

The Importance of Data in Crime Prevention: Diagnosis and Evaluation

Strategic Overview

Effective crime prevention strategies begin with diagnosing the incidents and causes of crime through local safety audits. Municipalities need to invest in identifying the local causes of crime in order to make informed decisions about priority issues. Cities across Europe have been undertaking diagnosis as the first step in a sound crime prevention and community safety plan for several decades (EFUS, 2016). Their conclusion is that the diagnosis must use data and the perspectives of those in the field and living in communities. Municipalities can look for assets and gaps in their existing services as well as inspiration from other effective strategies elsewhere (IPC, 2008). They also need to measure crime prevention outcomes through evaluation processes.

Municipalities can benefit from important guides and toolkits, such as those developed by partnerships between cities and universities in Europe. Depending on the complexity of the information that needs to be collected and analyzed, technical skills may be helpful for determining audit and evaluation findings. In Canada, the government collects relevant statistics through police, hospital, and census data as well as urban planning and public health through well-being indicators. This data can be used to help focus on risk factors of crime and thereby identify strategies and programs to reduce crime and victimization.

Current information technology systems are analyzing data on people and places where crime will occur, but are potentially more important for prevention than their current use in enforcement (RAND, 2013). Furthermore, Ontario has analyzed the circumstances that led to domestic violence deaths in order to prevent future incidents from occurring in similar contexts. This type of analysis has not been applied to the majority of homicides or instances of serious violence in Canada, but has been a key strategy used in other countries, and has resulted in significant and sustainable crime reductions in cities.

After a diagnosis of local crime issues, cities can develop a strategic plan, which is informed by evidence-based actions that have been successful elsewhere. It is also important to have good management techniques to execute the plan. Following the implementation of the plan, municipalities need to evaluate the outcomes in order to make necessary reforms and move towards the best results. This step can be preceded by the identification of new goals for the reduction of crime.

Actions for Municipal Stakeholders

1. Invest resources into diagnosis (i.e. data collection and analysis) in order to determine the occurrences and causes of crime in municipalities;
2. Train and support municipal staff in the diagnosis process. In some cases seek support from experienced practitioners and experts; and
3. Ask practitioners and experts for set goals for crime prevention programs and ways to assess outcomes and cost effectiveness.



Diagnosing the Causes of Crime through a Safety Audit

Inter-governmental organizations, including the World Health Organization, UN Office on Drugs and Crime, and UN Habitat, call for a diagnosis of crime problems as a necessary step in preventing crime. It is important to diagnose the causes of crime by analyzing trends and assessing the needs of the community in order to find preventative solutions. Once the causes are determined, evidence-based solutions can be identified and resources applied to implement the solutions with communities. Some examples of this process include cities such as Glasgow and Cardiff, which reduced street violence by 50% or more within a few years (AB2016.4). Glasgow did an epidemiological analysis to identify reasons for patterns of crime, including looking at the early risk factors of violence for both victims and offenders. Cardiff collected data in hospital emergency rooms, which more victims of violence go to than police, in order to identify points of intervention in critical moments to prevent future violence.

A local safety audit is a “systemic analysis undertaken to gain an understanding of the crime and victimization-related problems in a city; to identify assets and resources for preventive activity; to enable priorities to be identified; and to help shape a strategy that will enable those priorities to be tackled” (EFUS, 2007, p.10). These measures require that organizations and community members work together collaboratively to share information and determine the crime challenges, risk factors, and information sources (Allen, 2004). In order to achieve results, good communication between partners and sound participation are key. The full step process is available in the *Guidance on Local Safety Audits: A compendium of International Practice* available at http://www.saferspaces.org.za/uploads/files/EFUS_Safety_Audit_e_WEB.pdf

The European Forum for Urban Safety (2016) collaborated with French, German, and Italian city networks for crime prevention, some

major European cities, and experienced academic experts to produce a short guide for practitioners titled *Methods and Tools for a Strategic Approach to Urban Security*. The guide identifies the key steps and some basic tools to undertake local safety audits (diagnoses) of crime problems in order to create strategic plans and mobilize different sectors to reduce crime and feelings of insecurity. By using the steps identified in the guide, municipalities can find out what types of crime or social problems are occurring in their communities and determine what needs to be focused on to make communities safer. The full document is available at https://issuu.com/efus/docs/publication_a_en

Oakland California Prevention Institute has published important strategies to reduce injury and violence by addressing the roots of violence in communities. The Urban Network to Increase Thriving Youth created a RoadMap: A Framework for Effectiveness and Sustainability (2008), which provides a tool for how to develop a plan for projects to remain effective and focused on results. These efforts are best accomplished collaboratively with community members. The full document is available at <https://www.preventioninstitute.org/publications/unity-roadmap-framework-effectiveness-and-sustainability>

