Safe City Mississauga's Neighbourhood Watch 2015 Evaluation

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Highlights

Overall, Mississauga's Neighbourhood Watch program is a very effective crime prevention program; **leading to upwards of a 61% reduction in residential police-reported property crimes.**

The use of Crime Prevention Through Environmental Design (CPTED) to provide customized recommendations appears to have increased the effectiveness of the program. **Watches with CPTED audits prevented 1.5 times more reported property crimes than Watches without CPTED audits.** Safe City Mississauga should continue to use and promote the use of this crime prevention practice.

In addition to preventing property crimes, **this evaluation found evidence that the program provides:**

- **Increases in knowledge of physical security improvements, along with increases in making those improvements.**
  - 35% of surveyed Watch members said they made security improvements because of their Watch.
  - For example: *"Installing motion sensor lights around the front and side of our house."*
- **Increases in knowledge of what to look out for and what to report, along with increases in members being observant.**
  - For example: *"I pay more attention to cars/ vans I don't recognize that stop on my street. When I'm outside, which is a lot, I look at people walking by and usually say hello. I pay extra attention if I don't recognize them as a neighbour or regular exercise walker."*
- **Slight increases in reporting (potential) incidences.**
  - 8% of surveyed Watch members said they reported incidents that they would not have if they did not join their Watch.
- **Increases in how well members know their neighbours.**
  - 32% of the surveyed Watch members reported experiencing increases in their connections to their neighbours.
  - Working together with their neighbours and looking out for each other is what Watch Members most often said they like the most about the program. For example: *"We feel that all the Neighbourhood are concern and became one community sharing the idea of keeping the place safe and secure, and the spirit of team working and watching."*
- **Increases in feelings of safety.**
  - 34% of the surveyed Watch members feel safer since the start of their Watch, while only 6% feel less safe.

The members are quite satisfied with Safe City Mississauga's support, but there is an opportunity to further the program's effectiveness by encouraging more members to attend Watch meetings and by sending more frequent communications with crime incident information and with crime prevention tips and resources.

Safe City Mississauga's Neighbourhood Watch Program

Safe City Mississauga (SCM) has operated Mississauga's Neighbourhood Watch program since 1992. Prior to 2011, Mississauga's Neighbourhood Watch program consisted of:

- Signing up communities to be part of a Watch mailing list.
- Sharing crime prevention tips and information on crime occurring in the neighbourhood with members through the mailing list and through in-person meetings.
- Encouraging members to get to know their neighbours and look out for each others' property.
- Providing information on what to look out for and what to report to the police, and
- Providing Neighbourhood Watch decals and signs.

In 2011, SCM integrated the use of Crime Prevention Through Environmental Design (CPTED) as part of the program. By conducting CPTED audits, the Program Coordinator is able to provide crime prevention recommendations that are specific to each Watch's environment. Recommendations can include things like improving lighting, trimming trees and bushes, storing property in hard to access areas, cleaning up the neighbourhood, etc. As far as SCM knows, there are no other Neighborhood Watch programs that have incorporated CPTED into their delivery.

Theory of Change

The Neighbourhood Watch program's primary goal is to prevent and reduce property crime.. It does so in two main ways:

- Increasing criminals' perceptions of how likely they will be caught committing a property crime.
- Increasing how physically difficult it is to be able to commit a property crime.

To increase perceptions of the likelihood of being caught, the program:

- Teaches residents how to change their physical environment to increase criminals' perceptions that they may be observed by a capable guardian. Such changes include, cleaning up the neighbourhood to give a sense that residents care about their neighbourhood and will report incidents of property crime, or installing lights on the outside of a home to make suspicious activity more observable. The program also intends to increase their motivation to make changes to the neighbourhoods' physical environment by:
  - Increasing residents' cohesion with each other and their pride in the community.
- Encourages residents to provide police with information to improve the police's response and monitoring of crime. If criminals see more police in the area or hear of other criminals being caught in the area, they will view the area as being more risky. To help residents provide police with information about suspicious activities and crimes that take place in their neighbourhood, the program:
  - Gives residents the opportunity to voice their concerns to the police during the Set-up Meeting.
  - Educates residents on who are likely suspicious individuals, what to be on the lookout for, and how to report it to the police.
  - Increases community cohesion so that residents are more motivated to help out their neighbours and lookout for their property.

- o Increases community networking so that residents can tell the difference between residents and suspicious individuals that do not belong in the community.
- – Provides Neighbourhood Watch Signage, which should result in criminals believing that the neighbourhood will be more physically secure and under more observation than non-Watch neighbourhoods.

To increase how physically difficult it is to be able to commit a property crime, the program:

- – Teaches residents how to change their physical environment to increase how difficult it is to be able to commit a property crime. Such changes include, installing dead bolts and reinforced doors, or installing proper locks on windows. The program can increase motivation to make such security improvements by:
    - o Informing residents of the suspicious activities and crimes occurring in their neighbourhood, which increases the perceived risk of being a victim of similar crimes.

While not the main goal of the Neighbourhood Watch program, a Watch can also result in the following:

- – Decreases in non-property crime, such as drug-dealing, robberies, etc.
- – Increases in feelings of safety.

As with property crime, a Watch can decrease non-property crime by changing the physical environment to increase criminals' perceptions of the chance that they will be caught. The information provided by the Police during the Set-up Meeting can also change people's behaviour so that they are less likely to be victims of crimes such as fraud.

A Watch can also increase residents' feelings of safety by:

- • Increasing perceptions that their neighbours are looking out for them (either by getting to know their neighbours or by knowing that a Watch is operating on their street).
- • Increasing their perceptions that the police are monitoring their neighbourhood.
- • Increasing their perceptions that there are less crimes occurring in their neighbourhood.
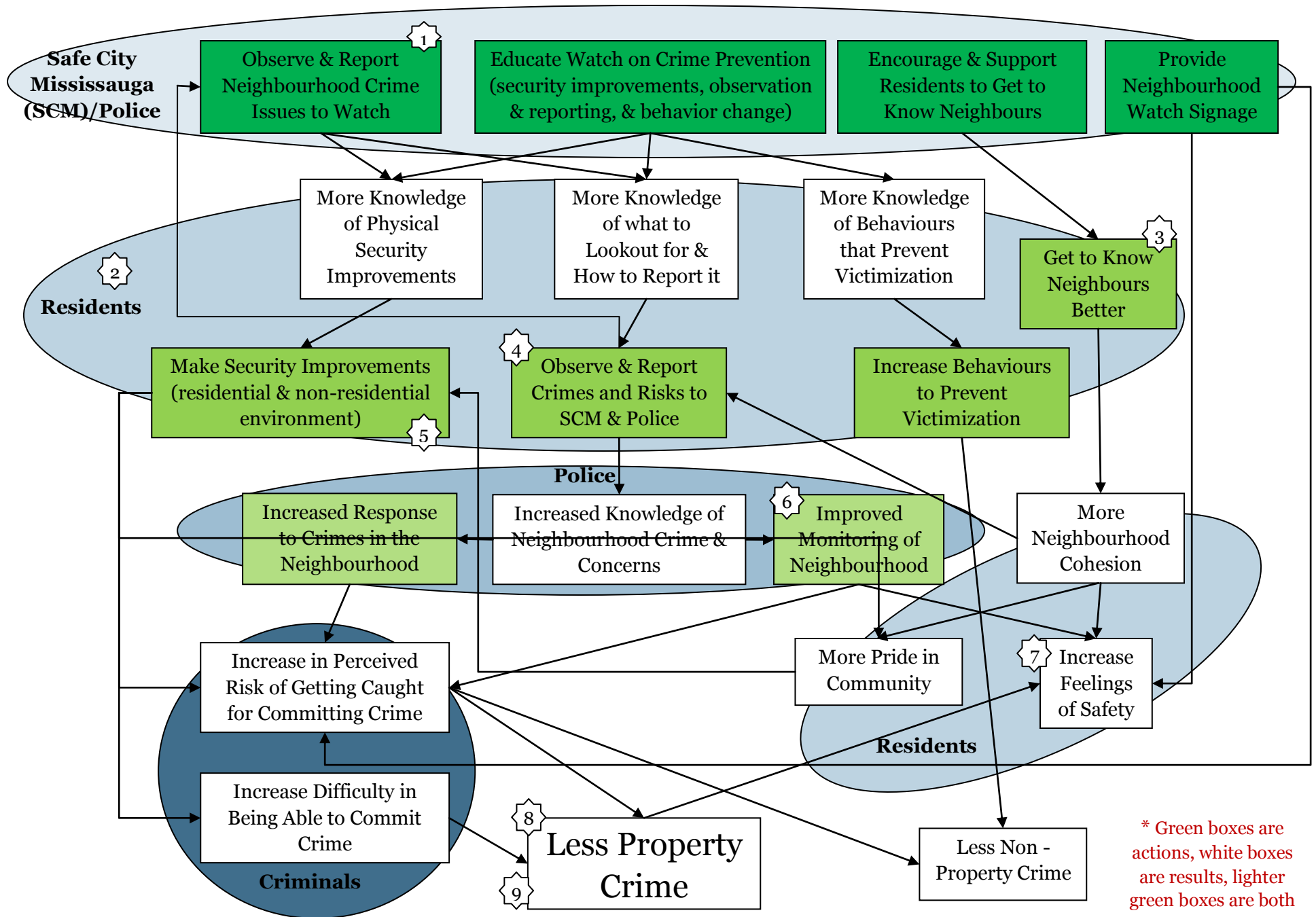
Assumptions, Conditions, and Risks

The following are some of the assumptions, conditions, and risks that could impact the effectiveness of a Watch. The numbers relate to the numbered stars on the Theory of Change model on page 6.

