

SAFETY DIAGNOSIS TOOL KIT FOR LOCAL COMMUNITIES

# Guide to Conducting Surveys on Personal Safety in Life Settings

[charting a course > to safe > living]

vol. 9



In cooperation with:

• Ministère de la Sécurité publique

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# Canada Québec

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Ce document est aussi disponible en version française sous le titre de Trousse diagnostique de sécurité à l'intention des collectivités locales – Guide de réalisation d'une enquête sur la sécurité des personnes d'un milieu de vie. Il est accessible dans chacun des sites Internet mentionnés ci-dessus.

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# The [charting a course > to safe living] collection

This document is part of a collection prepared to foster and support safety promotion in life settings. Volumes 6 to 12 are the main components of a safety diagnosis tool kit developed for local communities. To date, the following volumes have been compiled for this collection:

Please note that the following list of volumes in the [charting a course to safe living] collection is different from the one provided in volumes 6, 10, 11 12 and 13, which were published prior to 2011.

# **VOLUME 1**

Renée Levaque, Laurence Le Hénaff and Pierre Maurice. Formation pour l'amélioration de la sécurité et la prévention de la criminalité à l'intention des collectivités locales, Québec, Institut national de santé publique du Québec, 2006.

# **VOLUME 2**

Josephina Alvarez. Réalisation d'un diagnostic de sécurité. Trousse à l'intention des collectivités locales – Les diagnostics locaux de sécurité: une étude comparée pour mieux comprendre et mieux agir, Québec, Institut national de santé publique du Québec, 2006.

# **VOLUME 3**

Julie Laforest. *Indicateurs de vulnérabilité associés à la sécurité d'un territoire*, Québec, Institut national de santé publique du Québec, 2007.

# **VOLUME 4 (forthcoming)**

# **VOLUME 5**

Louise Marie Bouchard, Monique Rainville, Pierre Maurice and Mélanie Tessier. Survey on Personal Safety and Victimization in Life Settings - Questionnaires and Instructions for Using a Computerized Data Capture, Processing and Analysis Tool, Québec, Institut national de santé publique du Québec (forthcoming in 2012).

# **VOLUME 6**

Louise Marie Bouchard, Pierre Maurice and Monique Rainville. *Safety Diagnosis Tool Kit for Local Communities - Safety Diagnosis Handbook*, Québec, Institut national de santé publique du Québec, 2012.

# **VOLUME 7**

Louise Marie Bouchard, Pierre Maurice, Daniel Rochette and Robert Lavertue. *Safety Diagnosis Tool Kit for Local Communities - Guide to Developing a General Portrait of Life Settings*, Québec, Institut national de santé publique du Québec, 2012.

### **VOLUME 8**

Louise Motard. Safety Diagnosis Tool Kit for Local Communities - Guide to Analyzing Crime Using Official Statistics - 2<sup>nd</sup> edition, Québec, Institut national de santé publique du Québec, 2012.

# **VOLUME 9**

Catherine Goulet-Cloutier, Louise Marie Bouchard and Pierre Maurice. *Safety Diagnosis Tool Kit for Local Communities - Guide to Conducting Surveys on Personal Safety in Life Settings*, Québec, Institut national de santé publique du Québec, 2012.

# **VOLUME 10**

Monique Rainville, Louise Marie Bouchard and Pierre Maurice. *Safety Diagnosis Tool Kit for Local Communities - Guide to Organizing Focus Groups - 2<sup>nd</sup> edition*, Québec, Institut national de santé publique du Québec, 2012.

# **VOLUME 11**

Julie Laforest, Louise Marie Bouchard and Pierre Maurice. *Safety Diagnosis Tool Kit for Local Communities - Guide to Organizing Semi-Structured Interviews With Key Informants - 2<sup>nd</sup> edition, Québec, Institut national de santé publique du Québec, 2012.* 

# **VOLUME 12**

Louise Marie Bouchard, Pierre Maurice and Monique Rainville. *Safety Diagnosis Tool Kit for Local Communities - Guide to Direct Observation of Community Safety - 2<sup>nd</sup> edition*, Québec, Institut national de santé publique du Québec, 2012.

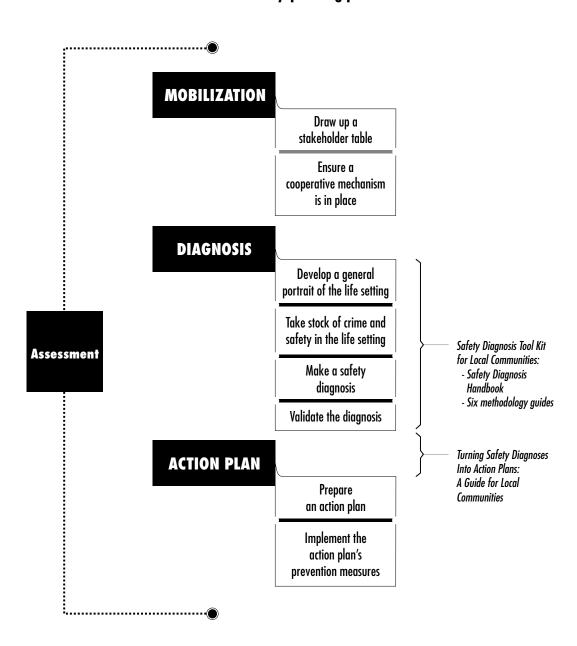
# **VOLUME 13**

Julie Laforest, Louise Marie Bouchard and Pierre Maurice. *Turning Safety Diagnoses Into Action Plans: A Guide for Local Communities*, Québec, Institut national de santé publique du Québec, 2010.

