--	**9**	--	**--**	--
TOTAL	**11**	**3**	**2**	**0**	**40**	**16**	**11**	**6**
AVERAGE	**0.7**	**0.6**	**0.4**	**0.0**	**2.7**	**3.2**	**2.2**	**2.0**

As the Table indicates, the maximum times a youth removed or tampered with his/her device was 4 times. The minimum number of convictions once the device was removed was 0 for auto theft and other convictions, while the maximum convictions were 6 auto theft and 13 other convictions.

5.4.4 Offender Re-involvement wearing an Active EM device

Table 5.39 shows offender re-involvement with an active EM device. Five youth were re-involved with auto theft while wearing an active EM device. These youth incurred 12 auto theft charges. Ten youth were re-involved with other offences while wearing an active EM device, for a total of 14 other charges. In most of these cases the arrests were quick, some within minutes, the same day, or within a few days. The quicker the apprehension of youth when they had cut and run, the more likely that further charges of auto theft or were avoided[14].

Table 5.39: Auto Theft Re-involvement (ATR) with an Active EM Device

# of Past Youth EM Cases	Youth with ATR	Total ATR Charges	Youth with Other Re-involvement	Total Other Re-involvement Charges
45	5	12	10	14

5.4.5 Successful and Unsuccessful Completion of EM terms

The EM group consisted of 45 youth but in assessing success and completion of EM, only 43 cases could be used because two youth died while on EM (one committed suicide while the other was murdered). These two cases were not excluded from the evaluation

[14] This information is based on information discussed in interviews with The Winnipeg Police Service and Crown Attorney's.

because they had important data for daily contacts and criminal behaviour. They were excluded within the phase at the point when they were deceased.

Complete success on EM for the purposes of this evaluation can be defined as no new criminal or technical offenses while on EM. Out of 43 cases, only 7 youth successfully completed terms with varying ranges of duration which are reflective of sentence type and term. Successful completion and days on EM included:

Table 5.40: Successful Completions and EM Duration			
0-30	**31-60**	**61-90**	**91+**
3	0	4	0

Success with minimal breaches includes no new criminal charges and fewer than three technical charges. Nine youth reached this level of success, or 20.9% of the EM group. Thus, a total of 16 youth (37.2%) completed the project with less than 3 technical breaches.

Two youth finished their EM sentence with more than three breaches, or 4.7% of the EM group. Finally, 25 (58.1%) youth did not complete their EM sentence because they had several criminal and technical convictions. Typically when youth do not complete EM successfully, depending on the severity of charges and / or convictions, they may spend time in custody – either the youth center or adult custody. When offenders are sentenced to EM they are under the age of 18; however, they need to complete their sentence whether or not they turn 18 within that time. Therefore, some individuals on EM when they complete or re-offend may be over the age of 18 and may be sentenced to adult custody. Some youth/ adults are resentenced to EM.

Table 5.41: Levels of Successful Completions of EM				
# of Past Youth EM Cases	**Complete Success[2]**	**Success with Minimal Breaches [3]**	**Complete with Breaches only[4]**	**EM Incomplete[5]**
43[1]	**16.7%**	**20.9%**	**4.7%**	**58.1%**
[1]Two Deceased Youth are not included in Total				
[2] Complete Success: No Criminal or Technical Charges				
[3] Success with Minimal Breaches: No Criminal Offenses and fewer than 3 Technical Charges				
[4] Finished EM with Breaches Only: No Criminal Offenses and more than 3 Technical Charges				
[5] EM Incomplete: Convicted of Criminal Charge(s)				

5.5 Summary

Participant Characteristics

Overall, youth in both groups were equivalently matched. The only significant differences between the two groups were that youth on EM were more likely to reside at home and that youth on EM had higher levels of education. Looking at the Criminal History phase, youth in both groups had similar offending patterns for auto theft related charges, other charges and technical charges. However, once all charges were combined, the differences were significant, showing that youth on EM had higher average numbers of charges per youth.

Daily Contacts

Daily contacts between youth and their workers were examined, and both groups were compared to see whether EM had an impact on daily contacts. In-person, other and non-compliance formal contacts showed no statistically significant differences found between groups over the four phases. On the other hand, the comparison group had significantly more collateral contacts than youth in the EM group. For non-compliance informal contacts (NCI), there were statistically significant increases in violations for the

EM group from Pre-EM to EM. These results could be explained by closer supervision of youth on EM by the device and/or staff, or because youth are committing higher numbers of violations with the device.

Criminal Behaviour

Typically the impact of an intervention is not seen until two to three years after an intervention or the program itself. As seen within the EM pilot project, there were small but significant changes during the EM phase and the Post-EM 1 Year phase. Post-EM 2 Years demonstrated the most significant impact on the youth who wore the devices, as seen below. However, only 44% of the EM group were followed into the Post-EM 2 year, so the results for this period must be interpreted very cautiously.

Auto theft related charges

For the Pre-EM phase, youth on EM had higher numbers of auto theft convictions than youth in the comparison group prior to assignment to the EM program, and these results were at the 0.09 level. For the EM phase, only the EM group had a significant reduction from Pre-EM to EM. However, the percentage decline for the two groups was almost identical (48% for the EM group and 44% for the comparison group. The Post-EM 1Year phase revealed that the EM group had a decline in auto theft related incidents from Pre-EM to Post-EM 1 Year, and these results were statistically significant: EM youth had a decline of 51% compared to Non EM youth with a decline of 37%.

Finally, Post-EM 2Years for the EM group only showed the largest statistical differences between the means from PRE-EM to Post-EM 2 Years for auto theft

offending with a decrease of 0.75 per youth, compared to the Non EM group, with a decrease of 0.13 per youth. However, less than half the youth were tracked to the Post-EM2 period, so these results are not reliable.

Other offences

For the Pre-EM phase, there were minor differences for other offences between the two groups. While the EM phase did not show statistical significance, the differences between the two groups were noticeable. However, the percentage change was very different for the two groups (an increase of 36% for the EM group and decrease of 16% for the comparison group). The Post EM 1 Year indicated that both groups had an change in other offences, with the EM group increasing by 56% and with the Non EM group increasing by 69%. Finally, Post EM 2 Years yielded a significant result for the EM group with a decrease in other offences by 61%, while the Non EM group had a decrease of 42% (not statistically significant).

Despite the equality in the groups, the EM group were more engaged culturally in Auto Theft then the Non EM group. This could equate for some of the differences in other offences.

Technical offences

Pre-EM to EM showed no change for technical offences for the EM group, but a 20% decrease for the Non EM group. Next, Pre-EM to Post 1 Year EM found similar decreases in technical offences for both groups, EM youth (19%) and Non EM youth (25%). Finally, Pre-EM to Post 2 Years EM showed statistical significance for the EM group with a 74%

reduction; even though the Non EM group had a 44% reduction, the findings are interesting, but were not significant.

Combined offences

The criminal history phase showed significance between groups, at a probability level of 0.06, in that youth in the EM group had significantly higher means (18.3) compared to the Non-EM group (12.7).

Pre-EM to EM showed no changes for the EM group and a 23% decrease in combined offences for the Non EM group. Pre-EM to Post 1 Year EM showed a small decrease in combined offences for both groups; EM youth (8%) and Non EM youth (6%). Finally, Pre-EM to Post EM 2 Years showed a statistically significant decrease in offences for the EM group (66%) compared to the Non EM group (30%) which was not significant. However, as noted above, less than half of the youth were tracked to this period.

Success of EM

Seven out of 42 (16.7%) youth completed the program with no new criminal or technical charges. An additional 9 youth (20.9%) had no new criminal charges and less than three technical charges and 2 youth (4.7%) had 3 or more breaches with no new criminal charges. Over half the youth (58.1%) did not successfully complete their EM sentence. This failure group was defined by new criminal charges and in some occasions five or more technical violations.

Chapter 6 will synthesize the qualitative and quantitative findings in relation to the evaluation research questions stated earlier in the report, examining if the goals and objectives of the EM pilot were met.

CHAPTER SIX

DISCUSSION

The evaluation questions outlined in the methodology chapter are discussed here by combining the qualitative and quantitative data results. This chapter is divided into six sections: 6.1 Project Details; 6.2 Project Implementation; 6.3 Public Safety; 6.4 Offender Accountability and Recidivism; 6.5 Enhancement of Community Supervision; and 6.6 Relevance.

6.1 Project Details

1.) Discuss the cost of the EM pilot project

The funding proposal for the EM pilot indicated that Manitoba Youth Corrections Department had determined that 2.5 staff were required for the GPS EM program for a maximum of 20 youth at one time. This included two full time staff for supervision and one part time staff for vacation coverage and standby support.

Staff/stakeholders and management were asked if they believed that the EM pilot project was cost-effective. The majority of staff and stakeholders (56%) felt that EM was not cost effective, reasoning that EM has never been fully utilized. At no point during the pilot project were all 20 devices used at one time. About one quarter of the respondents (24%) felt that EM was cost effective and the remaining respondents (20%) were unsure of the costs associated with EM. It was suggested that other types of technology besides active GPS may be more appropriate and more cost effective for this group of offenders. Other types of monitoring could consist of updated GPS systems,

Radio Frequency (RF) or other up and coming technology. Note: Sufficient information/ data was not available to conduct a cost-benefit analysis of the EM pilot program.

2.) **How many youth have been served by the EM project?**

In total, 57 youth took part in the EM program between the years of 2008 and 2011. Forty-five of those youth were included in the EM evaluation. Twelve youth were not included in the evaluation because they began EM after the evaluation data collection had begun.

2a) How does this compare with the initial projections of participation?

There were no formal projections on number of youth to be selected for EM in the first, second or third year of the pilot. Manitoba Youth Probation Services (MYPS) anticipated that cases would enter and exit EM on a regular basis depending on sentence status, completion of sentence and/or re-involvement or violation of conditions (Apter, B., personal communication, November, 18, 2011).

6.2 Project Implementation

3.) What are the personal and demographic characteristics of the youth served by the project compared to the youth in the comparison group?

Table 6.1 examines the differences personal and demographic characteristics of EM youth and the comparison group used for the evaluation.

Table 6.1: Average Characteristics of Youth within the EM Evaluation:	
Youth on EM:	**Comparison group:**
Age: 17.2 years **Ethnicity:** Aboriginal **Education:** Grades 9-10 **Employment Status**: Student **Living Arrangements:** – Living away from parents: No – Frequent Address Change: Yes – Problematic Living: Yes – High Crime Community: Yes **Gang Affiliation:** – Associate – Most common gang affiliation: MOB **Risk Level:** 50+ **Age of first charges and convictions**: – Age of first charge: 13 – Age of first AT charge: 13.4 – Age of first conviction: 13.3 – Age of first AT conviction: 13.7	**Age**: 16.8 years **Ethnicity**: Aboriginal **Education**: Grades 5-8 & 9-10 (split) **Employment Status**: Student **Living Arrangements**: – Living away from parents: Yes – Frequent Address Change: Yes – Problematic Living: Yes – High Crime Community: Yes **Gang Affiliation:** – Associate – Most common gang affiliation: MOB **Risk Level**: 45-49 **Age of first charges and convictions**: – Age of first charge: 13 – Age of first AT charge: 13.4 – Age of first conviction: 13.2 – Age of first AT conviction: 13.6

Age and Ethnicity

Youth in both groups were similar in age and ethnicity. Youth on EM averaged 17.2 years and were all Aboriginal. Youth in the comparison group averaged 16.8 years of age and 90% of the group was Aboriginal.

Education and Employment Status

Both groups of youth were mostly students. Youth on EM had higher levels of education, grades 9 and 10 compared with the non-EM group which were split between grades 5 to 8 and 9 to 10.