1. Reporting safety issues, suspicious activity, and crimes to the Watch members could decrease their feelings of safety.
2. A Watch with a greater percentage of residents that are Watch members is likely to be more effective than Watches with lower membership percentages. Residents need to be motivated to take actions to address crime in their neighbourhood. Motivation can be affected by community cohesion and by perceptions that there is a good chance of crime occurring and actions to deter that crime are likely to be effective.
3. The types of dwellings and the type of street that make up the neighbourhood (i.e. suburban cul-de-sac vs. high-rise building) require different levels of effort to create neighbourhood cohesion. Some neighbourhoods may encourage socializing with neighbours as part of people's everyday activities, while other neighbourhoods may require planned social events.

4. Whether Watch members increase how often they report crimes likely relates to how much they trust the Police and believe that police will take effective action.
5. More affluent neighbourhoods may be able to make more security improvements to their property and neighbourhood than neighbourhoods with limited resources.
6. It is assumed that the police have the resources to increase monitoring of Watch neighbourhoods when requested or when increases in crimes are reported.
7. If a Watch is successful at addressing the problem and/or increases residents' feelings of safety, residents may decrease their efforts to observe crime in their neighbourhood.
8. While a Watch may discourage crime from occurring in a particular neighborhood, if crime prevention efforts are not occurring in other areas, a criminal may simply commit crimes elsewhere.
9. Watches' effect on crime will be limited in neighbourhoods where few crimes tend to happen.

Figure 1: Mississauga's Neighbourhood Watch - Theory of Change Model

Safe City Mississauga (SCM)/Police

1. Observe & Report Neighbourhood Crime Issues to Watch

Educate Watch on Crime Prevention (security improvements, observation & reporting, & behavior change)

Encourage & Support Residents to Get to Know Neighbours

Provide Neighbourhood Watch Signage

More Knowledge of Physical Security Improvements

More Knowledge of what to Lookout for & How to Report it

More Knowledge of Behaviours that Prevent Victimization

3. Get to Know Neighbours Better

Residents

2.

Make Security Improvements (residential & non-residential environment)

4. Observe & Report Crimes and Risks to SCM & Police

Increase Behaviours to Prevent Victimization

5.

Police

Increased Response to Crimes in the Neighbourhood

Increased Knowledge of Neighbourhood Crime & Concerns

6. Improved Monitoring of Neighbourhood

More Neighbourhood Cohesion

Increase in Perceived Risk of Getting Caught for Committing Crime

More Pride in Community

7. Increase Feelings of Safety

Residents

Increase Difficulty in Being Able to Commit Crime

8. 9. Less Property Crime

Less Non - Property Crime

Criminals

* Green boxes are actions, white boxes are results, lighter green boxes are both

Evaluation Purpose

To understand how Watches in Mississauga are working to reduce crime in order to learn how to increase their effectiveness.

Evaluation Questions

Process Questions:

1. How satisfied are Watch Coordinators with the support and guidance provided to them by SCM during the Watch set-up phase? How can it be improved?
2. How satisfied are Watch members with the support and information that they receive through a) the Set-up Meeting, and b) SCM's ongoing communications? How can the information or the way it is delivered be improved?
3. To what degree do Watch members use the documents and resources given to them at the Set-up meeting?

Intermediate Outcome Questions:

4. To what degree do Watches implement the recommendations from the CPTED audits? What are the enablers and barriers to implementing the CPTED recommendations?
5. To what degree do Watches influence members to make security improvements to their own property? What are the effective ways that Watches encourage members to make security improvements to their property?
6. To what degree do Watches increase the likelihood that members will report crimes to the police? What enablers and barriers to reporting crime can Watches address?
7. Do Watch members' motivation to take action to deter crime tend to decrease in the long-term (after more than a year)? If so, which Watches' motivation have decreased?
8. What are some of the other ways Watch members change their behaviour to deter crime?
9. To what degree do Watches influence members to get to know their neighbours better?   What factors affect Watches ability to get members to get to know their neighbours better?
10. To what degree do Watches affect members' feelings of safety?

Long-term Outcome Questions:

11. After streets sets-up a Watch, to what extent do they experience less property crime than similar nearby streets?
12. How does the Watches' impact on property crime change over time?
13. To what extent do Watches that receive a CPTED audit prevent more or less property crime than Watches that do not receive the audit?

Data Collection Methods

We used a variety of methods in order to assess the program's performance from the perspective of:

- Watch canvassers
- Watch members
- Program Coordinator
- Police records

Below, we outline each of the data collections methods that help to answer the evaluation questions.

Data Collection Methods at a Glance

Data Collection Method	Population	Sample	Coverage
Watch Canvasser Feedback Survey	Watch Canvassers for Watches set up from Jan. to Oct. 2015 (N=19)	12 survey responses	63%
Post-Set-Up Survey	All attendees of Watch Set-up Meetings occurring from Jan. to mid-Sept. 2015	The vast majority completed the survey	The vast majority completed the survey
Long-term Member Survey	Members of Watches that were set-up from Jan. 2014 to June 2015 (N=540 with emails & 50 without)	100 – 86 respondents to survey questions	%17 - 15%
Neighbours Night Out/ Community BBQ Attendance	All Watches	All Watches	100%
Follow-up CPTED Audit	Streets where Watches were set-up in 2014 (N=35)	11 Watch streets	31%
Interviews with Key Watch members	Key Members of the Watches that had follow-up CPTED audits	12 Watch Members	We tried to interview the members most likely to know about the various activities of the Watch as a whole.
Property Crime Police Data	Watches set-up from 2009 to 2013 (N=128)	106 Watches (Watch areas that cover more than 80% of the street)	83%

Table 1

Overall, the evaluation is based on a strong mix of quantitative and qualitative information. The main limitation is that the Long-term Member Survey likely captures few of the less engaged members and no members that did not provide SCM with an email address. However, the general findings from the Long-term Member Survey are consistent with the findings from the other data sources.

The findings from the property crime data provided by Peel Regional Police are particularly convincing. For the change in report property crimes to be due to anything other than the Watches, the other thing would have to of systematically taken place in the Watch streets and not in the comparison streets around when each Watch was set-up throughout the three year period – which is a very unlikely scenario.

Copies of the data collection tools are available upon request. More details on the data collection methods can be found in Appendix 1.

Results

Impact on Property Crime

We Estimate that Watches Set-up from 2010 to 2012 Prevented 62 Reported Property Crimes Within their First Year (a 61% Reduction Compared to 1 Year Prior).

To understand how the Watches set-up from January 2010 to December 2012 prevented property crimes over-time, we examined how many residential property crimes Watch and Comparison streets reported each month for a period of two years before the start of the Watches' expected impact (2 months after Set-up) and two years afterwards. The graph below presents the results of the analysis. [3]
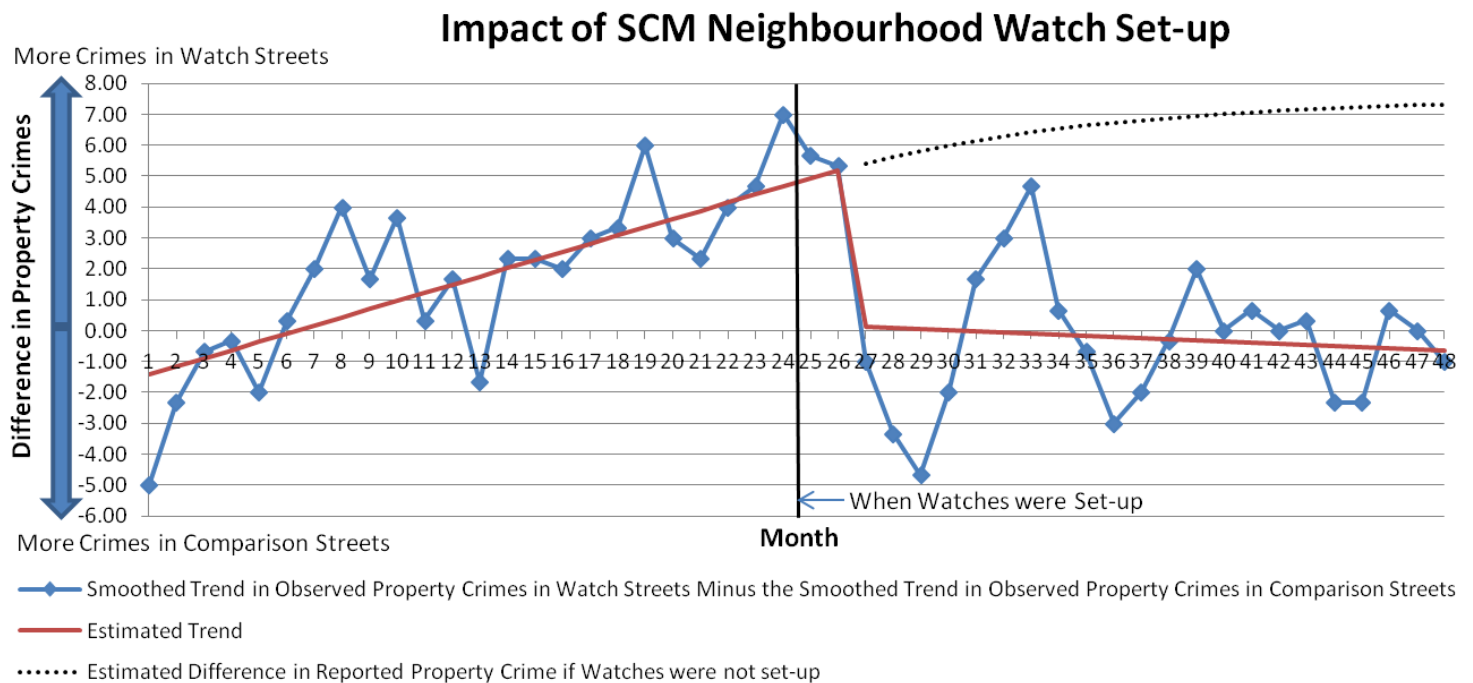