# About this guide...

Promoting safety and preventing crime through a setting-oriented approach requires a structured procedure for planning the various activities to be carried out. The procedure involves mobilizing the population and intersectoral partners, making safety diagnoses and drawing up action plans. The *Safety Diagnosis Tool Kit for Local Communities* was prepared to assist with this procedure. It comprises several tools, including the *Safety Diagnosis Handbook* and six methodology guides. The document *Turning Safety Diagnoses Into Action Plans: A Guide for Local Communities* was prepared in addition to the tool kit, to facilitate the process of translating diagnoses into effective action plans.

# Structured activity-planning procedure



The present document, *Guide to Conducting Surveys on Personal Safety in Life Settings*, is one of the methodology guides included in the *Safety Diagnosis Tool Kit for Local Communities*. The purpose of this guide is to help identify crime and safety problems as they are perceived by the population. Surveys are designed to gather information from a population or from a sample of individuals within a population. They usually make it possible to contact a larger number of people than do other data collection methods, such as semi-structured interviews, direct community observation and focus groups. They can also provide insight into a wide range of safety problems and are the best method for gathering information on victimization because they allow respondents to remain anonymous.

For easier understanding, this guide contains examples that illustrate some of the steps involved in planning and conducting surveys and in analyzing their results. It should be noted, however, that these examples are independent of one another. The example on results analysis is continued in the *Safety Diagnosis Handbook* of the *Safety Diagnosis Tool Kit for Local Communities*.

# **Table of contents**

Surveys — A general overview	VI
Organization of the guide	>
1 <sub>n</sub>	
Planning surveys	1
FORMULATING CLEARLY DEFINED SURVEY OBJECTIVES	
MAKING ADMINISTRATIVE DECISIONS	
Human resources	
Financial resources	
Material resources	
Time frame	
CHECKLIST FOR PLANNING SURVEYS	
2.	
Designing a survey method	11
LOCATING AND DEFINING THE LIMITS OF THE STUDY AREA	
DEFINING THE TARGET POPULATION	
DEVELOPING A SAMPLE DESIGN	
Constructing a survey frame	
QUESTIONNAIRE AND RESPONSE METHOD	
PREPARING AN ANALYSIS PLAN	
CHECKLIST FOR DESIGNING A SURVEY METHOD	
③. 3.	
Conducting surveys	25
FIELD PREPARATION	25
CHOOSING A RESPONSE METHOD	25
Completion by participants	25
Completion by interviewers	26
CHOOSING A RETURN METHOD FOR THE QUESTIONNAIRE	27
CHECKLIST FOR CONDUCTING SURVEYS	28
4.	
Processing and analyzing the data	31
CAPTURING THE DATA	31
ORGANIZING THE DATA	33
ANALYZING THE DATA	33
Extracting meaningful information	35
Analyzing meaningful information in order to identify key findings	
PRESENTING THE RESULTS	
CHECKLIST FOR PROCESSING AND ANALYZING THE DATA	40

References	43
APPENDIX 1 — Suggested additional reading	45
APPENDIX 2 – Sample budget worksheet	49
APPENDIX 3 — Selection of a probability sample representative of the population	53

# Surveys - A general overview

Generally speaking, surveys are used to obtain three main types of information:

- information on the characteristics of individuals, including their personal characteristics (age, marital status, level of education, etc.), behaviour (amount of time spent doing certain activities, etc.) and living environment (workplace, housing, etc.);
- information on the opinions of individuals (how safe or unsafe they feel, what they think about certain facts, ideas, programs or events, etc.);
- information on their past personal experiences (victimization, etc.).

The data gathered during a survey can be grouped and analyzed to detect trends or associations, such as whether certain groups within a population (e.g. the members of a particular age group, men or women) or people in certain areas share a particular opinion to a greater extent than other groups or people do.

Surveys conducted as part of a safety diagnosis are aimed at painting a portrait of the crime and safety problems experienced or perceived by the population in a particular life setting. Their objective may be to develop a general portrait of safety in that setting or to study in greater depth issues or problems already identified in the setting by other data collection methods.

This guide is designed to assist local community stakeholders in planning and conducting surveys on personal safety in life settings. The portrait such surveys provide can be supplemented by information gathered with other methods, such as consultation of official crime statistics, direct observation of community safety, focus groups or semi-structured interviews with key informants. Ultimately, this information can be used to further document some of the safety issues covered by surveys, with a view to making safety diagnoses.

<sup>1.</sup> See the three guides in the *Safety Diagnosis Tool Kit for Local Communities* dealing respectively with semi-structured interviews, focus groups and direct observation of community safety [www.crpspc.qc.ca].

# Main characteristics of surveys conducted within the context of safety diagnoses

# **Objectives**

- Help identify crime and safety problems as they are perceived by the population.
- Obtain a portrait of the main safety issues from information gathered from a sample of individuals in the population.
- Develop a portrait of how the population perceives safety issues (e.g. feeling of safety, victimization experience, assessment of services, avoidance and protective behaviour, and disorder and incivility).

# **Advantages**

- Make it possible to obtain a large enough sample for painting a representative portrait of the situation in a life setting.
- Make it possible to compare information from different sub-groups within the population (e.g. men vs. women, young adults vs. seniors, people from Sector A vs. people from Sector B).
- Make it possible to gather information in a uniform way.
- Can be implemented fairly rapidly.
- Can cover a wide range of topics, including victimization.

# **Disadvantages**

- Can be fairly costly.
- Do not provide, in many cases, enough information for an in-depth understanding of the reasons behind the situations observed.

# **Comments**

- Require expertise in quantitative analysis during both the survey design and data analysis phases.
- Usually reach a larger number of people than other methods such as semi-structured interviews, direct community observation and focus groups. Also provide insight into a wide range of safety problems and are the best method for gathering information on victimization because they allow respondents to remain anonymous.