Living Arrangements

The only significant difference between the two groups was between living at home or away from parents. Youth on EM were more likely to live at home with parents (80.5%) than youth in the comparison group (40.5%). All other findings were similar for living arrangements.

Gang Affiliation

Similarly, youth in both groups were on average more likely to report being gang associates rather than gang members. Both groups most commonly reported affiliation with the Most Organized Brothers gang. It is important to note that affiliation to gangs in Winnipeg is probably higher than reported.

Risk Level

Both groups had high risk levels. Youth on EM were more likely to be classified as very high risk (55.6%) than the Non-EM group (42.9%).

Age of First Charges and Convictions

Youth in both groups had similar ages for first charges and convictions for auto theft and all other offence types.

Overall, youth in both groups are very similar in characteristics and demographics.

4.) Has the project encountered any challenges in implementation?

The major challenges in the implementation of the EM project involved the technology. No other major implementation issues were mentioned during the interviews. The majority of staff/stakeholders respondents (80%) reported challenges with the reliability

of the technology, citing two types of problems with the technology: GPS malfunctions and device malfunctions.

5.) How did the youth in the EM group respond to the structure of the program?

The majority of the youth felt positively (70%), but some youth (15%) had mixed sentiments and the remaining youth (15%) felt negatively about the program.

Positive Views

Youth who had positive views of the EM program indicated that all components were useful including the program itself, the cell phone and particularly the EM staff. The majority of youth who commented positively (66%) stated that compared to regular supervision, the EM program and support helped them remain in the community longer than they ever had before without breaching. Some youth added that being watched 24/7 was helpful with school and program attendance as well as helping with better compliance with their court mandated conditions.

Mixed Views

Youth who had a combination of positive and negative views regarding the EM program were placed into the mixed category (15%). For example, two youth commented that EM was helpful only for the time the bracelet was on, particularly with curfew, but once the device was removed the effects did not carry over. A common theme expressed by some of the youth was that the more they liked their worker the less likely they were to breach.

Negative Views

The remaining youth (15%) had negative views regarding the structure of the EM program. These youth stated that they did not believe that EM helped them at all. One youth commented that EM created high anxiety levels and that there was not enough support paired with the program. All youth that responded negatively believed that they did not need the assistance of EM that they were better off with regular probation, and that regular probation fulfilled all of the needs they required.

6.3 Public Safety

6.) What impact did EM have on response time to technical violations, auto theft and other crimes?

EM enables probation staff to confirm locations of youth to ensure they are in compliance with conditions set out by the court. One stakeholder indicated that "statistically if one of the offenders became non-compliant, the key to keeping the auto theft down was to gain their compliance as quick as possible. If we lost them and they went whereabouts unknown, auto theft grew." If and when youth breach their conditions, or remove their devices, the workers assigned to those youth are alerted. The workers attempt to coach the youth back into compliance informally (but not when the device is removed, which is then followed by arrest or apprehension). However, if that is not possible, they contact the Stolen Auto Unit (SAU), resulting in arrests.

Through the analysis of the interviews, it was apparent that staff and/ or stakeholders were aware of technical, auto theft and other violations sooner with EM

than without. Thus, they were able to take immediate action according to the specific level of violation. One respondent stated that,

> *when the youth became non-compliant, the way the system was designed, was that we [the Auto Theft Unit] were notified right away and were then able to locate them [the youth] and get them back into compliance much more quickly. As opposed to they could have disappeared for 5 hours before they [The ATU] got a phone call, this way we knew right away they were being non-compliant and we were able to deploy resources quickly.*

A total of 15 youth cut their EM devices and ran, with a total of 27 occurrences. The minimum time until arrest was within 24 hours (18 out of 27; 67%), and the maximum time until arrest was 61 days (1 out of 27; 4%) due to a youth being whereabouts unknown (WUK). The average time until arrest was 5.4 days. However, if the 61 day case is excluded, the average time until arrest would be 3.3 days.

7.) In the perceptions of respondents, was the EM project successful in meeting the original goals of improving public safety?

All respondents were asked if they felt that the public believed that EM contributed to public safety. Almost half of the staff/ stakeholders felt that the public supported EM because they believed it provided additional safety. However, many respondents felt that EM had been oversold, and that people were beginning to realize that it was not a panacea or a cure all. Approximately one-third of the youth responded that they perceived EM to have contributed to public safety.

6.4 Offender Accountability and Recidivism

8.) What were the differences between the EM group and the comparison group in terms of daily contacts?

To examine offender accountability, the analysis looked at in-person, other, collateral, non-compliance informal and non-compliance formal contacts. The daily contact information was divided into One Year Pre-EM; During EM; One Year Post-EM; and Two Years Post-EM (as outlined in the methodology chapter).

In-person contacts

Youth in the EM group had higher average numbers of in-person contacts than youth in the comparison group for all four phases. During EM, youth averaged 40.3 contacts, while the comparison group averaged 32.1 contacts. The largest difference between the groups was found during Post-EM 2 Years, where youth on EM averaged 10.8 more in-person contacts than youth in the comparison group.

During the interviews, staff and stakeholders noted that workers were spending more time in the office than in the community and that EM appeared to be replacing community work. However, the number of contacts suggests that in-person contacts in the community are still taking place.

Other Contacts

Youth in the EM group had higher average numbers of other contacts (police, crown and lawyers) than the comparison group for three phases (Pre-EM, EM and Post-EM 2 Years). During Post EM 1 Year, the Non EM group averaged 342 contacts compared to 315 contacts for the EM group. The largest difference between the two groups occurred

during Post-EM 2 Years where the EM group averaged 82 more other contacts per youth. This finding shows that youth in the EM group had higher levels of contact with the criminal justice system and had higher numbers of curfew contacts than youth in the comparison group

Collateral Contacts

Even though youth may be on EM, staff are still required to have knowledge of their whereabouts. When youth are monitored within the community, if youth are on EM their location is already known and there is not much need to contact collaterals.

Collateral contacts are contacts in direct relation with the youth, such as family, foster families, relatives, programming, schools, and/ or friends. Youth in the comparison group had higher levels of contacts for the Pre-EM and EM phases, while youth in the EM group had higher levels of contacts for Post-EM 1 Year. The largest difference between the groups occurred during the Pre-EM phase, where youth in the comparison group averaged 34.9 more collateral contacts. Thus, for two of the three phases, the Non-EM group had more collateral support than youth on EM.

There are three possible reasons for these differences:

1) There was a change in coding (2 Years Post-EM);
2) With the EM device, there was not as much need to call collaterals;
3) Collateral contacts may have been removed from EM officers and given to other staff such as probation officers or ATSW.

The last two of these possibilities are the most likely.

Non-Compliance Informal Contacts (NCI)

Non-compliance informal contacts occur when youth breach their conditions and are guided back into compliance by staff, with no suspensions or breaches as a result of the

occurrence. Youth in the comparison group had higher levels of contacts per youth for three phases: Pre-EM, EM and Post-EM 1 Year. The two largest differences between groups happened during Pre-EM (20.0) and Post-EM 1 Year (19.8) – indicating that youth in the comparison group had on average 20 more contacts per youth.

Note: Youth in the comparison group showed a significant decline in levels of contacts during 2 Years Post-EM while at the same time, informal contacts increased for youth in the EM group on average by 6 contacts per youth. Thus, EM did impact non-compliance informal contacts for youth in the EM group during the EM phase and the Post-EM 1 Year phase. In the context of the EM program, these results show that the EM program had short-term success for non-compliance informal contacts, during the program and one year after the program. However, distinctive definite patterns cannot be assessed for these two groups without examining the impact of a third year.

Non-compliance Formal Contacts (NCF)

Non-compliance formal contacts occur when youth breach their conditions and cannot be guided back into compliance by staff, resulting in suspensions or breaches that are documented in the youth's running records. Both groups of youth had relatively similar averages for NCF contacts for Pre-EM, EM and Post EM 1 Year. During Post EM 2 Years, the Non-EM group had slightly higher averages per youth.

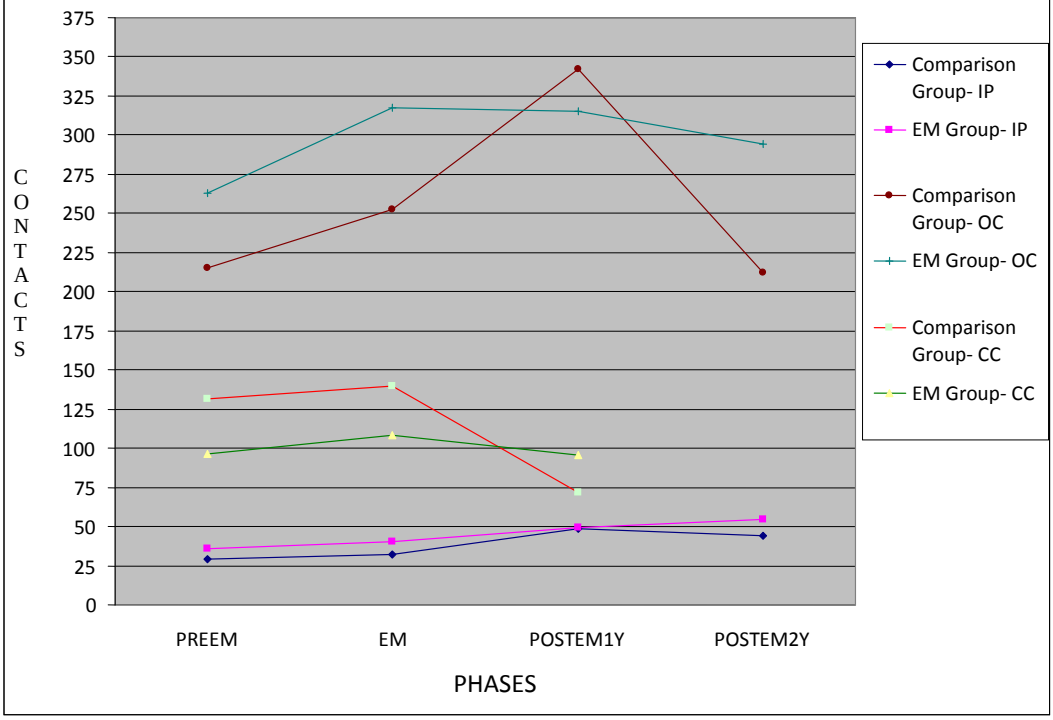
The data analysis revealed that the EM phase resulted in a higher number of breaches for both groups. This pattern could be explained by workers keeping a closer watch on both groups of youth. Also, staff knowledge and awareness of youth actions and breaches could have been augmented by the device. Therefore, staff could have

been more inclined to breach non-EM youth as well. Overall, it does not appear that EM impacted non-compliance formal contacts for Post-EM 1 Year or Post-EM 2 Years.

Phase Trends

The daily contacts between workers and youth in the two groups were examined over the four phases to determine if EM had an overall effect on the number of contacts. The combination of three types of contacts (in-person (IP), other (OC) and collateral contacts (CC)) are shown in Figure 6.1.

Figure 6.1: Line Graph of IP, OC and C Contacts



In-person contacts.

During all four phases (Pre-EM, EM, Post-EM 1 and 2 Years) youth in the EM group had higher average of contacts than youth in the comparison group. This pattern

demonstrates that youth in the EM program were seen in person on average more than the comparison group.

Other contacts.