Figure 2

Prior to the Watches being set-up, the difference between reported property crimes in the Watch and Comparison streets was growing by a rate of 0.265 crimes per month. By 2 months after the Watches were set-up, the difference in reported property crimes decreased by about 5 crimes, such that the Watches streets and the Comparison streets tended to report about the same amount of reported property crimes after the Watches were set-up.

This analysis suggests that the Watches were completely effective at eliminating whatever was causing them to have more crime than nearby similar streets. By carrying the pre-Watch trend forward,[2] we can estimate how many property crimes the Watch streets would have likely reported if the Watches were not set-up. By comparing that estimate to the observed trend, we estimate that the Watches:

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[3] Multiple AutoRegressive Integrated Moving Average (ARIMA) models were estimated using SPSS in order to test the nature of the Watches' impact. The best fitting model with all parameters being significant at the 0.05 level was selected as the model that best describes the changing trend. The final model has an R-squared of 0.7, meaning that the model accounts for 70% of the variation in the data. To visually demonstrate the Watches' impact, the trend is depicted in Figure 2 without the autoregressive components.

[2] It is highly unlikely that the pre-Watch trend would continue to increase indefinitely. We assume that the increasing trend would start to level off at some point even without the Watches being set-up.

- prevented about 62 reported property crimes within one year after set-up
- prevented about 90 reported property crimes during the second year after set-up

To provide a better sense of the size of that impact, the Watch street group reported 102 property crimes in the year prior to the Watches being set-up, and the time-series model estimates that the Watches prevented 62 (61%) reported property crimes within the first year after the Watches were set-up, which is a much larger than average impact for Neighbourhood Watches.[3]

We believe the changes observed could be impacted only slightly by Watches displacing crime to the comparison streets. While the initial reduction in crime in the Watch streets is met with an increase in the comparison streets, the trend does not persist. If displacement is occurring at all, crime is likely being displaced to many areas outside of the Watches. It is very unlikely that the Watches cause all the crimes to be displaced to the one nearby street that we selected as a comparison street.
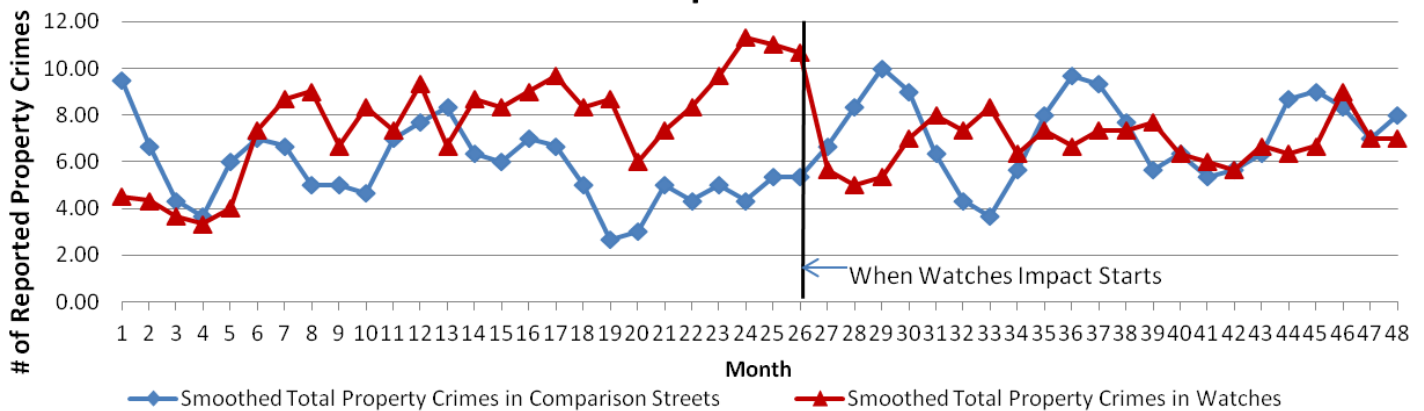

Figure 3

The results of the pre-post analysis are similar to the results of the time-series analysis. **Error! Reference source not found.** compares the number of reported property crimes in Watch and Comparison streets 1 year before and 1 year after the Watches' impact begins. From before to after the Watches' impact, property crime in the Watch streets decreased (by 32%), while property crime in the Comparison streets increased (by 40%).

The unequal amount of crime occurring in the Watch and Comparison streets before the Watches were set-up makes it more difficult to estimate of the amount of change that is due to the Watches. Streets with 0 or 1 crime occurring in the before period have no or little room to experience a decrease in crime. So, regardless of whether Watches are set-up, streets with more crimes occurring during the before period are more likely to experience larger decreases in property crime. Given that the there were more property crimes in the Watches, we would expect that the Watch streets would naturally experience a somewhat greater reduction in property crimes.

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[3] On average, Neighbourhood Watches have been shown to reduce crime by between 16 and 26 percent (Bennett T, Holloway K, Farrington D. The effectiveness of neighborhood watch. Campbell Systematic Reviews 2008:18).

Property Crime in Watch Streets Decreased After Watch Set-up, While Property Crime in Comparison Streets Slightly Increased.

# of Reported Property Crimes

176 — 12 Months Prior to Start of Watch Impact (Watch)
120 — 12 Months Prior to Start of Watch Impact (Comparison)
95 — 12 Months After Start of Watch Impact (Watch)
133 — 12 Months After Start of Watch Impact (Comparison)
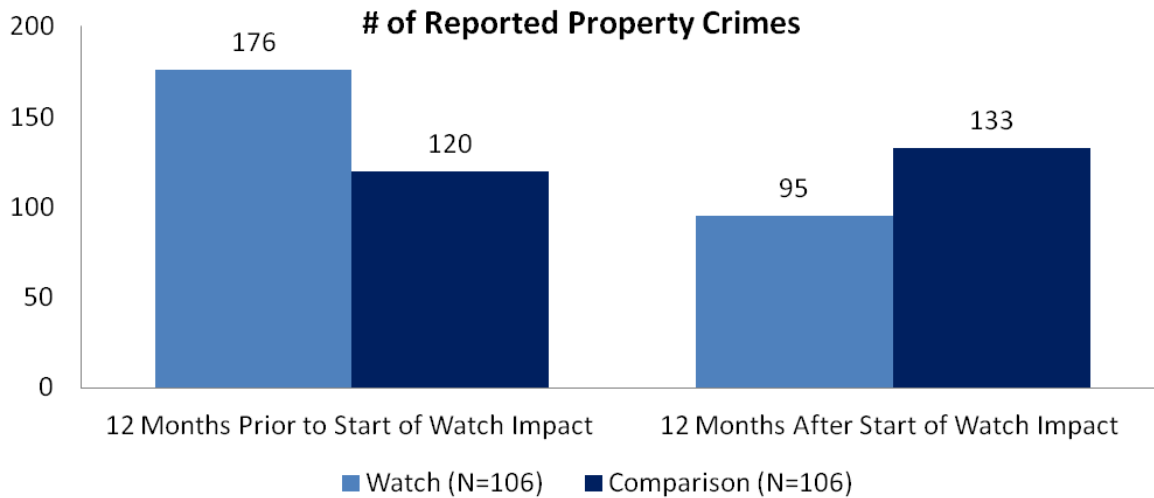
■ Watch (N=106) ■ Comparison (N=106)

Figure 4

To remove the effect of the different amounts of crime occurring in the before period, we conducted a linear regression analysis. The analysis is able to determine the impact of the Watches, while holding the number of reported property crimes that occurred in the before period constant. In other words, the model estimates what the impact of the Watches would be if they were compared to streets with the same pre-level of crime. The model found that the impact of setting up a Watch without CPTED (i.e. the 2009 and 2010 Watches) increased with the number of crimes that occurred in the before period. Specifically, on average, Watch streets without CPTED experienced 0.34[4] less crimes them comparison streets for every additional crime that occurred on the streets 1 year prior.