# Organization of the guide

THIS GUIDE IS DIVIDED INTO FOUR PARTS.

The first part explains how to plan surveys and discusses the main administrative choices involved.





# **Checklist**

A checklist of questions is provided at the end of each part of the guide to enable you to keep track of the various activities that must be performed. The second part explains how to design surveys, including how to define the target population, develop a sample design, choose a questionnaire and prepare an analysis plan.



The third part explains how to conduct surveys, including how to do field preparation, choose a method for administering the questionnaire and ensure the return of completed copies of the questionnaire.



The fourth part explains how to process and analyze the data gathered in order to identify key findings.



The guide concludes with suggestions for additional reading, a sample budget worksheet and a detailed explanation of how to select a probability sample.



# SINING PLANNING

# **Planning surveys**

Three main types of decisions have to be made when you plan a survey: decisions aimed at defining the survey's objectives, administrative decisions and methodology decisions. Although these three types of decisions are discussed in turn in this guide, they are part of a non-linear process whose different steps

# Before you go any further...

If you are doing a survey as part of a safety diagnosis, certain decisions may already have been made in planning the diagnosis.<sup>3</sup> It is important to take into account any decisions made earlier as they may have a bearing on the administrative and methodology choices you have to make in planning the survey, including choices on the survey's objectives and the safety topics that will be covered.

affect one another. The reflection required to plan surveys can thus entail a certain amount of back-and-forth between these steps. For example, you will be able to determine what resources are available in the fairly early stages of a project. However, you will not be able to determine what resources you actually need until you have finished planning the survey. And this in turn may require that you clarify or change the survey's objectives so that they better reflect available resources.

# FORMULATING CLEARLY DEFINED SURVEY OBJECTIVES

The first thing you have to do in planning a survey is to clearly define the reasons why it is being carried out. For

example, the survey may be in response to certain major emerging or recurring problems, a desire to gain a better grasp of the safety of a life setting, a need to take action to prevent crime, or a request from citizens or an organization.

Surveys may be designed to develop a portrait of a particular life setting, a population or a sub-group of a population or to document specific problems. Once a survey is completed, some of the issues it covered can be studied in more detail through other data collection methods, such as focus groups, direct community observation, interviews with key informants, and so forth. Conversely, surveys can be used to further document and better understand safety problems or issues identified by these other methods. But regardless of why a survey is being carried out, you must explain the reasons as clearly as possible for they will have an impact on the scope of the project and particularly on the resources allocated to it.<sup>3</sup>

Once you have defined the reasons for doing a survey, you must also determine, if this has not already been done, what objectives the survey is meant to achieve. Above all, the objectives must be clear to and shared by everyone who will take part in conducting the survey.

<sup>2.</sup> See the section "Define the objective of the safety diagnosis project" in the Safety Diagnosis Handbook of the *Safety Diagnosis Tool Kit for Local Communities* [www.crpspc.qc.ca].

<sup>3.</sup> To foster discussion on this topic, see the section "Why make a safety diagnosis?" in the *Safety Diagnosis Handbook* of the *Safety Diagnosis Tool Kit for Local Communities* [www.crpspc.qc.ca].

To determine the survey's objectives, consider the following three key questions:

# What do you want to learn?

Your answer to this question will determine which aspects of crime and safety the survey will explore. It can be useful to draw up a definition of safety or at least a list of topics that must be covered. Safety has different meanings for different people. Therefore, it is essential to agree beforehand on the topics that will be explored so that the survey meets the expectations of all parties concerned. For example, do you want to simply study *acts* of violence and crime committed in the study area or do you also want to look at residents' feeling of safety?

# Do you have to target specific sectors?

Certain zones within your study area or certain types of life settings may be faced with more crime and safety problems than others. In such cases, it might be a good idea to target the zones or life settings with the most problems. On the other hand, if you want to obtain a general portrait of safety in the study area, you should do a survey of the entire area.

# Whose opinion do you want to obtain?

Do you want to sound out the entire population or only certain groups? Just as you can decide to target only certain zones or types of life settings, you can also choose to survey only certain sub-groups of the population in the study area (e.g. all of the people within a particular age group).

Even though the last two questions will lead you to consider issues that will primarily affect your choice of survey method (see the section "Designing a survey method"), it is important to give some thought to them during the planning phase. You must also bear in mind that your survey objectives have to take into account the time and resources available to you.

# Example 1 – Survey objectives

A working group consisting of several local stakeholders was set up in order to do a safety diagnosis in a municipality. The working group decided to conduct the diagnosis through a survey, followed by more in-depth study of some of the issues the survey raised, through semi-structured interviews with key informants and focus groups with residents and merchants.

The working group adopted the following vision statement on community safety for the purposes of the diagnosis: "A safe community is one where hazards and conditions that can lead to physical, psychological or material harm are controlled in order to preserve the health and well-being of individuals and the community." Based on this statement, which reflects a broad view of safety, the working group decided that the survey would cover the following five topics: social cohesion, people's perception of safety, their perception of the risk of being intimidated or assaulted, their perception of crime and their assessment of safety services.

In addition, since the goal was to paint a portrait of safety in the municipality, the working group decided to target people aged 18 and over rather than a particular sector within the municipality.

# MAKING ADMINISTRATIVE DECISIONS

The aim of administrative decisions is to determine the total budget available for a survey, identify who will take part in conducting and coordinating it, decide what material and equipment is needed and set as realistic as possible a deadline for submitting the results.

To facilitate the planning phase, you should check to see if a similar survey has already been done in your study area or in a life setting similar to the one you want to explore. If so, it might be useful to contact the people or the group who were in charge of the survey in order to obtain their opinion on how things went. This might enable you to avoid certain pitfalls and provide you with valuable advice for conducting your own survey.