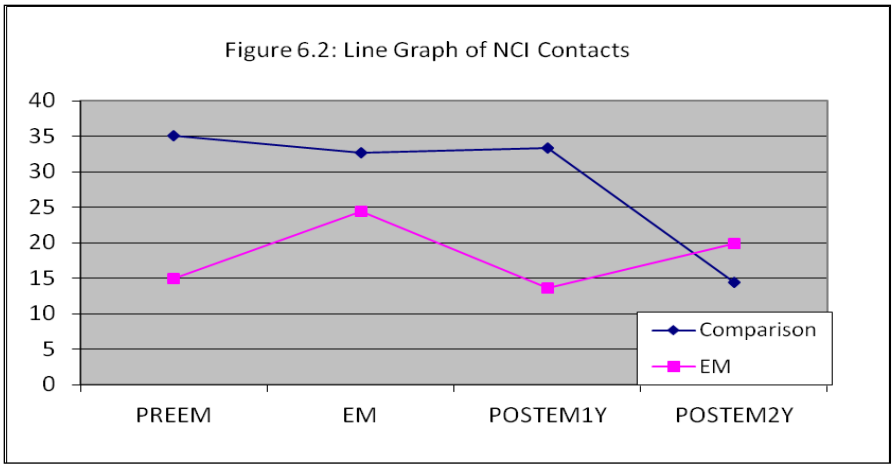
For three out of four phases (Pre-EM, EM and Post-EM 2 Years) the EM group had higher other contacts than youth in the comparison group. On the other hand, youth in the comparison group had a small increase of other contacts during Post-EM 1 Year. These results are important because they demonstrate that youth on EM had more other contacts (including curfew checks) than the comparison group. Thus, the EM device did not replace staff workers in the community.

Collateral contacts.

Youth in the comparison group had higher average numbers of collateral contacts for the Pre-EM and EM phases compared to the EM group. These results reflect higher numbers of collateral support for the Non-EM group. These trends could demonstrate the need for more support to be provided to youth in the EM group compared to youth in the Non-EM group.

Non-compliance informal contacts.

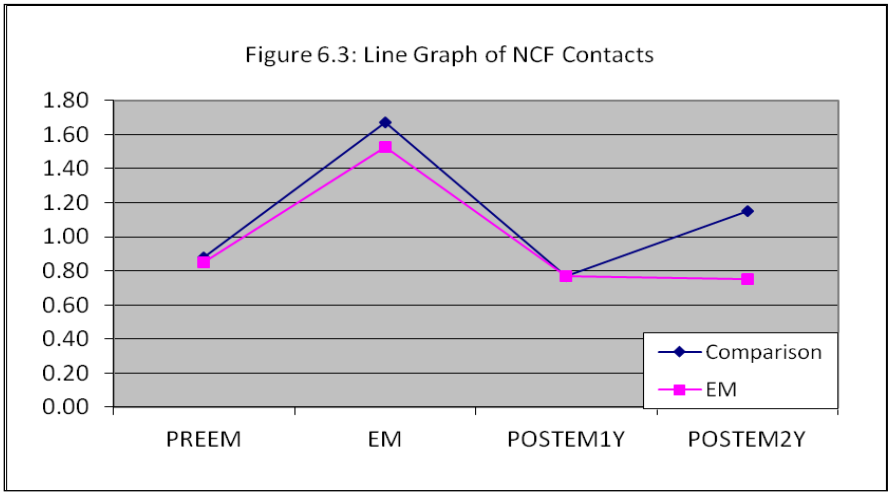
The pattern in Figure 6.2 demonstrates that the number of NCI contacts for the comparison group is down from Pre-EM to Post EM 2 Years, while the EM group is up over those periods. The numbers of NCI contacts between the groups differ slightly, where the comparison group showed higher numbers of NCI contacts compared to the EM group over three of the four phases.



The greatest differences between both groups can be seen during the 1 Year Post-EM period. Thus, it could be concluded that the EM program made short-term impacts for the EM group for NCI contacts. One plausible explanation for an increase in NCI contacts during Post-EM 2 Years for the EM group is due to this group of youth being higher risk offenders that could still require support in the community more than youth in the comparison group.

Non-compliance formal contacts.

Figure 6.3 shows the differences in youth for NCF contacts. As seen in the figure, there are minimal differences between the two groups.



For Pre-EM, EM and 1 Year Post-EM, both groups have similar patterns for NCF contacts. For Post-EM 2 Years a very small difference can be seen, which is not significant. Overall, EM did not show an impact on NCF contacts. Thus, for breaches/ violations EM does not appear to have a net-widening effect.

9.) Has the EM project been successful in meeting the original goals of offender accountability?

Most of the staff/stakeholders and management felt that youth on EM were more likely to be compliant than high-risk youth not on EM. They felt that public safety is enhanced because youth will be apprehended more quickly if they violate their release conditions. The majority of youth concurred with this and reported that EM helped them to comply with their conditions. However, a significant minority of youth felt that the regular supervision program was sufficient and that EM was not needed and most admitted to continuing to use drugs and to commit other offenses while on EM. When youth were asked about positive aspects of EM, the majority (84%) of youth stated that EM helped them with compliance, while others (67%) reported that being in the community was one of the best benefits of the program.

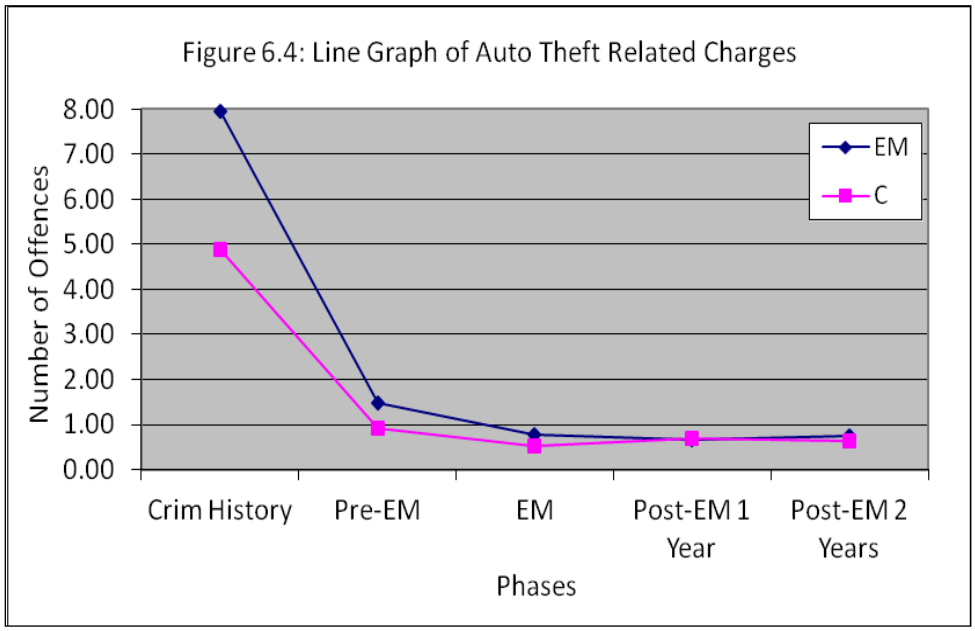
10.) What were the differences in Criminal Behaviour between the EM group and the comparison group?

Criminal behaviour of youth in both groups was examined by looking at convicted auto theft, other, technical and combined charges. The data from the four offence categories

were then further divided by five phases: Criminal History, One Year Pre-EM, During EM, One Year Post-EM and Two Years Post-EM.

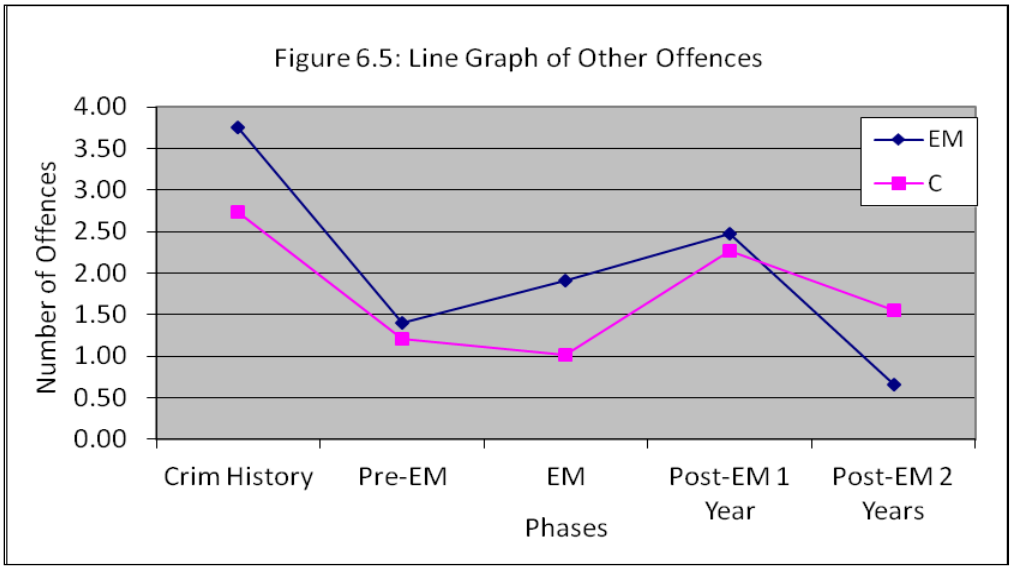
Auto Theft Offences

Pre-EM is the only phase that showed significant differences in auto theft offences between the two groups, indicating that EM youth had many more offences in the Pre-EM period. Paired samples t-tests revealed that youth on EM had significant differences for auto theft charges from Pre-EM to EM, Pre-EM to Post-EM 1Year and Pre-EM to Post-EM 2 Years. These results demonstrate that a significant decrease in auto theft offending occurred for the EM group. Although there were changes in the Non EM group, there were not significant. All phases demonstrated that the EM group had higher averages of auto theft per youth compared to the Non-EM group. Figure 6.4 shows Pre-EM the decline of auto theft offending over the phases.



Other Offences

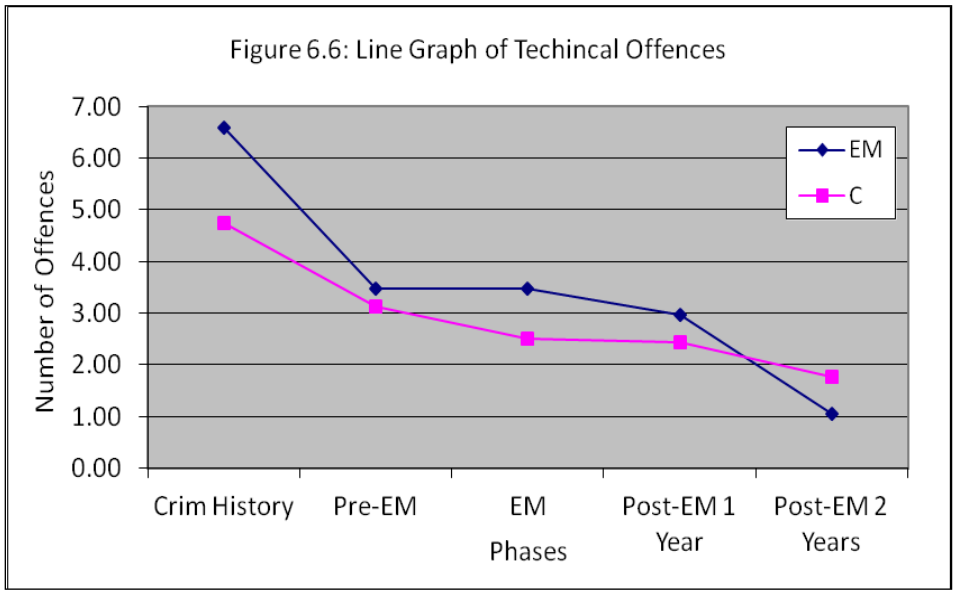
None of the phases showed statistically significant differences between the two groups when examining other charges. For Pre-EM, EM and Post-EM 1 Year, the EM group had higher averages per youth than the Non-EM group. However, at Post-EM 2 years, the EM group had a large decline in other offences (see Figure 6.5). However, statistical tests examining each group independently revealed a small decrease in other offences for the EM group from Pre-EM to Post- EM 2 Years.