The Impact of NW Watch & CPTED Is Greater in Streets with More Pre-existing Crime
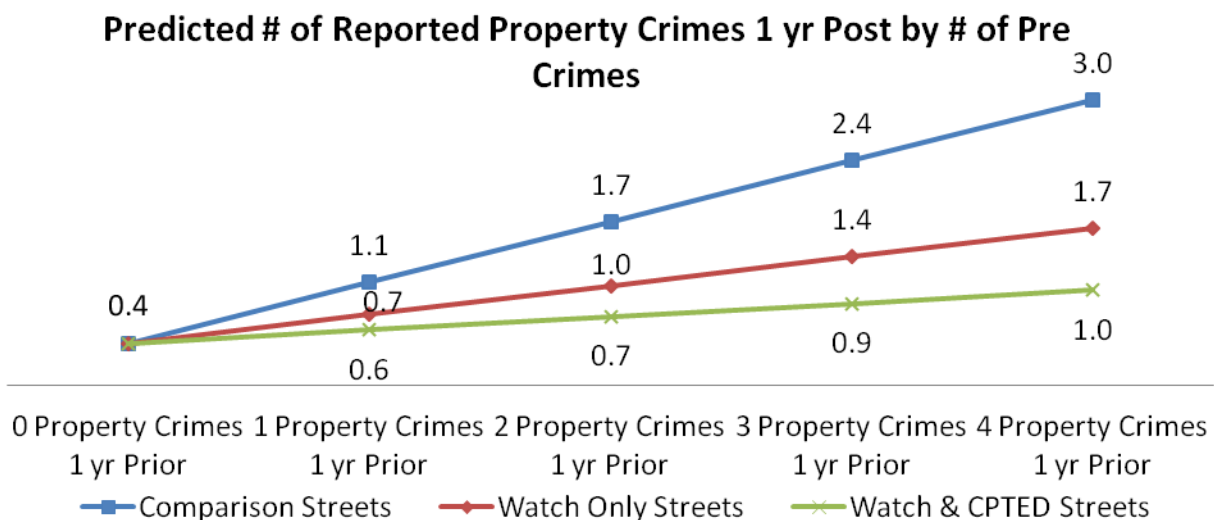
Predicted # of Reported Property Crimes 1 yr Post by # of Pre Crimes

Comparison Streets: 0.4, 1.1, 1.7, 2.4, 3.0
Watch Only Streets: 0.7, 1.0, 1.4, 1.7
Watch & CPTED Streets: 0.6, 0.7, 0.9, 1.0

0 Property Crimes 1 yr Prior   1 Property Crimes 1 yr Prior   2 Property Crimes 1 yr Prior   3 Property Crimes 1 yr Prior   4 Property Crimes 1 yr Prior

—■— Comparison Streets   —♦— Watch Only Streets   —✕— Watch & CPTED Streets

Figure 5

[4] Statistically significant at the 0.05 level.

*Note: Figure 4 only presents the relationship for streets that have up to 4 property crimes during the Pre-Watch period; however, there were Watches that experienced more property crimes during that period.

In the table below, we present the pre-post analysis estimates of the number of crimes prevented each year by SCM's Neighbourhood Watch program. Overall, the analysis estimates that the Watches prevented about 80 property crimes by 1 year after the start of each Watch's impact.

Reported Property Crimes Prevented by Watches by Set-up Year

Group	Total # of Reported Property Crimes		Estimated** Impact of Watch Set-up (after 1 year)
	1 Year Prior to Start of Watch Impact	1 Year After Start of Watch Impact	
2013 Watches (N=42)	43	10	22 less crimes; 0.5 less/Watch
2012 Watches (N=20)	46	24	23 less crimes; 1.15 less/Watch
2011 Watches (N=19)	31	22	16 less crimes; 0.8 less/Watch
2010 Watches (N=20)	34	34	12 less crimes; 0.6 less/Watch
2009 Watches* (N=5)	22	5	7 less crimes; 1.4 less/Watch
2009 to 2013 Watches (N=106)	176	95	80 less crimes; 0.8 less/Watch

*2009's results are highly influenced by a single Watch-Comparison street pairing that represents most the crime instances in that year.
** Using linear regression to control for different amounts of crime occurring in the before period.
Table 2

Impact on Increasing Security

35% of Surveyed Watch Members said they Made Security Improvements Because of their Watch.

Mississauga's Neighbourhood Watch program can encourage members to make security improvements in a number of ways:

- By providing general security information through materials such as Peel Police Fact Sheets.
- By providing Neighbourhood Watch decals and signs.
- By helping neighbours connect and share crime prevention tips.
- By conducting CPTED audits and providing security improvement recommendations that are specific to the neighbourhoods.

This section explores the degree to which members made security improvements and how their Watches influenced them to make those change.

On the Long-term Members Survey, 30 (35%) of the respondents said they made some security improvements because of their Watch. Of those members:

- 90% said they made security improvements to their home.
- 23% said they made security improvements to their property other than their home.
- 17% said they made security improvements to their neighbourhood's shared space.

Some of the more frequent types of security improvements that the members said their Watches influenced them to make are (starting with the most frequent):

- Increasing lighting: *"Installing motion sensor lights around the front and side of our house."*
- Reinforcing entry points to property: *"Reinforcing the sliding doors at the back of the house. Putting a lock on my gate."*
- Installing video surveillance: *"Added external cameras around whole house."*
- Posting stickers or signs or doing other things to communicate that the property is being watched: *"Watch stickers. Be visible on my street i.e. riding my bike, going for a walk. playing with kids in front yard."*
- Using locks more often: *"Locking car doors more often, locking windows more often."*
- Installing alarm systems: *"Upgrade of alarm system."*

Ways Watches Help Members Increase Security

On the Long-Term Members Survey, we asked the Watch members (30) to describe how their Watches encouraged them to make security improvements. Many members said their Watches helped by:

- Increasing their awareness of the crime occurring in their neighbourhood: *"The regular reports make me more aware about the crimes happening in the area."*
- Providing crime prevention information: *"Aware of what security steps to take to prevent crimes..."*
- Providing information at Watch meetings: *"We went to a presentation arranged by our Neighbourhood lead and police Dept gave report on what the burglars are doing in our neighbourhood."*

Related to obtaining crime prevention information, a couple of Watch members said their Watch encouraged them to make security improvements because it helped them understand how criminals operate.

Also, several Watch members' survey and interview responses indicated that more communication with their neighbours is what led to their increased awareness of crime incidents and what they can do to prevent them. For example: *"neighbours are talking to each other due to the awareness raised by the program to ensure safety."*

Barriers to Increasing Security

The data collected did suggest some barriers that can prevent members from implementing the CPTED recommendations. Specifically:

- 28% of the Long-term Member Survey respondents said they had no or only a slightly clear understanding of how making changes to their environment can deter crime. Given that the survey respondents are likely the more engaged members, the level of understanding is likely lower for the average Watch member.
- When prompted about whether financial help would encourage their neighbours to implement the CPTED recommendations, some of the interviewees agreed that it would.
- A few of the interviewed Watch members suggested that property management can be a barrier if their policies prevent making changes to common areas or if property management does not want to invest in making the recommended security improvements.

Impact of CPTED

Watches with CPTED Prevented 1.5 Times More Reported Property Crimes than Watches without CPTED

Using CPTED to provide neighbourhood specific crime prevention recommendations appears to have increased the Watches' ability to prevent property crimes. The regression model of the pre-post data found that Watches that had a CPTED audit (i.e. 2011, 2012, and 2013 Watches) reduced crime more than Watches without a CPTED audit. Specifically, on average, Watch streets that received a CPTED audit experienced 0.5[5] less property crimes for every additional crime that occurred on the streets 1 year prior. That impact is 1.5 times greater than the impact of the Watches without CPTED audits.

The CPTED recommendations are just one way that the Neighbourhood Watch program can influence members to make security improvements. To get a deeper understanding of the degree to which neighbourhoods implement the CPTED recommendations they receive, the NW Program Coordinator conducted 5 follow-up audits. All 5 CPTED follow-up audits found at least slight improvements in the neighbourhoods' environmental design. While the sample size is small, finding some changes in each neighbourhood is a promising sign that Watches typically implement at least some of the recommendations. The detailed results of the follow-up audits can be found in Appendix 2.

It seems likely that many of the changes observed in the follow-up audits were a result of the Watch and the CTPED recommendations provide:

- While many of the interviewed Watch members from those communities were not aware if the changes occurred or if they were a result of their Watch, a few of them did believe the changes had something to do with their Watch.
- On average, respondents to the Watch Set-up meeting surveys said that they are likely[6] to implement the CPTED recommendations.
- CPTED recommendations are provided during Watch Set-up meetings, and on the Long-term Member Survey, several members said that it was the Watch meetings that encouraged them to make the security improvements that they did make. Also, the changes made by a few respondents match the recommendations in the original CPTED audits, such as trimming trees or shrubs and hiding property from easy view.
- Perhaps the most convincing argument to suggest that the changes are due to CPTED is the finding that the Watches with CPTED audits tended to prevent more crimes.