Everyone is capable of doing a survey. However, to ensure

the results are valid, we strongly recommend that you plan it carefully, taking into account available financial, human and material resources, as well as the time needed to conduct it. Since financial resources are usually the hardest constraint to change, it is best to draw up a realistic budget right from the start.

Therefore, we suggest you do an inventory of the human, financial and material resources required for the survey

and of those that are available. If the gap between the two is too wide, you will have to make choices: find the additional funding you need, abandon certain activities, or revise your expectations and change the survey project accordingly.

# **Human resources**

When you plan a survey, it is important to bear in mind that all of the activities needed to carry it out can be conducted in whole or in part by third parties, either free of charge or for a fee. This is especially true when it comes to completing the questionnaire, capturing and processing the information gathered, and analyzing the data, a process that requires expertise in quantitative analysis. However, before you decide to recruit outside resources, we recommend that you take stock of the skills of the people already involved in your project and that you determine whether any assistance can be provided by local partners. Certain individuals, such as teachers or students from higher educational institutions, professionals from public health offices and people from community organizations, may be willing, to do certain things for free if they have the time and the means. When part of a survey is conducted by a third party (organization or individual), you must clearly explain the survey's objectives as well as your needs to that party. Likewise, the organization or individual must say exactly what they can do and how they plan to do it.

# **Voluntary contributions...**

In preparing a budget worksheet for a survey, we suggest that you include voluntary contributions if individuals or organizations have promised to carry out certain activities for free. This will enable you to include all of the resources you need for the survey in a single worksheet. If you can obtain commitments in writing (notes, e-mails, letters, etc.), so much the better. In any event, you have to find out the name and contact information of the person or organization that has made the commitment, the task that is to be performed, the time that has been allocated to perform it and the date by which it must be completed. In this way, if someone replaces the person in charge of the survey, he or she will know who to contact for each task and how to get in touch with that person.



Surveys can require the participation of three types of human resources: a lead person or coordinator, the people who actually conduct the survey and specialized resources.

# Lead person

If you have not already done so, you must designate someone to be in charge of planning the survey and of the activities involved in carrying it out. This person must also make sure that the budget is adhered to and that the activities proceed as planned. If necessary, he or she will also be responsible for hiring and training volunteers and assigning them to tasks connected with the survey. Generally speaking, the more a community takes charge of a survey, the more volunteers will become involved in it and the more the lead person, or coordinator, will be required to devote time to it. Lastly, it is important to consider the question of accountability during the planning phase by deciding if the coordinator must report to someone and, if so, to whom.

# Persons responsible for conducting the survey

Unless you ask respondents to fill out the questionnaire themselves or you entrust the survey to an outside firm, you will have to hire interviewers to complete the questionnaire and train them. The goals of the training should be as follows:

- explain the role you expect the interviewers to play during the survey;
- discuss the problems that can arise when sensitive issues (violent experiences, suicidal thoughts, etc.) are broached, and how to resolve them;
- ensure interviewers have a good understanding of all the survey questions and the answer choices;
- ensure the interviewers always administer the questionnaire in the same way.

The number of interviewers
will depend on, among
other things, the anticipated
number of respondents, the
data collection method, and
the amount of time it takes
to complete the questionnaire.

### Specialized resources

You will probably have to recruit specialized resources to carry out some of the more complex tasks connected with the survey:

- If sensitive topics will be discussed, you may need help during the data collection phase. For instance, if you want the questionnaire to cover the topic of suicide and the survey is conducted by telephone, interviewers must be prepared to deal with any emergencies or sensitive situations that might arise. They may require access to a psychologist or a crisis intervention worker who can immediately talk to respondents in difficulty.
- You may need the help of a statistician or survey methodologist in order to calculate the size of your sample.

- You may require the services of a firm specialized in capturing data from questionnaires, especially if there is too wide a gap between the number of respondents and the human resources available to you.
- You may find it much easier to process the information you have collected if you hire people with experience in electronic data processing.
- You may have to enlist the help of professionals with expertise in quantitative survey data analysis in order to analyze your results.

# **Financial resources**

Several situations can arise with regard to financial resources. The most common are: 1) the budget needed for the survey is known and closed and 2) the budget still has to be calculated. In either case, we recommend that you draw up a detailed budget showing the funding allocated to data collection, data capture and processing and the analysis and editing of the results. Appendix 2 contains a sample budget worksheet<sup>4</sup> that you should fill out before you launch a survey. Note, however, that you will have to validate and perhaps even change the budget later on. Your choice of survey method, in particular, will have a major impact on the financial resources needed for the survey (see the next section).

# **Material resources**

In addition to human and financial resources, you also need a number of material resources to conduct a survey. We suggest that you draw up a list of all the material resources required in order to determine if the available budget is large enough to achieve your objectives in each of the following phases of the survey:

- field preparation (e.g. posting information on the Internet, preparing inserts for local newspapers and leaflets);
- distribution and completion of the questionnaire (e.g. a list of telephone numbers or addresses, mailing envelopes, vehicles for getting around the study area, photocopies of the questionnaire);
- return of the questionnaire (e.g. postage-paid envelopes, fax machines);
- data capture and processing and presentation of the results (e.g. computers, workspace, etc.).

Material resources depend largely on the questionnaire, available human resources and budgets, and data collection methods.



<sup>4.</sup> This worksheet can be downloaded in Microsoft Excel format from the Web site of the Québec Safety Promotion and Crime Prevention Resource Centre/Centre québécois de ressources en promotion de la sécurité et en prévention de la criminalité [www.crpspc.qc.ca].