Technical Offenses

Analysis of technical offences yielded no significant differences between groups. The rates between the two groups were very similar: youth on EM averaged 3.0 offences compared with youth in the Non-EM group who averaged 2.5 charges. Paired samples t-tests for both groups showed significant results for both groups for Pre-EM to Post-EM 2 Years. Youth in the comparison group showed smaller differences than the EM group for change in technical charges.

Figure 6.6 demonstrates that during Pre-EM, EM and Post-EM 1 Year that the EM group had higher averages per youth than the Non-EM group. However, a slight decline is seen for Post-EM 2 years, indicating that the EM group had a decline in technical offences.

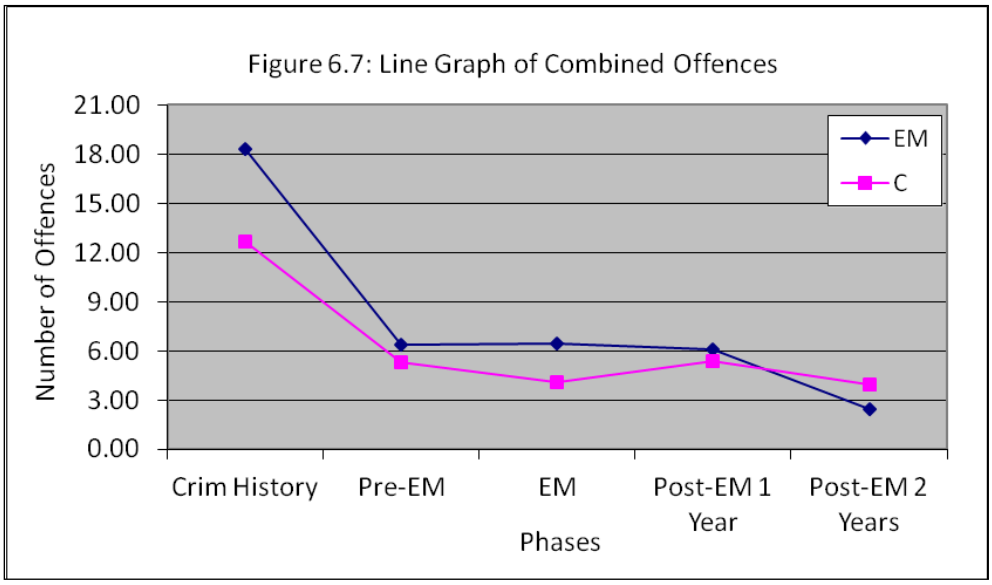


Combined Offenses

Criminal History is the only phase showing differences in combined offences between the two groups, indicating that EM youth had higher levels of convicted offences compared to the Non-EM youth.

Both groups of youth were tested separately from Pre-EM to Post-EM 1 Year and Pre-EM to Post-EM 2 years to see if any changes had occurred. Youth in the comparison group showed no significant differences. However, the EM group showed a decrease indicating that the EM intervention appears to have had an impact on combined offences. Examining Figure 6.7, the EM group has higher averages for Pre-EM, EM and Post-EM 1 Year with a substantial decrease of offences during Post-EM 2 Years.

However, less than half the youth were followed to the Post-EM 2 stage, so the results for this period are not reliable.



Summary

Each type of offence – auto theft related, other, technical and combined offences— were examined between groups and within groups to see if the EM intervention had an impact on the youth. Both groups have changes in sample sizes for the recidivism periods, Post-EM 1 Year (EM, n= 36; Comparison, n=35) compared to Post-EM 2 Years (EM, n=20; Comparison, n= 22).Overall, the magnitude of the numbers is larger for the EM group when compared to the Non EM group.

Table 6.2 shows percentage differences for offences from Criminal History to Post EM 2 Years. This data shows that EM made the most impact for other, technical and combined offences, while both groups saw a large reduction in auto thefts.

Table 6.2: Percentage Differences for Offences from Criminal History to Post EM 2 Years				
GROUP	**Auto Theft**	**Other**	**Technical**	**Combined**
EM	-91%	-83%	-84%	-87%
Non-EM	-87%	-43%	-63%	-69%
Difference	4%	40%	21%	18%

However, the data in table 6.3 shows percentage differences for offences from Pre-EM to Post EM 2 Years. The data in table 6.3 is more accurate in showing the impact on offences for all categories, because the times periods were set at one year, which is more precise than using criminal history as a baseline.

Table 6.3: Percentage Differences for Offences from Pre-EM to Post EM 2 Years				
GROUP	**Auto Theft**	**Other**	**Technical**	**Combined**
EM	-50%	-61%	-74%	-66%
Non-EM	-17%	-42%	-44%	-30%
Difference	33%	20%	30%	36%

11.) Has the EM project been successful in meeting the original goals of reducing recidivism?

The short-term post intervention timeframe is a particularly critical period because most offenders who reoffend do so in the two years following their release from a correctional institution[15][16].

Staff/stakeholders had mixed views about the success of the program. Slightly over half of the staff/stakeholders and management respondents (54%) felt that EM did

[15] Griffiths, C and Cunningham, A. (2003). "Chapter 8: Release and Re-Entry." In Canadian Criminal Justice: A Primer. Scarborough: Ontario, pg. 277.

[16] Note: caution is required when examining the 2 year figures because they are based on a limited number of offenders.

not reduce recidivism. Many of these respondents felt that EM only delayed offending and believed that youth returned to their delinquent ways once the bracelets were removed. About one-third of staff/stakeholders and management believed that EM did reduce recidivism rates, though their comments suggested that they were actually focusing on the direct impact of the bracelets rather than the long-term impact of the EM program.

Young offenders were also asked about the impact of EM on offending. Sixty percent of the respondents felt that the overall impact of EM was to reduce crime in the community. Almost half the youth reported that their experience with EM would make them less likely to commit auto theft, while about one-third reported to be more likely to steal cars when the bracelet was removed.

The quantitative data showed that EM did reduce recidivism, especially for the EM group, with the largest impact seen in the reduction of auto theft offences (see Table 6.3).

12.) What was the psychological and physical impact of being placed on EM?

EM may be perceived as punishment or as an opportunity for a second chance. Renzema's (2010) review of the EM literature notes that how youth perceive their time on the device (punishment or second chance) is directly related with recidivism rates; youth who saw EM as a second chance were more likely to avoid recidivism (2010,3).

Youth participating in the evaluation were asked about the mental and physical impact of wearing the bracelet. Approximately half the youth (52%) indicated that EM was a gift or a second chance. Some youth commented that being watched/ tracked in

the community kept them from committing crimes because they did not want to get caught and be sent back to prison. The remaining youth (48%) stated that EM affected them mentally in negative ways, and viewed EM as punishment.

Several youth (40%) complained about the physical aspects of EM. Comments were made about the bracelet leaving marks, scratches and bruises, and some youth complained that EM was uncomfortable, hard to get used to when playing sports, and awkward during sleep and when taking showers. Overall, youth commented that they barely noticed the bracelet after awhile. Some youth complained that once EM was removed, their leg felt "naked" and one calf muscle was noticeably larger than the other.

6.5 Enhancement of Community Supervision

13.) Was the EM and comparison group successful?

Successful completion for the purposes of the evaluation is defined as no new technical breaches or charges/ convictions, or success with no breaches. None of the EM youth successfully completed the first post-EM year, while seven of the comparison group youth successfully completed the same time frame.

Seventy-two youth in total were included in the one year post-EM follow-up, including thirty-six youth on EM and thirty-five youth in the comparison group. Two youth passed away during the course of the evaluation, one youth was murdered and the other youth committed suicide. Thus, the total number of youth in the evaluation was eighty five rather than eighty seven.

One Year Post-EM

Eight youth from the EM group and seven from the comparison group completed the Post-EM 1 Year phase with less than three breaches. One youth from the EM group and three youth from the comparison group had several technical charges but no new criminal charges/ convictions. The failure rate for the Post-EM 1 year period was 75% for the EM group and 51.4% for the comparison group. The low success rate for the EM group indicates that EM did not have a major impact on behaviour in the year following the program.

Overall, youth from the comparison group had higher success compared to the EM group. However, the youth in the EM group are at higher risk to re-offend; therefore, it was expected that the comparison group would have higher rates of completions.

Two Years Post-EM

Forty- one youth in total were tracked for two post treatment years, including eighteen youth on EM and twenty three youth in the comparison group. Forty four youth in total were excluded from post treatment of two years, including twenty-five youth on EM and nineteen youth in the comparison group, because they did not spend six months or longer within this time period.

Four youth from the EM group had successful completions, compared with three youth from the comparison group. Three youth from the comparison group had less than 3 breaches and no new criminal charges. Overall, four youth from the EM group and six youth from the comparison group successfully completed the Post-EM 2 Years.

Only twenty percent of the EM group and 72.7 % of the comparison youth completed the phase 2 Years Post EM with less than three breaches and no new criminal charges.

14.) Does EM result in net-widening?

Respondents felt that EM neither reduced levels of non-compliance nor did it necessarily cause more non-compliance violations. Rather, staff/ stakeholders were aware of the violations sooner and were able to take immediate action.

The quantitative data also showed that EM did not necessarily have a net-widening effect on the youth in the program. Rather, EM had the opposite effect; youth in the comparison group had more Non-compliance Informal (NCI) contacts during the EM phase. EM youth averaged 24.4 NCI contacts while the comparison group averaged 32.7 NCI contacts per youth. Both groups had increased non-compliance Formal (NCF) charges during the EM phase and did not significantly differ with EM youth averaging 1.53 NCF contacts per youth and the comparison youth averaging 1.67 NCF contacts per youth.

Finally, technical violations during the EM period showed no significant differences between the two groups. The averages of both groups for technical offences speak to this –EM youth (3.0) and the comparison youth (2.5)—and the differences were not statistically significant.

6.6 Relevance:

15.) What were the benefits and drawbacks of running an EM project?

Overall, the EM pilot project presented more benefits than limitations. This section will look at the impact EM had on staff and stakeholders, youth offenders, family and programming.

Benefits of EM

Impact on staff and stakeholders.

Most of the staff/ stakeholders supported the program and found the project very helpful. The majority of staff (58%) commented that EM was helpful for tracking purposes but that it did create extra workload, extra staffing, and a need for more equipment and additional paperwork. However, the extra work that accompanied the project was outweighed by the positive features. Most of the stakeholders (88%) who supported the EM program believed that EM reduced workload because the EM youth did not need to be checked unless there is a violation and because EM data made it easier to prosecute youth.

Impact on offenders.

The majority of youth (84%) said that EM helped them with compliance and many youth reported that being able to remain in the community was one of the largest benefits of the program. Other benefits reported were being with the family, saving face with peers and the extra support that accompanied the program.

Impact on the family.

Probation officers reported that approximately 90% of comments from families concerning EM were positive. Almost half the youth (48%) reported that EM had a positive effect on their families stating that their families liked having them at home rather than in custody.

Impact on programming and school attendance.

Staff and youth reported that the schools believed that EM was beneficial because it worked as a reminder and encouragement for school and program attendance. Other positive aspects of EM reported were

- Higher compliance levels compared to youth in the NON-EM group;
- A statistical difference in offending behaviour for youth in the EM group two years after the program;
- Assistance with investigations (helping to clear or confirm youth involvement);
- Allowing for immediacy of response and intervention at critical violation points or junctures in youth's offending cycle; and
- Having the use of a cell phone accompanying the EM device.

Limitations

Several limitations were also identified, including technology limitations (location failures), human error factors, pressure on human resources and the possibility of softening the zero tolerance policy. This section looks at the negative impacts of EM on staff and stakeholders, youth offenders, family and programming.

Impact on staff.