Impact on Reporting Crime

Most Watch Members do Not Actually Observe Any Crimes or Suspicious Activities, Even Though Many Members Appear to be More Observant

On the Long-term Members Survey, 16% (14) of the respondents said that they reported suspicious activity or a crime to the police in the last year. Of those members, half (7) said that they would have reported less incidences if they were not part of their Watch. Some Members' open-ended survey and interview responses also indicated that the Watches increased how often they reported suspicious incidents to their neighbours.

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[5] Statistically significant at the 0.01 level.
[6] Average of 5.8 on a scale ranging from Very Unlikely = 1 to Very Likely = 7.

Perhaps more members would have said they reported an incident if the survey question was not specifically about reporting to the Police.

While few members said their Watch influenced them to report more incidents, it seems that they were on the lookout for potential incidences and willing to report them. Of those that did not report anything to the police, the vast majority 54 (83%) said that it was because they did not observe any. However, it seems that many of them were making conscious efforts to observe suspicious activity. When asked what else they have done differently, a fair number of the members said that they have improved how much they monitor their property/neighbourhood, and others noted how the Watch has improved their knowledge of what to be on the lookout for. For example, one member said,

> *"I pay more attention to cars/ vans I don't recognize that stop on my street. When I'm outside, which is a lot, I look at people walking by and usually say hello. I pay extra attention if I don't recognize them as a neighbour or regular exercise walker."*

A couple members also reported that they asked their neighbours to watch their homes when they were away.

Most of the Long-term survey respondents said they have a good understanding of what, when, and how to report suspicious activities and crimes:

- 83% fairly or more clearly understand the types of suspicious things to be on the lookout for.
- 75% fairly or more clearly understand when they should report suspicious individuals or crimes.
- 69% fairly or more clearly understand how to report suspicious individuals or crimes.

Ways Watches Help Members Report Crimes or Suspicious Activity

The 7 members from the Long-term Member Survey that reported something to the police said their Watch helped them do so by:

- Updating them on what to be on the lookout for.
- Helping them know how to work with the right people and agencies to get an alert out to their neighbours.
- Increasing their knowledge of what, when, and how to report incidents.

It also seems that the increased connections among neighbours can help them share incident information with each other. Many survey respondents noted how the program increases connections with their neighbours, and some also noted how that helped them report potential incidences directly to their neighbours. For instance,

> *"I stay in touch with my neighbours more. I have their cell numbers and text them if I feel something is strange with their house or in our area. Example, my neighbour's garage door was open for an unusual amount of time when I know she closes them soon after getting home or leaving."*

Barriers to Reporting Crimes or Suspicious Activity

Some of the Long-term Member Survey respondents reported that they did not have a clear understanding of what, when, and especially how to report suspicious activities and crimes. Also, of those that did not report anything to the police:

- 4 (6%) said it was because they did not know who to report to.
- 4 (6%) said it was because they did not know how to make the report.

While that lack of knowledge was a barrier for only a small number of the Long-term Member Survey respondents, (who are likely the more engaged members), the lack of knowledge is likely a little greater among the other members that did not respond to the survey.

The following reasons for not reporting was also provided by different individual members: being too busy, concerned about making false accusations, or worried about the person/people committing the act finding out that they made the report.

Impact on Other Crime Prevention Behaviour

On the Long-term Members Survey, we asked Watch members what else they have done differently as a result of being part of their Watch. Beyond making security improvements and increasing their observation and reporting efforts, the members did not report many other things they are doing differently. However, a few members did report they are making more of an effort to be out in the community more often: *"I've gone out for walks and had conversations with people on the street which I probably wouldn't have done otherwise."*

Impact on Relationship with Neighbours

On the Long-term Members Survey, we asked Watch members to estimate how many of their neighbours they currently feel comfortable asking to watch their homes while they are away; as well as how many they would have felt comfortable asking prior to their Neighbourhood Watch. Those that had fewer of those types of connections prior to their Watch were more likely to report increases in those relationships since their Watch began. In total, 32% of the members reported experiencing increases in their connections to their neighbours.

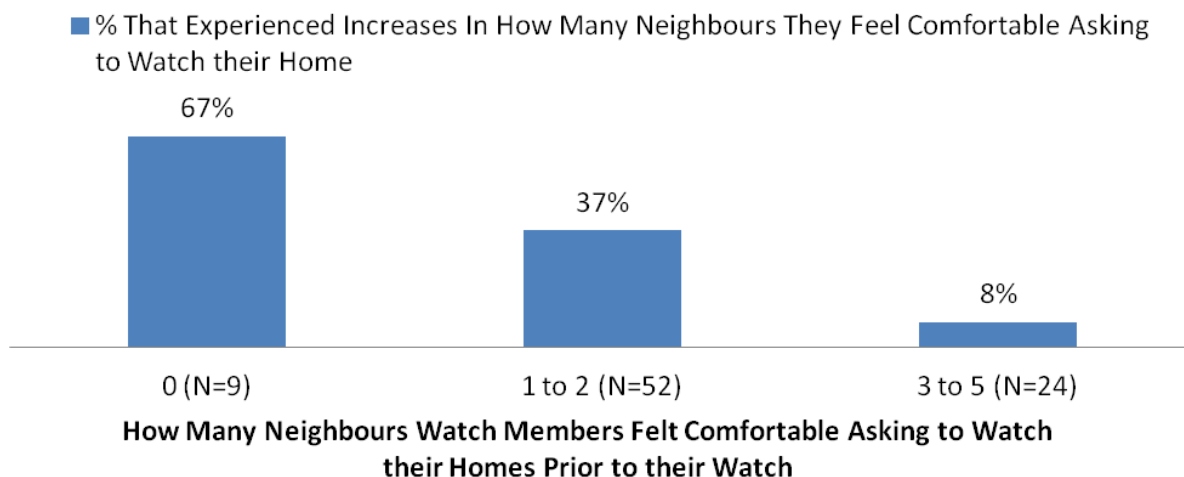Less Connected Watch Members were More Likely to Report Increases in their Connections to their Neighbours

Figure 6

No one reported feeling comfortable asking fewer neighbours to watch their home.

Beyond watching each other's homes, the watch members also gave many open-ended survey responses about how their connections with their neighbours have increased. Getting to know and communicate more with neighbours was the second most frequent response to what else Watch members are doing differently since joining their Watch. Also, Watch members most often noted the connections to their neighbours as what they like the most about the Neighbourhood Watch program; specifically, they like working together with their neighbours and looking out for each other. For example, one members said,

"We feel that all the Neighbourhood are concern and became one community sharing the idea of keeping the place safe and secure, and the spirit of team working and watching. It's a very nice idea to share and to know your neighbours."

Several of the Watch Canvassers also found the most helpful aspect of SCM's support to be their assistance with bringing the community together.

The Neighbourhood Watch Program helps neighbours communicate by providing a (semi) formal communication structure, by encouraging members to get to know their neighbours, and by providing tools to help neighbours get to know each other. Members' responses to the Long-Term Member Survey provides some evidence for the effectiveness of the "Know Your Neighbours" card. The card is handed out during the Set-up meetings and encourages people to collect the names and phone numbers of their surrounding neighbours. Members that used the card were about twice as likely as those that did not use the card to have increased how many neighbours they would feel comfortable asking to watch their home.

Members that Used the 'Know Your Neighbours' Card were More Likely to Increase the # of Neighbours they would Feel Comfortable Asking to Watch their Home

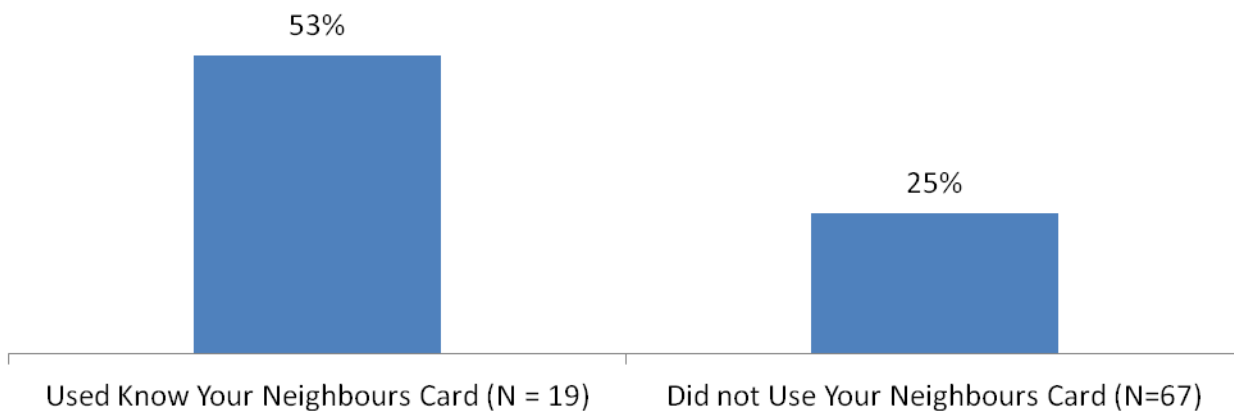■ % of Members that Increased the # of Neighbours They would Feel Comfortable Asking to Watch their Home

53%

25%

Used Know Your Neighbours Card (N = 19)   Did not Use Your Neighbours Card (N=67)

Figure 7

The members' feedback also provided some evidence that increased community cohesion can enhance crime prevention. The most frequently noted way community cohesion helps prevent crime is by increasing how often neighbours share information on the crime occurring in their neighbourhood and how to prevent it. Members also cited several examples of how their Watch has increased how often they look for suspicious activities and how often they share information about suspicious activities with their neighbours. For instance one member noted doing the following due to their Watch, *"Formed our street neighborhood group mail. Communicating any thoughts which may make our neighborhood safe. Improved monitoring of neighbours."*

While only coming up a in a few responses, some members also mentioned how knowing that their neighbours are looking out for them increased their feelings of safety. A few other members noted how neighbourhood cohesion can motive people to protect their neighbourhood, and a few Watch members and Canvassers mentioned how the community cohesion events (i.e. Neighbours Night Out) were helpful and they wanted more of them.