### Time frame

We suggest you set a deadline for disseminating the results of the survey. In some cases, a deadline has already been established and you have to plan the survey around it. However, even if you have a flexible time frame, we strongly recommend that you not take more than a total of four months to complete the survey. Otherwise, you run the risk of seeing your partners lose interest and of delaying the implementation of solutions to the problems

The deadline should take
into account not only
the available budget and other
resources but also the method
chosen for administering
the questionnaire.

identified. In any event, drawing up a work schedule specifying the amount of time that should be devoted to each of the steps involved in planning and conducting the survey will definitely help you to meet your deadline.

We also recommend that you avoid doing surveys at certain times of the year, such as over the summer or Christmas holidays, when respondent participation is very low.

Reasons for the survey:	Vos	NI.
Are the reasons for conducting the survey clear?  COMMENTS	Yes	C
Have you modelled the survey after a similar one already conducted in the study area or in a similar life setting?  COMMENTS	Yes	No
Objectives:		
Have you defined the survey's objectives?  COMMENTS	Yes	No
Do all the parties know and agree with the objectives?  COMMENTS	Yes	No
Do the objectives seem realistic given the resources available and the survey time frame?  COMMENTS	Yes	No
Iuman resources:		
Have you taken stock of all of the resources that might be available for doing the survey (e.g. in schools or research institutes, regional public health offices, community organizations)?  COMMENTS	Yes	No
Have you designated someone to be in charge of planning and coordination? Will this person have to report to anyone and, if so, to whom?  COMMENTS	Yes	No
Do you want to hire a survey firm to collect the data?  COMMENTS	Yes	No
Where applicable, have you hired experts (e.g. psychologists, statisticians, analysts) for certain stages of the survey?  COMMENTS	Yes	No
If the questionnaire will not be completed by the respondents themselves or by a survey firm, have you hired interviewers?	Yes	No

De von brown who will continue the data for on the consulated and the first state of the consulated and the	Yes	No
□ Do you know who will capture the data from the completed questionnaires?  COMMENTS	' <b>O</b>	O
☐ Have you chosen people to process the data?  COMMENTS	Yes	N <sub>0</sub>
☐ Have you chosen people to analyze the results?  COMMENTS	Yes —	N <sub>0</sub>
☐ Are the roles and responsibilities of each party clearly defined and are they understood by everyone?  Comments	Yes —	N <sub>0</sub>
☐ If the survey broaches sensitive issues, have you developed a protocol for emergencies or problem situations?  COMMENTS	Yes	N <sub>o</sub>
Financial resources:	v	
□ Have you drawn up a detailed budget for the survey?  COMMENTS	Yes	N <sub>0</sub>
☐ Does the budget take all necessary human and material resources into account?  Comments	Yes	N <sub>0</sub>
□ Where applicable, is the budget accompanied by written proof of commitments and voluntary contributions (e.g. notes, letters, e-mails)?  COMMENTS	Yes	N <sub>0</sub>
☐ Is the budget realistic given the available financial resources?  COMMENTS	Yes	N <sub>0</sub>
Material resources:		
☐ Have you drawn up a list of all the equipment required for the different phases of the survey?  Comments	Yes	N <sub>0</sub>
	_	

PLANN
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Have you set a deadline for completion of the survey?  COMMENTS	Yes	No
Is the deadline reasonable given the context, expectations, and available resources, as well as the method chosen for completing the questionnaire COMMENTS	Yes	No
Have you drawn up a work schedule stipulating the amount of time that is to be devoted to each phase of the survey?  Comments	Yes	N <sub>0</sub>
Have you chosen a good time of year for doing the survey?  COMMENTS	Yes	N <sub>0</sub>

# DESIGN

# Designing a survey method

Surveys can be conducted in several different ways. For example, you can target the entire population of your study area or only certain sub-groups, such as seniors or young people. You can also decide to survey only residents of the area or a combination of residents and people who work there.

In addition, since it is probably impossible to survey all of the individuals in a target population, you will have to limit your study to a sample of people from that population. You will then have two options: either you can strive to ensure that the results obtained with this sample are representative of the target population as a whole or you can simply explore the various safety topics covered by

If a survey is conducted
as part of a safety diagnosis,
the survey method you choose
must take into account any
decisions that have already
been made about the survey's
vision and objectives,
the study area, the target
population and the topics
to be explored.6

the survey with the target population without worrying whether the portrait generated will be representative of that population or not. The latter approach is usually easier to apply and it can be useful for exploring such things as the different viewpoints encountered in a population, without attempting to determine the relative prevalence of each one. However, it is important to bear in mind the limits of this method and to avoid trying to make the data say things that it cannot (see the section "Developing a sample design" for more information).

As for the data collection method, it can involve administering the questionnaire to respondents during face-to-face interviews, by telephone or though print or electronic means. In the latter case, respondents have to fill out the questionnaire themselves.

In short, in order to design a survey method, you have to locate and define the limits of the study area, define the target population, develop a sample design, select a data collection tool (questionnaire) and a response method, and prepare a data analysis plan. All of the decisions made in this regard should be based on the different parameters agreed upon during the previous phase (see the section "Planning surveys").

### LOCATING AND DEFINING THE LIMITS OF THE STUDY AREA

The study area refers to the geographical zone in which the questionnaire will be distributed. It may be an administrative territory, a city block, a zone next to a park, a commercial artery, and so forth. The study area may already be clearly defined, but if it isn't, you will have to do so. You must bear in mind that the size of the study area, coupled with the data collection method chosen, will have a direct impact on the human, financial and material resources required for the survey.

The final choice of study area will result from a compromise among the survey's objectives, the available budget, deadlines and whether or not certain activities are performed free of charge.