The majority of staff (58%) discussed the shift in discretionary power due to EM. Most believed that EM does not allow for clear decision making. Discretionary power as described by a staff member is "the ability to use my own discretion on a case to case

basis." Several staff (29%) commented that EM effects case management, suggesting that more individual discretion is needed on the following areas: case management plans, risk level, the ability to consider more cognitive and personality factors of youth for enhanced discretion of placing them on EM, and the length of time that the youth will be in the program.

Another drawback of EM mentioned by staff was that electronic monitoring seemed to be replacing community work. Many staff (64%) mentioned that with EM, their daily contact with the youth was decreased substantially. "*EM is taking over our work because kids are not seeing the EM worker as they would see their regular ATSW*." Some staff/ stakeholders felt that the EM program meant that workers would verify the location of their youth via the computer, thus eliminating their presence in the community.

Impact on stakeholders.

Stakeholders only had a few negative comments about the impact of EM, including the technology, and the inability to use EM data for fishing expeditions for police officers due to legal constraints. Fishing expeditions are accessing EM software to see constant youth whereabouts and using the location information to place or remove youth from certain suspected crimes. However, stakeholders stated that these drawbacks were outweighed by the positive aspects of EM.

Impact on offenders.

Many limitations of the EM program were discussed by youth in the project, including charging the device (68%), discomfort caused by the device (44%), and too much supervision (20%).

Impact on programming and school attendance.

Staff/stakeholders reported that there had been many growing pains with schools and other programs that were associated with EM, such as cell phone use during school hours and expectations that the youth will always be available for their workers. Some native elders did not like the EM program because it did not fit with their restorative justice philosophy. Overall, the impact of EM on all individuals associated with the program was more positive than negative.

16.) Have any unintended consequences resulted from the EM program? If so, what were they and what effect did they have?

Most programs have unintended consequences and the EM program was no exception. These unintended consequences were both positive and negative.

Positive Consequences

According to staff and stakeholders the positive unintended consequences were that the EM program allowed more time for curfew checks of level 4 youth (NON-EM) and EM worked as a tool for some Fetal Alcohol Syndrome (FASD) youth as an external brain, working as a constant reminder to abide by the rules.

Negative Consequences

The negative unintended consequences according to the youth were that EM bracelets took too long to charge, youth disliked being watched and being labeled, too much extra support was required, time sentenced on EM was too long, and EM was a joke causing youth to want to cut the device. These findings are consistent with other youth studies as discussed in the literature review. Staff/ stakeholders commented that if an FASD youth is placed on EM, for the most part they will not understand the orders and cannot not draw a link between behaviour and consequences. Some staff reported that "they are impulsive kids and they will get breached on EM due to their disability. " However, the quantitative data results showed fewer technical breaches for the EM group compared to the Non EM Group.

17.) What was the average number of days that the youth remained on EM? What was the shortest and longest duration? What were the major reasons that youth remained on/ off EM?

The average number of days youth spent on EM was 115 days. The shortest time spent on the device was 12 days, and the longest time on the device was 349 days (with time in and out of custody). The main reason youth remained on EM was poor compliance levels along with technical and/or criminal charges. However, six youth (13%) had their EM sentences deactivated early due to progress, compliance or pro-social behaviour.

In regards to time spent in the EM program (Table 6.4), 8 youth (18%) completed an EM sentence and returned to complete an additional EM sentence, 12

youth (26%) completed EM and did not return to the program, while 24 (53%) did not complete their full sentence of EM.

Table 6.4: Time spent in the EM Program	
Time Spent on EM	***f***
Youth who completed EM and returned to complete an additional sentence	8
Youth who completed EM and did not return to the program	10
Youth who did not complete their term on EM	24
TOTAL	**43**

18.) Has the EM project been successful?

Complete success on EM for the purposes of this evaluation can be defined as a youth having no new criminal or technical offenses (see Table 6.5). Out of 43 cases, there were only 7 successfully completed terms with varying ranges of duration which reflect sentence type and term.

Table 6.5: Successful Completions and Time on EM	
1-30	3 youth
31-60	0 youth
61-90	4 youth
91+	0 youth

Even though completion/ success rates of EM sentences are low, the device appears to have had a neutral to positive impact on the majority of the youth in the pilot.

CHAPTER SEVEN

CONCLUSION AND RECOMMENDATIONS

The Manitoba Auto Theft Task Force developed the Winnipeg Auto Theft Suppression Strategy (WATSS). The Task Force included representatives from the Manitoba Provincial Department of Justice, Manitoba Public Insurance (MPI), the Winnipeg Police Service (WPS), Prosecutions, and the University of Manitoba (U of M). WATSS consists of three components:

1) A tiered approach to at-risk youth with intensive community supervision of high-risk youth;
2) A program requiring compulsory vehicle immobilizers for the most at-risk vehicles; and
3) Youth programming addressing the underlying causes of vehicle theft.

The Government of Manitoba decided to implement Electronic Monitoring in 2007. The pilot project was not really part of WATSS, it just an added component to WATSS. In April 2008, WATSS also added an electronic monitoring (EM) pilot component.

> Youth Correctional Services provides for the enhancement of supervision of very high and high risk youth auto theft offenders through a variety of methods including the application of electronic supervision and monitoring techniques to enhance public safety and increase the young person's accountability…. The EM program is intended to:
>
> - Assist with compliance and monitoring of Court Order conditions.
> - Monitor location in the community during specific dates and times.
> - Reduce criminal recidivism while under electronic supervision by interrupting the offending cycle through enhanced surveillance[17].
> - And, Allow staff intervention at critical junctures in the offender's life (Apter, 2008, p.4).

[17] It is expected that "technical violations" such as curfew compliance will increase, but that EM will hamper the offender's ability to "repeat criminal behaviour" and help complete a term of supervision without or with minimal repeat incidents such as auto theft while under EM auspices. It is not expected to contribute to reductions in recidivism after sentence term expiry.

Thus, in line with the goals of the EM program, this evaluation looked at the following categories:

- EM project details
- EM implementation
- Public Safety
- Offender Accountability
- Recidivism
- Enhancement of community supervision
- Relevance of EM

The WATSS program has helped to reduce auto theft in Winnipeg by over 80 percent. Because of the comprehensive nature of the program, it is difficult to separate the impact of EM from other WATSS components. Since WATSS began in 2005, there has been a decrease of approximately 11,000 auto thefts (R. Linden, personnel communication, March 2012). Only a very small part of this number could be attributed to the EM program.

Electronic monitoring as an intervention can be a complementary program when offered in accompaniment with other WATSS and MYCS programs. However, on its own the program would not be nearly as effective. This evaluation adds to the literature and should help to provide stronger guidelines for future EM projects and/ or evaluations.

7.1: Limitations

This evaluation of the EM pilot project encountered several challenges. Some were expected from the onset of the research, while others emerged over the course of the evaluation. This section discusses the limitations, describes their implications and provides possible solutions.

7.1.1 Clearance/ Access to Data

Access to the data was very difficult to obtain. Originally, the researcher anticipated that the Correctional Offender Monitoring System (COMS) would allow access to the youth criminal records. After careful analysis of COMS and the data from the system, along with recommendations from staff, the researcher concluded that this system was not the best way to access the data needed for the evaluation. Therefore, the researcher sought alternative methods for collecting data, including using the Canadian Police Information Center (CPIC) which would provide updated, detailed information of all youth within the evaluation. However, the researcher was advised not to be proceed with the application due to an overwhelming large demand for access to CPIC.

Another attempt was then made to access the Criminal Courts Automation Information Network (CCAIN). Given the timeline of the project, an application was not put forward due to the lengthy application and acceptance process. Thus, the researcher had to work with several staff members at Manitoba Youth Probation Services in order to access the appropriate information. The lack of access to the information systems had a significant impact on reporting timelines and on the nature of the final product. Access to the youth criminal justice data was very difficult for a third party evaluator despite a high level of cooperation from the Manitoba Justice officials responsible for the EM program. Some staff members were more helpful than others.

Recommendation: If program evaluations are to be conducted, it is necessary for researchers to have access to the appropriate information. Roadblocks and delayed

processes to accessing information should removed as much as possible. There should be more help provided to researchers/ evaluators to navigate through the systems such as guidelines delineating policies and procedures to make the process shorter and easier.

7.1.2 Data

From the commencement of the evaluation it was clear that the complex nature of the EM program could potentially complicate data collection and increase the likelihood that the evaluation would have partial or incomplete data.

Daily Contacts: During the first phase of data collection for the daily contacts, the researcher gathered and inputted all data from the paper daily contact logs because access was denied to the existing electronic database. During the second phase of data collection of the daily contacts, time and resources became an issue and the researcher was provided access to the electronic spreadsheet of information. Therefore, data collection and information from the first to the second collection period varied significantly and impacted some of the daily contact final results.

Criminal Histories: Two databases were used to access the criminal history data of youth offenders. The information was accessed through staff members, which complicated the collection process and caused inaccurate collection at some points. There was a need to return to the data several times to re-check work completed by

some staff. For example, in CCAIN pseudonyms[18] are used for individuals; the same individual could be in CCAIN under several different names.

Recommendation: Currently, daily contact reports are submitted monthly. To ensure accuracy and reliability of the recorded daily contacts information, daily entry and weekly submission is advised. Also, electronic entry should be mandatory, as it would make the information much more accessible. The forms should be simpler, more consistent and more straightforward. Random quarterly or semi-annual audits would help to ensure accuracy of data entry.

Secondly, a part time or full time permanent staff member rather than a temporary staff member should be maintaining and updating this information. It is suggested that this staff position be put in place to set up a new electronic filing system and to update the information weekly. It is also suggested that the daily contacts information be set up in two ways. These methods would ease the process when looking for certain individuals for research purposes.

1) Organized by Staff (Worker→ Year→ Month→ Week)
2) Organized by youth name. (Youth→ Year→ Month → Week)

For Criminal Histories, an updated, **simple** program that allows users to see entire criminal histories of offenders would be helpful. This program should have the ability to categorize criminal offending by charges, convictions, pending charges. There should be a few staff in charge of updating the program daily or weekly, rather than relying on Correction staff within the institutions to fill in the information when they have time.

[18] For example, looking up one person may prove to be a difficult task if he or she goes by several different names. For example: John Doe, John M. Doe and John Matthew Doe could be the same person. It is necessary to search each offender by date of birth and probation ID, not names.

7.1.3 Technological limitations

A major challenge in implementation of the EM pilot involved technological problems, including reliability, GPS malfunctions and device malfunctions. When the project initially began, there were daily location and communication failures due to the appropriate information not being broadcast through the towers. Therefore, information was not being relayed properly to the server. Sometimes there were occurrences of 24 hour or longer periods of location and communication failures. This is a typical issue with pilot projects. The problems decreased temporarily but have commenced again since June 2010 for unknown reasons. Along with transmission and receiving issues, there are also physical problems with the device itself including software and hardware issues (battery, hardware failures).

Recommendation: As technology advances, so will the software and hardware of EM. New technology should always be sought, with the option of working in conjunction with other service providers and companies.

7.1.4 Underage offenders and Parental consent

Interviews were completed with 25 of 43 youth, a response rate of 58%. There are several reasons why youth were not interviewed. First, the researcher was unable to contact some parents/ guardians of youth under 18 to obtain their consent for the participation of their child. Second, several youth and adults in the community did not want to participate after completion of EM. Overall, there was a lack of communication between probation officers, offenders, offender's guardians/ parents and the researcher which impacted the final compliance rate of interviews.

Recommendation: There is a greater need for increased communication between corrections staff and researchers in order to facilitate the research process. For future evaluations it would be beneficial to have several possible forms of consent, including a written consent form, telephone consent or in-person consent.