Impact on Feelings of Safety

The Post Set-up Survey asked attendees how safe they felt in their neighbourhood/home both before forming the Watch and now that they are part of the Watch. 42% reported experiencing an increase in their feelings of safety. However, whether the attendees reported increases or decreases in their feelings of safety depended on how safe they initially felt. Those that felt the most unsafe before the Watch Set-up Meeting tended to report greater increases in their feelings of safety, while those that felt safe or very safe prior to the Watch Set-up Meeting actually reported feeling less safe after the meeting. Unfortunately, 5 members that previously felt safe ended up feeling unsafe after their Watch Set-up meeting. Most likely, the set-up meeting made the members that already felt pretty safe more aware of the crime issues in their neighbourhood, which made them feel a little less safe. For those members, feeling a little less safe could be beneficial if it motivates them to work to prevent actual crimes.
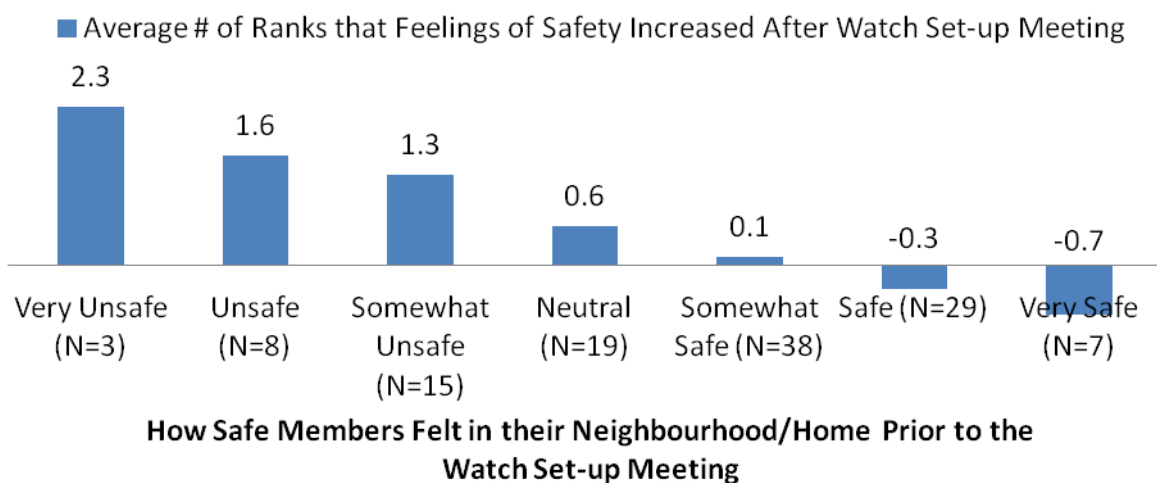

Figure 8

Fortunately, in the long-term, decreases in feelings of safety were minimized. On the Long-term Members Survey, we asked Watch members (87) to estimate how safe they felt walking alone at night in their neighbourhood both currently and before the Watch was set-up. About a third of the members reported increases in their feelings of safety, and fortunately, only 5 members (6%) reported decreases in their feelings of safety.

% of Watch Members Reporting Changes in How Safe they Feel Walking Alone at Night in Their Neighbourhood Since Watch Set-up (N=87)

- Felt More Safe
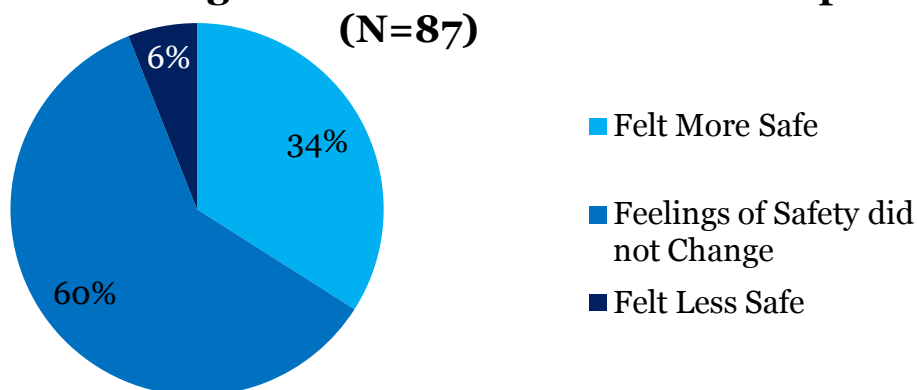- Feelings of Safety did not Change
- Felt Less Safe

Figure 9

As figure 9 indicates, Watch members were less likely to report decreases in their feelings of safety on the Long-term Member Survey compared to the Post Set-up Survey. That difference could be due to memory effects, the different ways the questions were worded, or Watches doing things after the initial meeting to limit decreases in feelings of safety.

It is also worth noting that Watch members may have reported greater increases in feelings of safety if the questions were worded more specifically around safety from property crimes; as Watches are meant to make a larger impact on those types of crimes.

Program Strengths

In general, Watch members are quite satisfied with the support they are receiving form Safe City Mississauga.

Watch Canvassers' Level of Satisfaction (N=12)

- Very Satisfied
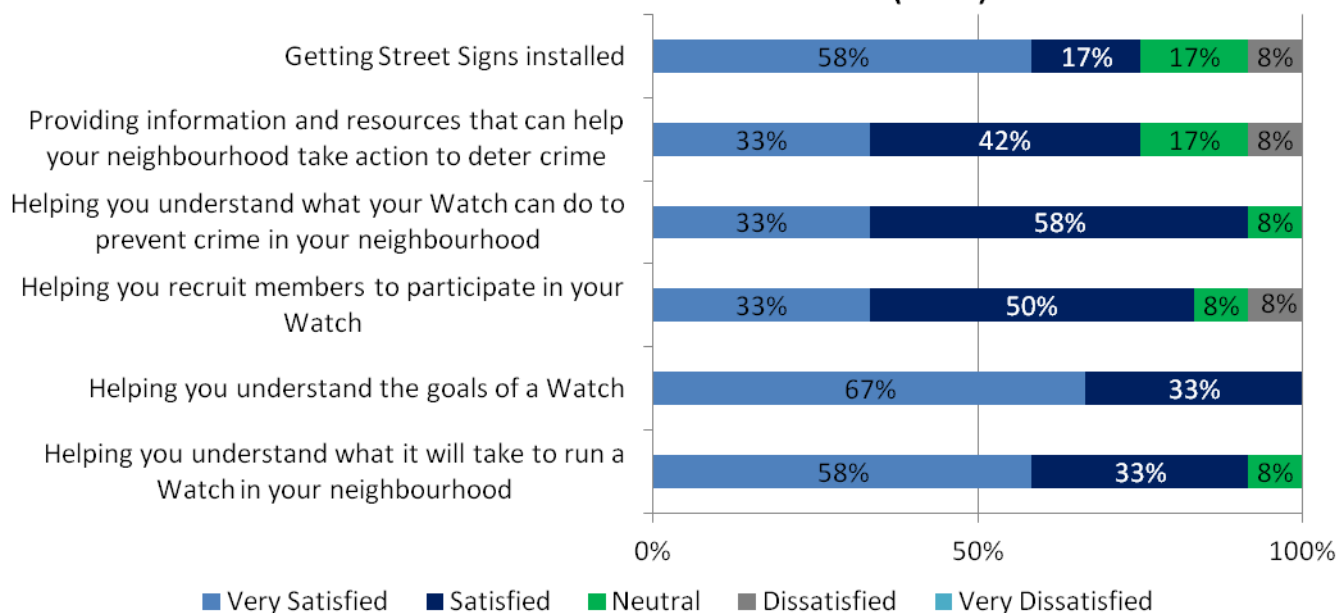- Satisfied
- Neutral
- Dissatisfied
- Very Dissatisfied

Figure 10

When asked what was the most helpful, the Canvassers' tended to focus on how SCM provides informational emails and resources and helps with organizing community meetings, among several other forms of assistance. For instance:

> *"I found the presentation by the Safe City representative and the community police liaison officer very helpful. [The police's] presentation was about the types of crimes and how they occur in a community [was] very helpful. [The Polices officer] realizes that each individual operates in a particular way not realizing that they may be putting themselves at risk. We are all human, after all. I found it interesting that most break-ins happen through the front door. Making sure we keep our front doors as visible as possible was evident through the on-site evaluation of the property. The amount of light was also an important aspect. Easy to remedy solutions if we are willing to co-operate. The handouts were also very helpful."*

Overall, the Set-up Meeting attendees (N= 121) rated the quality of presentation and the material they received highly.
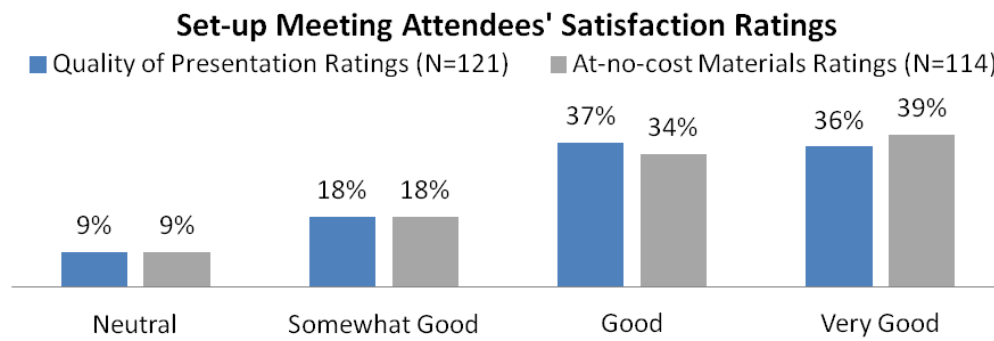

Set-up Meeting Attendees' Satisfaction Ratings
■ Quality of Presentation Ratings (N=121)   ■ At-no-cost Materials Ratings (N=114)

	Neutral	Somewhat Good	Good	Very Good
Quality of Presentation	9%	18%	37%	36%
At-no-cost Materials	9%	18%	34%	39%

Figure 11

Of the Long-term Member Survey respondents that attended their Watch's Set-up meeting (51), 93% were satisfied or very satisfied with the information that they received. Across all respondents:

- 68% were satisfied/very satisfied with the usefulness of that information.
- 65% were satisfied very satisfied with how often they receive Neighbourhood Watch information.

When asked what they liked the most about the Neighbourhood Watch program, many of the respondents to the Long-term Member Survey mentioned liking the information they received from Safe City Mississauga or Peel Police. Specially, the members value the regular updates on the crime incidences that are occurring in their neighbourhood: *"Frequent emails regular updates so we know what is going on. Makes us feel safe that we are protected."*

Opportunities for Improvement

While most Long-Term survey respondents were satisfied with the frequency and usefulness of the information they receive from Safe City Mississauga (SCM), about a third were not. Many members indicated that they wanted more frequent, detailed, and timely information about the crime incidents and Watch activities. For instance:

- *"We just received our first quarterly summary of Neighbourhood Watch incident report stats by email. I would appreciate receiving this every quarter."*

- *"Better and 'timely' notifications of activity happening would be helpful. Getting a message at the end of October saying there were no B+E's on my street up to the end of September and knowing my neighbor was robbed in mid October makes no sense and makes everyone think everything is fine."*

The NW Program Coordinator reports that they have recently started to send out more frequent communications, including:

- Sending the Watches bi-annual updates on the crime occurring in their neighbourhoods.
- Starting a monthly newsletter.
- Making easier to send mass emails to the Watch members.

Peel Regional Police sends SCM crime data about 3 to 5 weeks after every month, and then SCM would need some time to process the data and create reports. To provide access to more timely data, SCM can remind members that they can see all the incidences that occurred in their area for the last 30 days by visiting Peel Regional Police's crime map. SCM should add that reminder to the newsletter and the bi-annual updates.

Several members also suggested Safe City Mississauga provide more support to help engage the neighbourhood (i.e. support more community unity events, increase promotion and incentives for being active in Watch). Given that the Long-term Member Survey provided some promising results, increasing engagement in the Watch among the other members is likely to produce even greater crime prevention benefits.

Safe City Mississauga can likely encourage greater use of the support and materials it provides by either encouraging greater attendance at Set-up meetings or doing more outreach to the members that do not attend those meetings. From the Long-term Member Survey results, we found that those that attended the Set-up Meeting were more likely to reach out to SCM. Of the 7 individuals that reported approaching Safe City Mississauga with a Neighbourhood Watch question, only one did not attend their Watch's set-up meeting. The graph below also shows that those that attended the Set-up Meetings were more likely to use various documents and resources.

Increasing the use of those resources could result in greater impact. For instance, the Incident Report Magnet may help the 31% of members that did not have a fairly clear understanding how to report incidents, and using the Know Your Neighbour card does seem to help increase the number of neighbours members feel comfortable asking to watch their homes.

Those that Attend Watch Set-up Meeting are More Likely to Use Documents/Resources
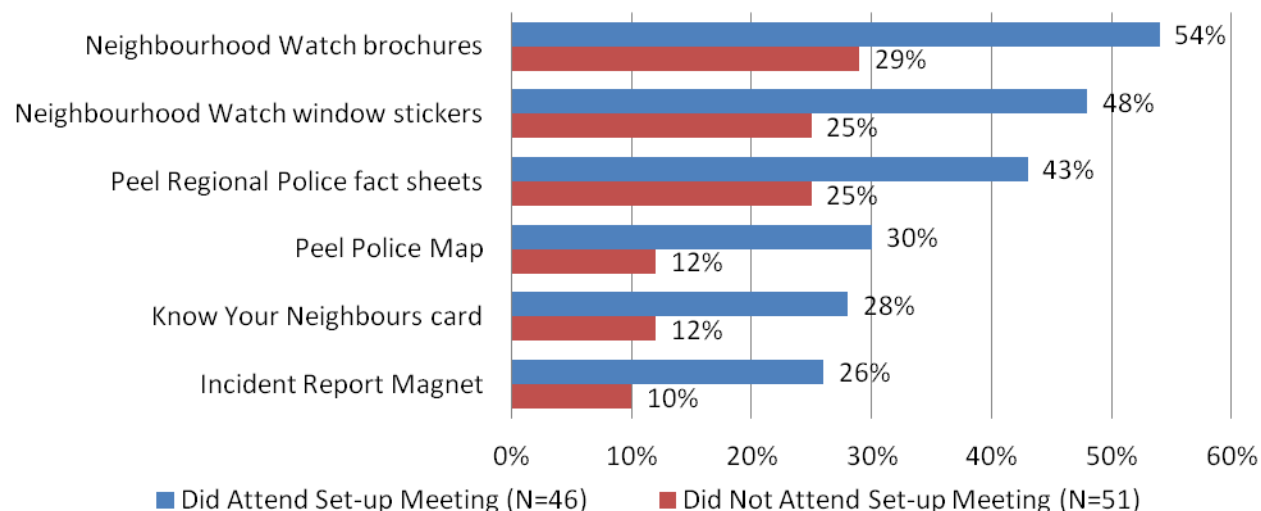
% of members that used document/resource

Figure 12

When asked how Safe City Mississauga could better support their Watch, many of the respondents to the Long-Term Members Survey requested changes in Police behaviour (i.e. increases in Police presence, faster response time, more likely to catch and punish criminals); however, Safe City Mississauga is unlikely to be able to influence the Police in those ways.

To assess which neighbourhoods' engagement in their Watches has decreased over-time, we examined which neighbourhoods had greater involvement in the Neighbours Night Out events. To protect the neighbourhoods' security, we will not report on specific neighbourhoods within this report. However, SCM can look to the data to help identify which neighbourhoods could use more assistance in reinvigorating engagement in the program. In the future, SCM Mississauga can also use each neighbourhoods' response rate to the Long-term Member Survey as a measure of their level of engagement with the program.

Summary & Recommendations

Overall, Mississauga's Neighbourhood Watch program is a very effective crime prevention program; leading to upwards of a 61% reduction in residential property crimes that get reported to the police. Given our evaluation design, crime displacement should have only a minor (if any) effect on our impact estimate. Also, we found that the Watches have resulted in few additional reports to the Polices, so changes in reporting should also have little impact on our impact estimate.   For anything else to bias our impact estimate, it would have to of systematically taken place in the Watch streets and not in the comparison streets around when each Watch was set-up throughout the three year period – which is a very unlikely scenario.

The use of CPTED to provide customized recommendations appears to have increased the effectiveness of the program, and SCM should continue to use and promote the practice. While we do not know the exact percentage of members that should have made security improvement, there is likely some room for improvement. For instance, 28% of Long-term Member Survey respondents said they had no or only a slightly clear understanding of how making changes to their environment can deter crime.

This evaluation did not explore every link in the program's theory of change, but it did find support for many of the links. While the strength of the links varies and cannot always be measured in quantitative terms, the evaluation found evidence that the program result in:

- Increases in knowledge of physical security improvements, along with increases in making those improvements.
- Increases in knowledge of what to look out for and what to report, along with increases in members being observant.
- Slight increases in reporting (potential) incidences.
- Increases in how well members know their neighbours, especially among neighbours that felt comfortable asking none or few of their neighbours to watch their home.   Increased connections to their neighbours were found to encourage greater observing and reporting of suspicious activities and crimes. The evaluation also found that the increased connections can help neighbours share crime incidence and prevention information amongst each other. Those links should be added to the program's theory of change.
- Increases in feelings of safety. The risk of decreasing people's feelings of safety was also found in a small number of cases where people already felt safe prior to the Watches being set-up.