<sup>5.</sup> For more information, see the section "Define the objective of the safety diagnosis project" in the *Safety Diagnosis Handbook* of the *Safety Diagnosis Tool Kit for Local Communities* [www.crpspc.qc.ca].

It is also important to reflect beforehand on how the data will be analyzed. For example, do you want to compare the answers from different parts of the study area? Or, if the survey concerns a particular municipality, do you want to compare the answers given by the residents in each neighbourhood or borough? You have to make these decisions during the planning phase, as they will affect the size of your sample and the analysis of the data you have collected.

// Exemple //

# Example 2 — Defining the limits of a study area

A working group decided to do a survey on crime and safety in an area bordering their municipality's main street. According to a number of community organizations and municipal workers, several people had reported that this area was particularly prone to problems like graffiti, loitering and fighting outside bars.

Based on the information provided by the members of the community organizations and by the municipal workers, and using a detailed map of the municipality, the working group defined an area around the main street in which the questionnaire would be distributed. The area was bounded by St. John Street to the north, Church Street to the south, Louis-Riel Road to the west and St. Antoine Street to the east. It was decided that both sides of these streets would be included in the study area.

# **DEFINING THE TARGET POPULATION**

The target population consists of the people who live in, work in or pass through the study area and from whom you would like to gather information. To define the target population, you have to identify criteria based on the objectives of the survey and available resources. To that end, it is important to know the life setting concerned.<sup>6</sup> The following questions might guide your reflection in this regard:

- Will the survey target the population as a whole or only a sub-group (e.g. men, adults aged 18 and over, seniors aged 60 and over, men aged 18 and over, young people)? Note that if you target young people under 18 years of age, you have to take into account the ethical and legal constraints involved in surveying minors.
- Will you survey only residents of the study area or a combination of residents and people who pass through or work there?
- Where applicable, will you also survey people who live in institutional households (hospitals, prisons, accommodation centres, etc.)?
- Will you survey people who cannot read or write French or English? If so, you will have to find out which languages they read and write and have the questionnaire translated. In that case, you will have to include translation costs in your budget.

<sup>6.</sup> If a general portrait of the life setting is available, we suggest that you refer to it to foster discussion on how to define your target population.

# Example 3 — Defining the target population

A working group in charge of developing a portrait of safety in their municipality decided to do a survey. Since their objective was to make a safety diagnosis for the municipality as a whole, they decided to administer the questionnaire to all adults (18 and over) who lived or worked in the study area. Store owners and their employees were included in the survey, as their perception of safety was deemed particularly important with regard to crime and safety on downtown commercial streets.

The working group also decided that it would be necessary to compare the responses of residents with those of non-residents.

Lastly, since a general portrait of the study area developed prior to the survey had revealed that there were practically no allophones among the municipality's residents, it was decided that the questionnaire would be distributed in French and English only. In the event that an allophone received a questionnaire, he or she would not be included in the survey.

# DESIGN

### **DEVELOPING A SAMPLE DESIGN**

Unless your target population is very small and you can survey all of the people in it, you must select a group of individuals to whom you will distribute the questionnaire. This group is called a sample. You have two options in this regard.

### OPTION 1 – REPRESENTATIVE OR PROBABILITY SAMPLE

If you want to ensure that what you observe among the people surveyed reflects what you would have observed had you surveyed the entire population, you have to select a representative sample. To that end, you must adhere to the following two principles:

- a) Every person in the population must have an equal chance of being selected for the sample. Generally speaking, this principle is applied by choosing individuals at random.
- b) The number of individuals in your sample (sample size) must be large enough.

Considering how complex it is to select a representative sample and given all the things that have to be considered along the way, we strongly recommend that you ask a specialist in quantitative methods (e.g. survey methodologist, statistician, epidemiologist) to help you. In cases that are not very complex, you can try to select a representative sample yourself, following the guidelines provided in Appendix 3.

# OPTION 2 – NON-REPRESENTATIVE SAMPLE

You may also decide to use a non-representative sample to explore a range of safety topics with a number of individuals, as long as you accept the fact that what you observe reflects the opinions of the respondents and not the overall population.

Although the results obtained from a non-representative sample cannot be applied to the population as a whole, they can be used to explore certain perceptions. And although you will not be able to determine the relative prevalence of these perceptions, you can supplement the survey data with information obtained using other data collection methods, in order to generate hypotheses or obtain a more complete picture of the safety situation in the life setting. Since surveys with non-representative samples do not necessarily require a large number of respondents, they are often used to obtain additional information on perceptions expressed during data collection initiatives involving other methods.

If you decide to use a non-representative sample, you will nonetheless have to make sure that the sample takes into account your objectives, the characteristics of the target population, and the resources and time you have at your disposal for contacting the people who will make up the sample.

Exemple

# Example 4 — Non-representative sample

Focus groups and interviews with key informants revealed that seniors in the South District were afraid to go out after dark. To better understand this situation, it was decided that 50 seniors living in that sector would be interviewed individually. The questions dealt with places they avoided, their perception of disorder and incivility, the maintenance of public spaces, the quality of lighting, and so forth. The decision to interview 50 respondents was based on available resources. Unfortunately, however, this number did not constitute a large enough sample to be representative of the entire population of seniors living in the South District. Furthermore, it was impossible to choose a random sample since the survey team could not obtain a list of all the seniors in the area. Therefore, the results of the survey will not reflect the opinions of all the seniors living in the South District. Nevertheless, the opinions gathered will make it possible to better understand how seniors' perception of their life setting explains the fears they expressed during the focus groups and the interviews with key informants.