7.1.5 Lack of Information

The following data was lacking which would have helped the evaluation: a cost-benefit breakdown, a third year of the recidivism time frame, and data specific to public opinions about the public safety impact of EM.

Recommendation: It recommended that an internal cost-benefit analysis be conducted. Also, a continuation of this evaluation should examine third year recidivism time frames for youth and an examination of public opinions related to EM and public safety.

7.2 Recommendations

If the program continues within the piloted year and thereafter, the following recommendations emerging from the data analysis will be helpful to help manage and enhance the project's effectiveness or perhaps other youth justice projects or future pilot projects.

Youth Interviews

The EM evaluation recommends that there be more communication between staff and youth on EM. Given that EM may only succeed with certain youth, it is highly recommended to verify with each individual throughout the program that the apparatus

is working favorably, including pre-screening, during EM, and at the Post-EM interview. These interviews could reveal youth attitudes anticipatory of later recidivism after device removal.

Success on EM

Due to the nature of the youth in WATSS, the majority of the youth would not be successful on EM according the current definition of success. It is pertinent that the success of EM be re-categorized into similar categories as provided within this evaluation. The change in the definition of success would allow youth to see an end to the project.

Transferring Youth

The evaluation recommends a better process for transferring youth between workers be implemented. It was suggested that once youth finish the EM program and are taken off the device that they be kept with the same worker. The participants further stated that the continual transfer between workers could detrimentally affect the youth since the trust building cycle will need to continually re-start.

All staff who discussed this point mentioned that elimination of unnecessary transfer between workers would ultimately help to interrupt the offending cycle of the youth. However, if it is not possible to keep the same worker with caseloads, then a face to face meeting with all individuals involved should be arranged allowing for proper transitions. Greater communication between staff and youth in terms of transfer should help with the success of youth within the community.

More Staff Training

It was suggested that EM would work much better and faster if everybody was working confidently with the project. In order to improve the effectiveness of the EM program, more training must be offered both as refreshers and for additional staff.

Support

It is recommended that additional staff should be hired. Some of the suggested missing pieces of support were the need for more flexibility, making more effort to keep youth in the community, dealing with non-compliance in a more remedial community based manner, knowing where the youth are and work with them to stabilize them rather than expecting a certain level of compliance.

The suggestion was that more discretion (freedom to act or judge on one's own) is needed based on case management plans, risk level and cognitive or personality factors of the youth. Also, more discretion in length of time youth are wearing the device is crucial. Overall, the consensus was that the program provides a lot of supervision, and should be matched accordingly with support. If the support is lacking then a good opportunity to interrupt the offending cycle has been wasted.

Future technological improvements

Many staff/ stakeholders commented that they wished they would have known more about the technology before the implementation of the EM pilot, such as location accuracy, drift, false alerts, and the ability to alter inclusion and exclusion zones. This is specifically true for the ability to change the inclusion zone surrounding a youth’s home, because the tighter the zone is made, the greater potential for drift or false inclusion

zone alerts[19]. Manitoba's frequent false alerts and equipment failures within the pilot project are similar to other jurisdictions. There was some discussion of the necessity for future technological improvements including

- More information provided in the text message alerts such as location, accuracy of the location, and battery levels.
- Newer more adequate technology to allow for immediate responses including Blackberries and/or devices such as the iPad or the Blackberry Playbook.

Expansion

Many respondents commented that if the EM program remains the same, then the criteria to enter the program should be modified for more youth to benefit. One suggestion was to refocus the program entirely to be more inclusive of other offence types for the use of all specialty units (gang, sex offender, AT etc.).

[19] One example provided in the interviews discussed a youth who resides in a rough housing project on Gilbert Park, in the north-west area of the city. This housing project does not allow for downsizing of the zones because the side-by-side dwellings are too close in proximity. Thus, the zones needed to be increased to limit the false alerts, which allowed for this youth to be drinking at a neighbour's house when he/she should have been home for curfew. The situation was rectified when WPS performed a curfew check and found this youth at their neighbour's home. Had the technology allowed for altered zones, this complication would never have taken place.

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Appendix A- Data Collection Instruments

Three separate interview guidelines are included:

- Youth offenders
- Staff/ stakeholders
- EM project management

Youth offender interview guideline:	
1	What is your overall impression of Electronic Monitoring? Fill in the blank: I _____ Electronic Monitoring
2	How long have you been on EM?
3	Has Electronic Monitoring helped you? How? Did EM help you follow your court ordered sentence?
4	In your opinion, what are the positive aspects of EM?
5	In your opinion, what are the negative aspects of EM?
6	Do you think that Electronic Monitoring is a good option for youth serving auto-crime sentences?
7	Describe what it is/was like to wear the EM bracelet, physically and mentally?
8	Once you are off EM, will the experience make you less likely to commit other Auto Theft offences in the future? Would you like to avoid EM in the future? Yes/ No
9	What does EM mean to you?
10	Did you change your daily activities while on EM? What is your view of these changes in your activities?
11	Do you think that EM has helped to make a difference to the following: Public safety Reducing crime in the community
12	Did you hear about EM before you were sentenced to the program? From whom? What did you hear?
13	a) Did the Crown, Judge, or Defence Counsel talk to you about EM? b) Did the corrections staff explain the EM program? c) Did you understand what they meant? Explain.
14	Did you comply with your monitoring conditions? If you chose not to comply what did you do?
15	Do you think EM helps you to comply better with your release conditions or is your normal supervision enough?
16	How has EM affected your family? What has been the response in your home, explain. Positive, negative or neutral
17	How has EM affected your friends? What has been the response among your friends, explain. (Would they react to it: Positive, negative or neutral)
18	Do you use social networking (Facebook, Bebo, Twitter, Friendster, MySpace, High Five etc.)? Do you use the social networking to talk about your EM bracelet? If yes, did you post pictures wearing the bracelet?
19	What do you think your life will be like after the EM program? Explain.
20	Do you feel that the EM program was helpful to you? a) If no, why not? b) If yes, what part of the EM program was most helpful to you?
21	If you were given the choice, would you take an electronically monitored sentence?
22	If you could make changes to the EM program, what would you change?

23	Do you think Auto Theft has increased or decreased in Winnipeg?
24	Other Comments:

Staff and Stakeholder Interview Guideline:	
1	What are your perceptions of EM? Explain.
2	Has EM helped staff? Explain Has EM been a hindrance? Explain.
3	What is the impact of managing EM cases compared to non- EM cases? Do you need to manage EM cases differently from Non-EM cases?
4	What are the positive (pro's) and negative (con's) views about EM expressed by: - Youth - Families - Collaterals - Co-workers; and - WATSS partners
5	Are there any legal issues involved in implementing EM? If yes, what are some of the legal issues?
6	Do you think the EM program has done any of the following, explain. Reducing recidivism not including FTC Affect community perceptions/ safety Reducing the cost of supervision
Suggestions for the Effective Use of EM:	
7	How can the EM program be improved?
8	In your opinion, do you think that the EM program should be expanded to other crimes? Discuss.
9	Other Comments

Management of the EM pilot:	
1	**Program Description:** What are the goals/ objectives for using EM in the offender monitoring program? Do you think these goals are being met?
2	Has Electronic monitoring had an impact on the local justice system (i.e.: has there been an increase or decrease in offences since the pilot started?)? And can you justify it is because of Electronic Monitoring?
3	**Funding/ Costs**: What are the sources of funding for this pilot project? What was the anticipated cost of implementing the GPS equipment? - Specifically per unit - And cost per day/ per offender
4	Do you lease or own the equipment?
5	Is the program limited by a lack of budget for additional units?
6	Are there additional costs associated beyond the GPS equipment/ service that your agency spends to implement and operate GPS (i.e. overtime, training, new staff)? – Were these anticipated costs? – Who determines the fees?
7	Do you believe that EM will provide or has provided any savings (savings being either towards the community or instead of the youth being in custody)?
8	**Training:** Is ongoing or supplemental training offered to the staff?
9	Is there any training for the youth and their families? Or do they only sign the paperwork? And, is the family present?
10	**Technology:** What is the agency's access to an offender's historical tracking data? For how long is it available, and where is the data?
11	What is the frequency of GPS equipment failure?
12	What common types of problems do you experience with offenders trying to get out of/ avoid the GPS equipment?
13	What do you wish you had known about the GPS technology before you incorporated it into your offender monitoring program?
14	What changes to GPS hardware and/ or software would improve the effectiveness of the use of the technology?
15	What was the selection process used to determine which GPS product(s) or services your program would use? What were the decision criteria?
16	**Operations/ Maintenance:** What is the process for managing expected equipment maintenance issues (i.e. battery replacement)? What is the process for handling unexpected equipment failures?
17	What is the process for managing lost, stolen or damaged equipment (i.e. prosecution of offenders, required to pay for replacement costs, etc…)?
18	Describe if any emergency plans exist for: - Minor Service interruptions (local power outage)

	- Major Service interruptions (blizzard, tornado etc.) - Staff shortages
19	**Legal Issues:** How is EM GPS been used in court? If an offender violates the terms of their monitoring program and a technological GPS glitch is related, who testifies in court? For example: To specify a youth has been in a certain location or not.
20	**Lessons Learned:** Describe the benefits of GPS tracking compared with other methods your agency currently or previously used.
21	What obstacles did you encounter during the implementation and operation of GPS in your offender monitoring program(s)? Which was the most difficult to overcome, and why?
Suggestions for the Effective Use of EM (To ask all participants):	
22	How can the EM program be improved?
23	In your opinion, do you think that the EM program should be expanded to other crimes? Discuss.
24	Other

Appendix B- Paperwork from MYPS

Paperwork from MYPS including

- MPI and MB Justice Contract
- Daily Contact log example (ATSW)
- Process of EM for Winnipeg Auto Theft Youth Offenders

Youth Auto theft Contract between MPI and MB Justice

Manitoba Public Insurance (MPI) and Manitoba Justice (MB Justice). "Youth Auto Theft Contract." Contract date: August 1, 2005.

Very High Resistant (Level 4)
For those youth offenders who are designated by justice in the very high resistance group of level 4, Justice (through corrections) agrees to; …

- Take reasonable measures to enforce curfew orders, uses best efforts daily, in person contacts with each such offender on a 7 day per week basis;
- Use its best efforts to engage in other types of contacts with each such youth offender as deemed appropriate per justice through the corrections branch every 3 hours for a consecutive 16 hour period/ 7 days a week.
- Sporadic contacts and crisis management will occur in the remaining 8 hours daily;
- Take immediate action for non compliance by way of intervention or what justice deems acceptable."…

Highly Resistant (Level 3)
For those resistant offenders deemed in the high level 3, justice agrees to; …

- Take reasonable methods to enforce curfew orders; uses best efforts daily, in person contacts with each such offender on a 5 day week basis;
- Use its best efforts to engage in other types of contact with each such youth offender as deemed appropriate by justice through the corrections branch every 6 hours for a consecutive 16 hour period/ 7 days a week.
- Sporadic contacts and crisis management will occur in the remaining 8 hours daily;
- Take prompt action (within 24 hours) for non compliance/ curfew orders by way of intervention or such other actions as justice may consider appropriate in the circumstances; …

Intensive Supervision and Support Program (ISSP)

- For those youth offenders deemed in the high/very high risk group, justice agrees to;
- Where appropriate in the opinion of justice, enroll youth offenders in the Intensive Supervision and Support Program (ISSP) and utilize the resources of ISSP to monitor and encourage the participation of the youth offender's;
- Increase contact and curfew monitoring as deemed appropriate by Justice.