In general, Watch members surveyed are quite satisfied with the program. However, there are some opportunities for SCM to increase members' levels of engagement and their knowledge of what they can do to prevent crimes; including:

- Sending more regular and timely communications to the Watch members. The communications should be sent by email, with the option for Watch Canvassers to print off and distribute some of the communications in hardcopy. The communications should include,
    - Reminders on what, when, and how to report suspicious activities and crimes.
    - Crime prevention tips, including how making changes to the neighbourhood physical environment can prevent crime.
    - Reminders to reach out to Safe City Mississauga for questions or assistance.
    - Information on recent crime incidences in the area and what to be on the lookout for, including reminders and links to Police Regional Police's crime map.
    - Attachments and links to related materials and resources (i.e. Crime Stoppers phone number, Know Your Neighbours Cards, or the Police Crime Map that provides near real-time crime incident data).
- Finding ways to increase attendance at the Watches' Set-up Meetings.
- Having follow-up meetings a year or two after Set-up to re-engage the members, review CPTED recommendations, and remind members of the materials and resources available to them.

Appendix 1: Data Collection Methods

Watch Canvasser Feedback Survey

During Oct. 29 to Dec. 2, 2015, the Watch Canvassers that took the lead in setting up Watches in 2015 were invited to complete an online survey that explored the quality of SCM's support and how that support can be improved. To help the Canvassers feel more comfortable providing critical feedback, the invitations were sent by SCM's Community Service Manager rather than the Neighbourhood Watch (NW) Program Coordinator.

12 of 19 (63%) Watch Canvassers responded to the survey.

Post-Set-up Survey

At the end of each Watch Set-up Meeting, the Program Coordinator hands out paper feedback surveys. The survey explores Set-up Meeting attendees' satisfaction with the meeting, the likelihood of Watch members changing their crime prevention behaviours, and what can be done to improve those things.

Surveys included in this report cover Watches set-up between January to Mid-September, 2015. While attendance was not taken at the meetings, the Watch Program Coordinator reports that the vast majority of attendees completed a survey.

Long-term Member Survey

In November, 2015, the NW Program Coordinator sent long-term follow-up survey invitations to members of Watches set-up from January 2014 to June 2015. The Long-term Member Survey explores Watch Members' satisfaction with the program, how their Watch has helped them or changed their behaviour, and their suggestions for improvement.

All members from those Watches that provided an email addresses (540) were invited to complete the online survey. In addition, the Program Coordinator sent mail invitations to complete the online survey to a random 50 Watch members that did not provide email addresses.

100 members provided some feedback, and 86 members completed the survey. So, the survey questions have response rates from 17% to 15%. Given that the survey was online and had a low response rate, the survey results are likely highly influenced by members that are more engaged in their Watch and by those members that are more comfortable communicating by email.

Neighbours Night Out/Community BBQ Attendance

The NW Program Coordinator coordinated with the Watches to obtain each Watches' estimate of the number of community members that attended Neighbours Night Out or Community BBQ events from January to September 2015. The data helps to assess the different neighbourhoods' level of engagement in the program.

Follow-up CPTED Audit

The Program Coordinator conducted 5 follow-up Crime Prevention Through Environmental Design (CPTED) audits, which covered 11 of the 35 streets where Watches were set-up in 2014. The Program Coordinator had completed the original CPTED audits prior to the Watches being set-up. The follow-up audits were completed in late-September to early-October, 2015. The Program Coordinator provided a summary of the recommendations made during the first audit and his observations of what has changed since then.

Interviews with Key Watch members

To provide more depth to the CPTED case studies, SCM had a placement student complete telephone interviews with 12 members from the Watches that had CPTED follow-up audits. An attempt was made to interview the Watch members that would be most likely to know about the various activities of the Watch as a whole. The interviews reviewed the Watch's original CPTED recommendations and asked about the changes that people in their Watch have made and why.

Property Crime Police Data

SCM obtained property crime incident data from Peel Regional Police. The data provides information on each property crime incident reported to the Police from 2008 to 2014, regardless of charges laid. We excluded non-residential property crimes from the data, because Neighbourhood Watch is not specifically meant to prevent crime in those areas.

Watch Selection

Our analysis includes Watches set-up between 2009 and 2013. We excluded Watch streets from the analysis when they covered less than 80% of the total dwellings on a street, because it would be hard to detect a Watch's impact if it did not cover a significant portion of a street. We excluded two other Watch streets that contained a mix of building types, because we could not find a similar street nearby. We excluded another Watch because the Watch set-up date was missing.

In total, we excluded 22 (17%) of 128 Watch streets.

Comparison Streets Selection

To select Comparison streets, we first looked for the nearest streets that had similar types of buildings (i.e. houses, apartment buildings, townhouse complexes, businesses, mixed, etc.) Of the similar streets that were nearby, we then selected the street that had a similar number of dwellings on the street. Whenever possible, we also consciously chose streets that had similar access/proximity to large streets/schools/parks.

Comparison Methods

We use two different methods to estimate the impact that the Neighbourhood Watch program has had on property crime: 1) an interrupted time-series analysis with a non-equivalent comparison series and 2) a pre-post non-equivalent group analysis.

For both methods, it is assumed that the only thing that systematically differed between the groups of streets and that could have systematically affected the trend in reported property crime is that Neighbourhood Watches were set up in the Watch streets. If that assumption is correct, then if Watches were not set-up, the change in crime in the Watch streets would be similar to the change in crime found in the comparison streets. If the Watches were successful at preventing crime on their streets, Watch streets would experience either a smaller increase or a larger decrease in property crimes.

Time-Series Comparison

Watches set-up from January 2010 to January 2013, along with their Comparison streets, were included in the time-series analysis. For each Watch and Comparison street we aligned the dataset so that they had 24 months of data prior to the Watch being set-up and 24 months of data during and after the Watch was set-up. Two series were calculated: 1) the total number of property crimes reported each month in Watch streets and 2) the total number of property crimes reported each month in Comparison streets.

We calculated the monthly difference in property crimes by subtracting the total incidences occurring in all the Comparison streets in a month from the total incidences occurring in the Watch streets in that same month. In

order to reduce the month-to-month variation in the series', and to better observe the trend in property crimes, the series was smoothed by taking the average of each month with the months just before and after it.

Pre-Post Comparison

Watches set-up during 2009 to 2013, along with their Comparison streets, were included in the pre-post analysis. Previous results showed that it most likely takes 2 months before the Watches have an impact on crime.[7] So, for each Watch and corresponding Comparison street, we calculated the number of property crimes reported during the 12 months prior to the start of the Watch's predicted impact on crime (starting 2 month after set-up) and then during the 12 months afterwards.

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[7] See: Bakker, P. (2015) "Crime Prevention Results of Safe City Mississauga's Neighbourhood Watch Program." Toronto: Social Impact Squared.

Appendix 2: Results of CPTED Follow-up Audits

Watch	Original CPTED recommendations	Status of CPTED recommendations at Follow-up
Watch 1 Detached homes	– Store more items that are on balconies in homes – Trim hedges (minor issue) & trees	– Less items on balconies – Some trees have been trimmed
Watch 2 Detached homes	– Have a study done to see if would benefit from additional signage to discourage speeding – Remove or trim trees on path between streets – Remove or trim bushes/pine trees for better sightlines to front doors	– Still not additional signage – A couple of trees removed on path between streets – Slight improvement in number of front doors with poor sightlines
Watch 3 Townhome complex	– Stop storing property in unfenced backyards – Install fencing for backyards & pool – Clean garbage from common area, backyards, and pool. – Clean up graffiti near pool. – Install signs to not loiter near parking staircase – Remove tree and bushes from corner area and area near pool.	– Property stored in easily accessible backyards still an issue – Two new backyard fences installed – Minor improvement in amount of garbage in common area – Graffiti has been cleaned up – Garbage in pool area cleaned up – No new signs to not loiter – Tree and bushes the same – Also, added camera and will be reopening pool area
Watch 4 Detached homes	– Close garages when they are not in use – Consider adding some outdoor activity to your daily routine – Install Watch sign at entrance of park – A few homes with trees causing poor sightlines	– Less open garages – More activity in the neighbourhood – Still few homes with trees causing poor sightlines – A Watch sign is now at the entrance to the park
Watch 5 Townhome complex	– Install fencing along one of the streets – Plant low-level hedges to 'fence' off backyards – Remove bushes around the visitor parking area – Install a CCTV camera path to plaza – Remove brick walls blocking view front door area	– Still no fence along one of the streets – Program Coordinator did not observe improvements in fencing or low-level hedges for backyards, but one Watch member reported that some neighbors did build fences – Now have Watch and trespassing warning signs at all entrances; as well as consistent use of Watch decals – Bushes around visitors parking removed completely – Still no CCTV camera on path to plaza – Brick walls not removed