# Constructing a survey frame

You need a survey frame in order to access all of the people in your target population. Survey frames can take several forms, including a list of people's names, a list of telephone numbers or a list of the different geographic units (area frame) in the sector where the target population is located. The first type of frame gives you access to people directly, and individuals are selected from it using a sample design (see Appendix 3). With a telephone frame, you can identify the households you want to contact using their telephone numbers, while, with an area frame, you first have to define the geographic units you want to target (streets, neighbourhoods, city blocks, etc.) and then do a housing census in those units. With both telephone and area frames, you have to select the people who will be surveyed, according to a pre-determined strategy (see the box "Methods for determining who will answer the questionnaire").

# DESIGN

# **QUESTIONNAIRE AND RESPONSE METHOD**

Obviously, it is not easy to design a questionnaire from scratch. Therefore, it is usually more advantageous to use an existing questionnaire that has already been validated. Generally speaking, questionnaires are validated using one or more response methods tailored specifically to them.

The way in which you design a questionnaire or the type of questionnaire you choose, as well as the response method you use, will depend not only on the objectives of your survey but also on the resources available to you and on your target clientele. If you want to do a survey on personal safety, you may decide to use the *Survey questionnaire on personal safety and victimization in life settings*. Alternative versions of this questionnaire have been validated with two different response methods: a large-scale telephone survey and a self-completion survey of low-rental housing residents.

Other questionnaires can be found on the Web sites of research groups or agencies that are interested in safety issues. However, you have to make sure that the questionnaire you choose is suited to your objectives and available resources. In particular:

- You must ensure that the questionnaire takes into account the safety issues you want to explore.
- The questionnaire must be tailored to the situation in the life setting you want to study; for example, it must be written in such a way that it can be understood by the people being surveyed.
- The questionnaire must target a population that is similar to the one for which it was designed. In other words, if you want to survey adults, it is preferable not to choose a questionnaire designed for children or adolescents.
- The questionnaire must be suited to the response method you want to use (see the next section).
- It is highly recommended that you use a questionnaire that has been validated to make sure it is appropriate and really measures the concepts you want to explore.
- You also have to ensure that the questionnaire is pre-coded, i.e. that a code has been assigned to each possible answer. These codes will be needed when the answers are entered in a computerized database. Fortunately, when you use an existing, already validated questionnaire, it is very likely that it has been pre-coded.
- Once you have selected a questionnaire, it is important not to change it. Usually, the questions in a validated questionnaire have been tested to ensure they are understandable and do not elicit one response more than another. In addition, the questions are generally presented in a logical sequence so as not to influence the way in which a person responds. For instance, if you ask people what the main safety problems in their neighbourhood are after having asked them a series of questions about theft, their answer will probably be influenced by the previous questions.

<sup>7.</sup> See Survey on Personal Safety and Victimization in Life Settings - Questionnaires and Instructions for Using a Computerized Data Capture, Processing and Analysis Tool. This document is available on the Web site of the CRPSPC [www.crpspc.qc.ca].

The response method chosen for a questionnaire will have an impact on the response rate,<sup>8</sup> the respondent burden and the time and resources needed to conduct the survey. You must consider the following questions:

- How many people do you have to contact?
- Is the target population spread out over the study area or is it concentrated in one sector?
- Is the questionnaire long or short? Are most of the questions simple or complex? Do they need to be accompanied by figures (tables, pictures, maps, etc.)?
- How many people can take part in conducting the survey (interviewers, people in charge of capturing, processing and analyzing the data, etc.)?
- How much funding is being allocated to the survey?
- How much time do you have to do it in?

Table 1 presents the three most common response methods, along with their main advantages and disadvantages. Obviously, this list is not exhaustive. Moreover, the disadvantages described are not all insurmountable; in fact, a number of strategies exist for overcoming some of them. For example, recruiting volunteers can substantially reduce the cost of collecting data. In addition, as explained in the next section, good field preparation can boost response rates.

<sup>8.</sup> Percentage of people who complete the questionnaire relative to the number of people contacted. If you are working with a representative sample, the higher the response rate, the better.

Table 1 Advantages and disadvantages of three survey response methods

Response method	Advantages	Disadvantages
	<ul> <li>High response rate for the entire questionnaire or for certain questions (partial response rate).</li> </ul>	
FACE-TO-FACE	<ul> <li>The order in which participants answer questions can be controlled (e.g. participants cannot change their answer to Question 3 after reading Question 5).</li> <li>Skip patterns are followed.<sup>10</sup></li> </ul>	<ul> <li>This method is very expensive (interviewer travel time and travel costs) especially if samples are widely dispersed or large.</li> </ul>
	<ul> <li>If participants decide to stop answering, the entire questionnaire is not lost.</li> <li>Answers are spontaneous and participants cannot consult other people prior to answering.</li> </ul>	<ul> <li>Participants often respond less honestly because they may be concerned about giving "socially desirable" answers. They can thus bias the results.</li> </ul>
	<ul> <li>Interviewers can ask additional questions or request clarifications when answers are ambiguous.</li> <li>Questionnaires can include figures (maps, diagrams, etc.).</li> </ul>	<ul> <li>It can be hard to meet with people, particularly if they are not available during the day.</li> </ul>
	Less expensive than face-to-face interviews.	
BY TELEPHONE	<ul> <li>Higher response rate than with mail surveys (especially if you do field preparation and plan to make a large number of call-backs).</li> </ul>	<ul> <li>It can be hard to obtain phone numbers.</li> <li>It is impossible to survey people who do not have a residential line or who only have a cell phone.</li> </ul>
	<ul> <li>If participants decide to stop answering, the entire questionnaire is not lost.</li> </ul>	<ul> <li>Since people sometimes view telephone surveys as a marketing tool, they may become suspicious</li> </ul>
	<ul> <li>The order in which participants answer questions can be controlled.</li> </ul>	of the caller's intentions or refuse to answer the questions.
	<ul> <li>Skip patterns are followed.</li> </ul>	Questionnaires must be fairly short to ensure that
	<ul> <li>Interviewers can ask additional questions or request clarifications when answers are ambiguous.</li> </ul>	<ul><li>people do not stop answering.</li><li>Questions must be direct and simple.</li></ul>
	Inexpensive.	
BY MAIL	<ul> <li>Participants answer more honestly because they remain anonymous.</li> </ul>	<ul><li>People often forget to answer the questionnaire.</li><li>Response rates are usually very low.</li></ul>
	<ul> <li>Participants have all the time they need to answer the questionnaire.</li> </ul>	<ul> <li>It is impossible to control the order in which participants answer questions.</li> </ul>
NCLUDING E-MAIL)	<ul><li>Participants can think about their answers.</li><li>Questionnaires can include figures (maps,</li></ul>	<ul> <li>If participants decide to stop answering, the entire questionnaire is lost.</li> </ul>
	<ul><li>diagrams, etc.).</li><li>Questionnaires can be longer than with other response methods.</li></ul>	<ul> <li>It is impossible to ask participants to clarify answers.</li> </ul>