ATSW LOG

YOUNG PERSON:		PERIOD REVIEWED:	
Date of Birth:		Resistant/ Workable:	
Sentence Expiry Dates: Deferred:_____	Community Supn:_____	Custody:_____	
Probation:_____	Pending Court dates:		

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
In-person contacts																															
In Office																															
In Community																															
In Institution																															
Phone contacts																															
1st call																															
2nd call																															
3rd call																															
4th call																															
Curfew call																															
Other calls																															
Curfew checks																															
In Person (ATSW)																															
Phone (ATSW)																															
Other ATSW calls																															
Family contacts																															
In Person																															
Phone																															
Collateral contacts																															
Programs																															
Education AM																															
PM																															
Employment																															
WUK/UAL checks																															
Youth (ATSW)																															
Family (ATSW)																															
Collaterals (ATSW)																															
PO Case Consults																															
In Person																															
Phone/Email																															
Status																															
Suspended/Breached																															
UAL/WUK																															
In Custody																															
Reports Done																															

X - Non Compliance
√ - Compliance
SI - Safety Issue
A - Attempted

Comments:

The Outlined Process of the Winnipeg EM Pilot Project

Table B1 below outlines the process of EM for youth auto theft offenders in Winnipeg, reviewing the following information: Approval and acceptance for EM; Submission and case review (Selecting Youth); Review and approval by EM Manager; Duration of EM; Activation procedures; Violation Procedures; Supervision and Priority Response Protocol; Police Contact; Electronic Monitoring Center (EMC); Deactivation Procedures; and Device Removal. **Note: A fully detailed version of this information is available in the 2008 document "Policy and Guidelines Manual for Youth Auto Theft Offenders: The Winnipeg Pilot Project."**

Table B1: Process of EM
Approval and Acceptance for EM:
Eligibility factors and completion of "EM Suitability Checklist" are utilized to select youth for EM. No youth shall receive EM without the written permission of the EM Project Manager. No recommendation for EM shall be made in a PSR without having the matter reviewed with the Project Manager.
Submission and Case Review (Selecting Youth)
The Probation Officer and Area Director assess youth suitability for EM. The final decision for EM is the responsibility of the EM Project Manager. Submission for Consideration must include: • A completed EM suitability checklist; • Post Sentence Summary or Pre-Sentence Report as applicable; • Criminal History; • Police Report or Summary; • Current legal order(s); • Most recent risk assessment; and • Any other documentation considered relevant in assisting in the decision making process.
Review/ Approval by EM Project Manager
The Project Manager shall assess all EM referrals and make decisions on approval and equipment allocation based on the priority of requests to ensure the best use of the EM resources.

The Project Manager shall maintain a prioritized list of young auto theft offenders approved for EM and shall ensure reassignment of EM as appropriate to maximize utilization of available resources.
The Project Manager shall consider the list of factors as discussed in Table 5.2 when reassigning the EM units from the list of approved referrals.
Duration of EM
EM of youth is designed for a 3 month period. Depending on compliance, youth may be maintained on EM for longer periods for time if it is deemed in the best interests of public safety and offender accountability. All youth assigned to EM need to understand that through demonstrated compliance and behavioral change; restrictions are modified as a sign of trust, personal development and reward for pro-social success/ conduct. Any youth requiring extended time on EM must have his/ her case reviewed by the probation officer, area director and the Project Manager to ensure there is sufficient reason for extension. Due to limited resources, extensions will not be for more than three (3) additional months. Such extensions will be granted on a limited basis and only with the EM Project Manager's approval.
Activation Procedures:
Activation procedures require good coordination and communication between institutional and community staff. If it is possible, it is desirous that the Probation Officer and/ or the EM CCW be in attendance when the EM bracelet is being activated by institutional staff.
Procedures Provided to Youth:
Staff shall explain the charging procedure. The device is to be charged every 24 hours and is done for a 90 minute period. Do not plug and unplug unit as this will not complete the charging and result in a battery status or charge schedule alert. The youth should charge the unit while he is at home during curfew. Do not sleep with the unit being charged as this may cause damage to the charger pins and cause an alert. Show the youth how to align the charge cord and plug into the device and wall. Have the youth practice installing the charge cord to a satisfactory level of competence.
Cell Phone:
Staff shall explain the cell phone and charge procedure. Demonstrate the use of the cell phone- how to answer an incoming call and how to make an outgoing call. Demonstrate how to charge the cell phone. Have the youth practice charging, answering and making an outgoing call to ensure competence.

Program the cell phone to only call designated numbers of the youth's home, PO, EMCCW, and Institution.

Violation Procedures:

A violation is considered to have occurred when the EMC receives a message indicating an alert under any single or multiples of the categories as listed below. However, in order to limit false or unnecessary responses from Corrections or Police staff, the violation must be confirmed.

Another violation is when a youth refuses to have the ankle bracelet installed as per the conditions of an order. In such cases the youth will be held at the institution with a revocation, suspension or breach initiated by the sentence type.

Violation categories include (more detail in the literature review):

Exclusion Zone, Inclusion Zone, Buffer Zone, Battery Status, Recharge Schedule, Communication Failure, Location Failure, Strap Tamper, Device Tamper or Speeding Report.

Supervision and Priority Response Protocol:

It is expected that standard super vision protocols such as the number of in-person, telephone and community contacts will be used and will be followed.

Standard supervision protocols are those that are already applied as per the Auto Theft Unit (ATU) protocols, or Custody Support Unit and as highlighted in the ISSP Auto Theft Supplementary Edition (Nov. 2005).

While staff are expected to attempt to gain compliance of the youth, there is no exception to follow 'wait times' as in the ATU, ISSP or YBMP programs.

Response is to be immediate when no contact with the youth is achieved or outright refusal to comply occurs.

- ***If no compliance is gained, police are contacted to facilitate an arrest.***
- ***If there is an apparent attempt at compliance, then the EMCCW will monitor the youth's movement and return to compliance.***

Police Contact:

The EMCCW notifies police under the following conditions:

- Where assistance is required in confirming non-compliance and regular EMCCW staff or other CCW's or PO's are not available to attend or where personal safety is at issue;
- Where assistance is required in initiating revocations, suspensions or breaches by having police informed that the youth is in non-compliance and that a BOLO or other location response by police would be beneficial to public safety and youth's well being despite the need to wait on specific legal paper work from Corrections and that police have the ability to initiate the breach on their own (i.e. youth seen by WPS out of house inclusion zone past curfew.)
- Where perceived imminent risk to public safety, staff, youth or others exists.
- When criminal activity is noted.
- During a crisis situation

Electronic Monitoring Center (EMC)
The EMC shall provide the following: • Ensure the functional integrity of the electronic monitoring system; • Provide immediate response on a 24/7 basis to all alerts and violations; and • Respond to all hardware, software and equipment failures (excluding cell phones).
Deactivation Procedures:
Deactivation will occur for the following reasons: • Demonstrated compliance, risk management and good conduct during the three month period;
• Expiry of the EM policy timeline; • Expiry of sentence; • Remand custody period; • Sentenced custody period; • Institutional staff will advise the EM Project Manager, Probation Officer and EMCCW (as applicable) when a youth has been placed at the youth center; • If the youth is to have a review and/ or a bail hearing or court appearance within 48 hours the EM device may remain on the youth; • Institutional staff will ensure that either they or the PO or EMCCW make the changes to the offender status and requirements with the software so as to not generate false alerts (INACTIVE); • Once the youth has been to Court and a determination made that he/she is to remain in custody, the bracelet is to be removed and placed in the institutional stores; Deactivation procedures to be completed with the software (OMNILINK website); and Once the youth have been to court and a determination has been made that he/she is to be released, contact with the PO/ EMCCW and EM Project Manager to advise of re-enrollment and follow activation protocols and procedures as required.
Device Removal
All equipment returned must be logged into the Equipment Inventory List. Anytime a youth is removed from the EM project, a running record with the title "Electronic Monitoring Project Deactivation" placed in the remarks section of the report is to be completed. Reason for deactivation is to be noted in the body of the running record.

Appendix C- Ethics Protocol and Forms

This section includes:

- Ethics Renewal Approval
- Ethics Amendment Approval
- Consent Forms:
    - Youth/ Adult Offenders
    - Parent/ Guardian
    - Staff/ Stakeholders

UNIVERSITY OF MANITOBA | OFFICE OF RESEARCH SERVICES
Office of the Vice President (Research)

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Winnipeg, MB R3T 2N2
Fax (204) 269-7173
www.umanitoba.ca/research

RENEWAL APPROVAL

March 31, 2010

TO: **Ashley Pearson**
Principal Investigators

FROM: **Bruce Tefft, Chair**
Psychology/Sociology Research Ethics Board (PSREB)

Re: **Protocol #P2009:001**
"An Evaluation of Winnipeg's Electronic Monitoring pilot Project for Youth Auto Theft Offenders"

Please be advised that your above-referenced protocol has received approval for renewal by the **Psychology/Sociology Research Ethics Board**. This approval is valid for one year only.

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

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AMENDMENT APPROVAL

April 12, 2010

TO: **Ashley Pearson**
Principal Investigator

FROM: **Bruce Tefft, Chair**
Psychology/Sociology Research Ethics Board (PSREB)

Re: **Protocol #P2009:001**
"An Evaluation of Winnipeg's Electronic Monitoring Pilot Project for Youth Auto Theft Offenders"

This will acknowledge your request dated **April 7, 2010** requesting amendment to the above-noted protocol.

Approval is given for this amendment. Any further changes to the protocol must be reported to the Human Ethics Secretariat in advance of implementation.

UNIVERSITY OF MANITOBA | Department of Sociology

Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-9260
Fax (204) 261-1216

MYCS Staff/ Stakeholder Consent Form

Research Project Title:
An Evaluation of Winnipeg's Electronic Monitoring pilot project for Youth Auto Theft Offenders.

Primary Researcher:
Ashley Pearson
Department of Sociology
336 Isbister Building
University of Manitoba
umpears5@cc.umanitoba.ca

Research Supervisor:
Rick Linden, Ph. D.
Department of Sociology
339B Isbister Building
University of Manitoba
rlinden@ms.umanitoba.ca
(204) 474-8457

This research will be conducted for completion of the Master's Thesis and will be supervised by Dr. Rick Linden

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This consent form, the copy of which will be left with you for your records and reference, is only part of the research process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more information or detail about something that is mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand all accompanying information.

Invitation: You are invited to participate in an interview regarding Winnipeg's electronic monitoring pilot project for youth auto theft offenders. Funding for this research has been provided from Auto 21 Network of Centres of Excellence.

The purpose of this research is to evaluate the electronic monitoring pilot project. Specifically this research will focus on a number of issues including: compliance, positive and negative opinions of the device, recidivism rates, and service elements. This research will address youth in the electronic monitoring pilot project, staff at the MYCS and stakeholders with the project (police, crown attorneys and judges).

Your Participation: Participants in the study will be interviewed using a prepared interview guide that employs open-ended questions. Each participant will be interviewed in person by the researcher. The interviews should take approximately 30 minutes to one hour. The interviews will be tape recorded, while the researcher takes notes. If at any point a participant is uncomfortable with their answers being tape recorded, the researcher will take written notes only for the duration of the interview and stop the recording device.

Reminder: Your participation is voluntary and you are free to withdraw at any point during the interview. You have the right to withhold consent, or withdraw consent at any time without negative consequences (legal, employment or other).

Harm: Participants in this research will not be in any risk of harm that is greater than what one would experience in normal everyday life. Your participation is entirely voluntary.

Questions: The questions to be asked during the interview are as follows:

- What are your perceptions of EM
- Has EM helped/ hindered staff
- What is the impact of managing EM cases compared to non-EM cases
- What are the positive and negative views about EM expressed by (youth, families, collaterals, co-workers, WATSS partners etc?)
- Are there any legal issues involved in implementing EM
- And, your suggestions for the effective use of EM.

Interview Space, Date and Time: Interviews will be held in an empty office or boardroom at Probation Services at 533 Notre Dame Avenue. The time of the interviews is to be determined between your schedule and mine.