Canadian Data for Local Safety Audits

Data for local safety audits can come from police, hospitals, Statistics Canada, schools, social services, and other organizations. It is important that each organization identifies their role in the planning and implementation process, as they are key partners to the success of an audit. By determining the assets and underlying needs of communities, the data can be used to set goals and help resources to remain focused on results. In Canada, most police services can map the 911 calls for services and recorded crime. Statistics Canada has a range of useful data sets available including the victimization survey, police-reported data, census, and others. In 2008, Statistics Canada used police-reported

crime data and census track data to determine the correlations of crime and social factors in communities. These analyses are foundational to any safety audit as they show that most common crimes are concentrated in certain areas in municipalities and that these areas tend to have higher levels of unemployment and poverty, lower educational attainment, more single parent families and single dwelling homes, and limited social cohesion (StatsCan, 2008). These maps show that people in certain places are structurally disadvantaged and that in order to reduce crime, we must invest in those neighbourhoods to solve crime problems.

Big Data and Crime Prevention

The rise in data collection is providing new opportunities, such as predictive policing where data from police crime records and social and economic indicators are used to predict where offences are most likely to occur. Unfortunately, these algorithms have not been used for the purpose of preventing crime (i.e. to change the social situations). More recently, Canadian municipalities with situation tables or hub models have attempted to use some risk factor data to triage services to individuals in high need (McFee & Taylor, 2014; Nilson, 2016). Through partnerships with police, social services, housing, probation, school boards, mental health services, and researchers, they have worked to address the risk factors for crime and victimization and shared data on specific cases. These models attempt to identify early risk factors and intervene through the mobilization of case-specific interventions, including social supports. Data compiled through the situation tables can be analyzed to identify specific trends and gaps in services, and can be used to inform wider, systemic issues that need to be addressed in order to make significant reductions in crime and victimization.

Reviewing Serious Injury and Violent Deaths

In Ontario, the Domestic Violence Death Review Committee analyzes reasons that led to each intimate partner homicide and has produced a number of recommendations in order to prevent future incidents from occurring in similar contexts. As of today, implementation of the recommendations is lagging and the Committee is not connected to any provincial or municipal crime prevention office to lead a strategic plan. It is this logic of understanding the causes of deaths that was central to the epidemiological analysis undertaken by the Glasgow Violence Reduction Unit, which led to their large and sustained reductions in homicide. DeLisi (2010) reinforces this position because "even if a prevention program is very expensive -- and most of them are actually shockingly inexpensive -- they're still more cost effective than allowing [criminal] careers to unfold" (DeLisi, 2010). Waller (2014) has proposed changing criminal courts into preventive courts, which is in part inspired by community courts in New York City. The focus on criminal courts is particularly ironic as governments are prepared to pay significant sums to investigate murders to determine one or more persons who can be held criminally responsible, but are hesitant to invest in prevention. A typical murder investigation costs \$500,000 – roughly equivalent to the cost of four police officers for a year. Just imagine how investing an equivalent amount in upstream prevention will save multiple lives and injuries and cut back on those expensive homicide investigations.

Surveys are Important Tools

In addition, the use of victimization surveys such as the General Social Survey on Victimization (StatsCan, 2015) and specialized surveys on intimate partner and sexual violence can provide important findings to determine priority problems. Ontario has experience in conducting surveys in schools to measure bullying and sexual violence as part of the 4th R random control trial. Furthermore, universities and colleges are required to undertake surveys of sexual violence on campus. The results of these surveys can be used to address high priority issues to be put onto the agenda. Conducting surveys can be costly but the returns on investment from a safety diagnosis more than justify the costs. Further independent surveys may enable decision-makers to track outcomes over time and so justify further investment or improvements in programming.

Evaluating Outcomes Through Logic and Strategic Planning Are Basis for Successful Crime Prevention

It is essential to evaluate crime prevention outcomes in order for changes to be made to strategies and to move towards best results through logic and planning. Outcome evaluations test hypothesis on variables to see if certain interventions (i.e. programs and practices) had an impact. Evaluation can be preceded by the identification of revised goals for the continued effort to reduce crime. In 2015, the federal government mandate letters mentioned that they would be "informed by performance measurement, evidence, and feedback from Canadians (by) directing our resources to ... (have) the greatest, positive impact on the lives of Canadians". In order to meet this mandate, investments in evaluation research is needed to identify what is effective.

The Future of Policing task force (2014) emphasizes the need to measure outcomes such as fewer sexual assaults or homicides, and also to measure the costs incurred in achieving those outcomes. One of the best ways to measure outcomes is to use surveys as part of the diagnosis and then repeat every year to see if results are improving. The UN Sustainable Development Goals are focused on achieving outcome targets and will monitor and evaluate to "inform, support, measure and assesses development efforts" (EVALSDGs, 2015).

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The evidence used in this action brief are based on the list of resources available on www.safercities.ca which also provides the full references for abbreviated citations.

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