Confidentiality: Only the researcher and the researcher's supervisor will have access to the data collected for this study. Confidentialty will be maintained by keeping only an identification number on data collections forms that will be taken off-site and be kept under lock and key. Names will not be attached to staff interview forms and completed interviews will be stored in a locked file cabinet. Interview tapes will be destroyed after the interviews have been transcribed.

Distribution of the Findings: If you wish to review the notes from your interview I will forward a copy of them within a week. And you will be able to make changes at that time. Please leave your email address if you wish to review these notes. Also, please let me know if you would like me to send you a summary of this project when it is complete (approximately August 2010).

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and/ or refrain from answering any questions you prefer to omit, without prejudice or consequences. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Participant's Signature Date

☐ **Yes, I would like a copy of the interview**

☐ **Yes, I would like a summary of the report**

☐ **No, I do not want a copy of the interview or a summary of the report**

E-mail **(Only provide if you would like a copy of the interview & summary of the report)**

Address

City, Province, Postal Code

This research has been approved the Psychology/ Sociology Research Ethics Board at the University of Manitoba. If you have any concerns or complaints about this project, you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122 or e-mail margaret_bowman@umanitoba.ca.

UNIVERSITY OF MANITOBA | Department of Sociology

Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-9260
Fax (204) 261-1216

Parent/ Guardian Consent Form

Research Project Title:
An Evaluation of Winnipeg's Electronic Monitoring pilot project for Youth Auto Theft Offenders.

Primary Researcher:
Ashley Pearson
Department of Sociology
University of Manitoba
Umpears5@cc.umanitoba.ca

Research Supervisor:
Rick Linden, Ph. D.
Department of Sociology
339B Isbister Building
University of Manitoba
rlinden@ms.umanitoba.ca
(204) 474-8457

This research will be conducted for completion of a Master's Thesis and will be supervised by Dr. Rick Linden.

This assent form, a copy of which will be left for your reference is only part of the process of informed consent. This form should give you a basic idea of what the research is about and what the youth's participation will involve. If you would like more information about anything talked about here feel free to ask. Please take the time to read this carefully and to understand all information. Ask me questions at any time if you do not understand something.

Parental/ Guardian Consent: Myself and/or a Probation officer have contacted you because you are the parent/ guardian of a youth on an Auto Theft Electronic Monitoring Sentence. In order for the youth (if under 18 years of age) to participate in an interview it is required to seek legal parent/ guardian consent for the youth participation in the interview.

Along with this consent form, youth will also be required to provide separate **assent** to participate. Both parental/ guardian consent and youth assent need to be provided in order for you to participate.

The purpose of this consent form is to give you the information you need to help you decide whether or not you want your youth to be part of the study. You may ask questions about anything about the research or this form that is unclear. When all your questions have been answered, you can decide if you want to give consent for your youth to participate.

Purpose & Benefits: The purpose of this research is to look at the electronic monitoring pilot project. This research will look at a number of things including: youth compliance with court orders, opinions of the electronic monitoring device, reoffending rates, technology elements and more. This research will address youth in the electronic monitoring pilot project, and staff and stakeholders working with the pilot project.

Your Consent: If you agree to your youth participating in the interview, he/she will be interviewed for 30 minutes to one hour in which they will be asked 22 questions related to their experience and opinions of electronic monitoring. The interviews will be tape recorded, while the researcher takes notes. If at any point they are uncomfortable with their answers being recorded, the researcher will take written notes only for the duration of the interview and stop the recording device.

Reminder: The participation in the interview is voluntary and you are free to have the right to withhold consent or withdraw consent at any time without any negative consequences (legal or other) to the youth.

Harm: Participants in this research will not be in any risk of harm that is greater than what one would experience in normal everyday life. Youth's participation is entirely voluntary.

Questions:
The questions that will be asked are simple and based on your youth's opinion and experience on Electronic Monitoring. The following questions are not all of the questions that will be asked, but will give you an idea of what will be asked.

- What is your overall impression of Electronic Monitoring
- How long have you been on EM
- Has EM helped you in any way
- Did EM help you follow your court ordered sentence
- In your opinion what are the positive and negative aspects of EM
- Do you think EM is a good option for youth serving Auto Theft crime sentences
- Describe what it is like to wear an EM bracelet
- Did EM change your daily activities and how
- How has EM affected your family and friends

Interview Space, Date and Time: If the youth want to stop the recording they can at any point during the interview. Depending on the youth's status (community/ custody) will decide where the interview will take place.

a) If the youth is in the community- the interview will take place at Probation Services (@ 533 Notre Dame Ave. The interview will be in an open office- and the door will be kept open at all times.
b) If the youth are in custody- the interview will take place in the institution they are located (Manitoba Youth Center, Agassi Youth Center, for youth over the age of 18- Headingly Correctional Center, Stony Mountain or the Remand Center) and there will be a Corrections office in the room at all times for safety reasons.

Confidentiality: Only the researcher and the researcher's supervisor will have access to the data collected from this interview. Confidentiality will be maintained by keeping only an identification number on data collections forms that will be kept under lock and key. Names will not be attached to youth interview forms and completed interviews will be stored in a locked file cabinet. Interview tapes will be destroyed after the interviews have been transcribed.

Distribution of the Findings: If you wish to review the notes from your youth's interview I will forward a copy of them to you within a week of the interview. Please leave your email address or address, or another method of contacting you if you wish to see the interview or the summary of the report.

Your signature on this form indicates that you have understood the information regarding your youth's voluntary participation in the research project and that you agree to provide consent on your youth's behalf. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw your consent for your youth's participation at any time during the study without consequences (legal or other).

☐ Yes, Parental/ Guardian Consent has been provided for the youth to participate.

☐ No, Parental/ Guardian Consent has been denied and the youth will not be able to participate.

_____ _____

Parent/ Guardian Signature Date

☐ **Yes, I would like a copy of the interview**

☐ **Yes, I would like a summary of the report**

☐ **No, I do not want a copy of the interview or a summary of the report**

E-mail **(Only provide if you would like a copy of the interview & summary of the report)**

Address

City, Province, Postal Code

This research has been approved the Psychology/ Sociology Research Ethics Board at the University of Manitoba. If you have any concerns or complaints about this project, you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122 or e-mail margaret_bowman@umanitoba.ca.

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Youth Assent/ Adult Consent Form

Research Project Title:
An Evaluation of Winnipeg's Electronic Monitoring pilot project for Youth Auto Theft Offenders.

Primary Researcher:
Ashley Pearson
Department of Sociology
University of Manitoba
Umpears5@cc.umanitoba.ca

Research Supervisor:
Rick Linden, Ph. D.
Department of Sociology
339B Isbister Building
University of Manitoba
rlinden@ms.umanitoba.ca
(204) 474-8457

This research will be conducted for completion of a Master's Thesis and will be supervised by Dr. Rick Linden.

This form, a copy of which will be left for your reference is only part of the process of informed assent/consent. This form should give you a basic idea of what the research is about and what your participation will involve. If you would like more information about anything talked about feel free to ask. Please take the time to read this carefully and to understand all information. Ask me questions at any time if you do not understand something.

Invitation: You are invited to be part of a research study called "An Evaluation of Winnipeg's Electronic Monitoring pilot project for Youth Auto Theft Offenders." You have been invited to participate because of your Electronic Monitoring sentence to see if you would be willing to participate in an interview.

The purpose of this assent/consent form is to give you the information you need to help you decide whether or not to be part of the study. You may ask questions about anything about the research or this form that is unclear. When all your questions have been answered, you can decide if you want to be part of the study or not.

Parent/ Guardian Consent:

- If you are under the age of 18, your probation officer or myself, will be contacting your parents/ guardians to seek legal consent for your participation in the interview. Along with the parental/ guardian consent, you will also need to provide separate assent to participate in the interview.

Both parental/ guardian consent and youth assent need to be provided in order for you to participate if you are under the age of 18.

- If you are over the age of 18, then you can legally provide consent for yourself for the interview.

☐ Please check this box, if you are over the age of 18 and parental/ guardian consent is not needed.

Purpose & Benefits: The purpose of this research is to look at the electronic monitoring pilot project. This research will look at a number of things including: youth compliance with court orders, opinions of the electronic monitoring device, reoffending rates, technology elements and more. This research will address youth in the electronic monitoring pilot project, and staff and stakeholders working with the pilot project.

Your Participation: If you agree to participate, you will be asked to participate in a 30 minute to one hour interview in which you will be asked 22 questions related to your experience and opinions of electronic monitoring. The interviews will be tape recorded, while the researcher takes notes. If at any point you are uncomfortable with your answers being recorded, the researcher will take written notes only for the duration of the interview and stop the recording device.

Reminder: Your participation is voluntary and you are free to withdraw at any point during the interview. You have the right to withhold assent/consent, or withdraw assent/consent at any time without any negative consequences (legal or other).

Harm: Participants in this research will not be in any risk of harm that is greater than what one would experience in normal everyday life. Your participation is entirely voluntary.

Questions: The questions that will be asked are simple and based on your opinion and experience on Electronic Monitoring. The following questions are not all of the questions that will be asked, but will give you an idea of what will be asked of you.

- What is your overall impression of Electronic Monitoring
- How long have you been on EM
- Has EM helped you in any way
- Did EM help you follow your court ordered sentence
- In your opinion what are the positive and negative aspects of EM
- Do you think EM is a good option for youth serving Auto Theft crime sentences
- Describe what it is like to wear an EM bracelet
- Did EM change your daily activities and how
- How has EM affected your family and friends

Interview Space, Date and Time: The interviews will be anywhere from 30 minutes to one hour long and will be tape recorded. However, if you want to stop the recording at any point during the interview you can. Depending on your status (Community/ Custody) will decide where the interview will take place.

a) if you are in the community- the interviews will take place at Probation Services @ 533 Notre Dame Avenue. The interview will be in an open office- and the door will be kept open at all times.
b) If you are in custody- the interview will take place at the institution you are located.
    - For Youth: Manitoba Youth Center, Agassi Youth Center, Milner Ridge
    - For Adults: Headingly Correctional Center, Remand Center, Stony Mountain

The researcher and youth will decide on a time and date for the interview together.

Incentive: Once you have reviewed the assent/ consent form and have agreed to participate in the interview you will be provided with a $15 Famous Players movie certificate. You will receive the movie pass whether or not you complete the interview.

Confidentiality: Only the researcher and the researcher's supervisor will have access to the data collected from this interview. Confidentiality will be maintained by keeping only an identification number on data collections forms that will be kept under lock and key. Names will not be attached to youth interview forms and completed interviews will be stored in a locked file cabinet. Interview tapes will be destroyed after the interviews have been transcribed.

Distribution of the Findings: If you wish to review the notes from your interview I will forward a copy of them within a week. And you will be able to make changes at that time. Please leave your email address if you wish to review these notes. Also, please let me know if you would like me to send you a summary of this project when it is complete (approximately August 2010).

Distribution of the Findings: If you wish to review the notes from your interview I will forward a copy of them within a week. And you will be able to make changes at that time. Please leave your email address if you wish to review these notes. Also, please let me know if you would like me to send you a summary of this project when it is complete (approximately August 2010).

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and/ or refrain from answering any questions you prefer to omit, without prejudice or consequences. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Participant's Signature Date

☐ **Yes, I would like a copy of the interview**

☐ **Yes, I would like a summary of the report**

☐ **No, I do not want a copy of the interview or a summary of the report**

E-mail **(Only provide if you would like a copy of the interview & summary of the report)**

Address

City, Province, Postal Code

This research has been approved the Psychology/ Sociology Research Ethics Board at the University of Manitoba. If you have any concerns or complaints about this project, you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122 or e-mail margaret_bowman@umanitoba.ca.