<sup>9.</sup> Skip patterns stem from skip questions, which ensure respondents do not answer questions that do not apply to them. Skip questions contain instructions, usually in the form of a short introductory phrase such as "Go to question...", next to a particular answer. For example, if part of a questionnaire targets homeowners, there will be a skip question for tenants at the beginning of that section, containing instructions for them to go on to the next section.

Once you have decided what type of sample, questionnaire and response method you will use, you must choose respondents. Regardless of whether or not you use a representative (probability) sample, you have to select individuals from the target population. For instance, if you want to survey people aged 50 to 75 in a particular borough, you must select a sample of individuals from that group rather than from the population of the municipality as a whole. The following box describes several methods for determining who will answer the questionnaire.

# METHODS FOR DETERMINING WHO WILL ANSWER THE QUESTIONNAIRE

# Option 1 - Representative sample of the target population

- □ If your survey targets all of the residents of a municipality, you can select your sample from the telephone directory by choosing one person in 10, 20 or 25, etc. This method, which consists in choosing every n<sup>th</sup> individual in a list, is called "systematic sampling". The interval to be used is determined by dividing the total number of individuals in the target group by the size of sample you need. For example, if the total population of the target group is 10 000 and you need a sample of 1 000, you will have to choose 1 person in 10. You then have to decide who will be the first to answer the survey. This person is chosen at random, using dice for example. If the dice roll six, you would start with the 6<sup>th</sup> person on the list and then choose the 16<sup>th</sup>, 26<sup>th</sup> and so forth. In short, this is an easy approach, as it involves distributing the questionnaire to every n<sup>th</sup> individual in a list, without ever changing the interval, and choosing the first respondent at random.
- ☐ You can also choose respondents by drawing lots. For instance, you can draw names by lot from the electoral list, up to the total sample you need. This is called simple random sampling.
- □ You can also generate a sample by choosing streets at random (e.g. by drawing lots) in your study area or by selecting all the even numbers on one street and all the odd numbers on the next and so forth, until you have covered the entire area\*.
- □ If your survey covers a large area that can be divided up easily (e.g. a municipality with several official neighbourhoods), you can choose neighbourhoods by lot and then select a random sample of households from those neighbourhoods. This is called multi-stage sampling. This method can be especially useful if, for example, you want to limit the amount of travelling that interviewers have to do (see the section on response methods)\*.

\* In both of these examples, the sample consists of households. In such cases, you have to decide which member of the household will answer the questionnaire. One of the simplest solutions is to ask which person has just celebrated his or her birthday or will be the next to celebrate his or her birthday in the current year. This is the person who will have to answer the questionnaire. The important thing is that you always use the same question to decide which member of the household will be the respondent.

□ If you have official statistics on the target population, you can also decide to survey a certain number of people in various groups defined by sex, age, place of residence and so forth. This ensures that all of the groups you want to survey are represented in the survey sample. This method can be particularly useful for comparing the answers given by different groups of people. To do this type of sampling, known as "stratified sampling", you must first divide the target population into the sub-groups you want to compare; for example, people aged 18 to 25, 26 to 35, 36 to 45, 46 to 55 and 56 and over. You then have to choose a sample at random, either by drawing lots for each sub-group or, if you have a list of all the members in each sub-group, by choosing every n<sup>th</sup> person. For instance, if you have a list of all the residents in each neighbourhood in the study area, you may decide to choose every 2<sup>nd</sup>, 5<sup>th</sup> or 10<sup>th</sup> person, etc. and use the same interval in selecting individuals from each sub-group. However, if some sub-groups are much smaller than others (e.g. there are far fewer people in the 18 to 25 sub-group), it might be a good idea to reduce the interval for this group so as to obtain a sufficient number of people for your sample.

# Option 2 - Non-representative sample of the target population

- □ You may also decide to use several different response methods for the questionnaire, depending on the category of person you are dealing with. For instance, you may use a telephone response method for people who are likely to be at home during the day (stay-at-home parents, seniors, etc.) and a mail response method for people who are less likely to be at home at that time.
- You can also have the questionnaire inserted into the newspaper of the neighbourhood, municipality or region under study. However, the questionnaire must clearly specify who is eligible to take part in the survey, by describing the characteristics of the target population.
- Another option is to have participants answer the survey online, by providing them with a Web site address via e-mail or notices posted in the newspaper or on bulletin boards in schools, recreation centres and so forth. However, before you decide to use this method, you must make sure that your target population has access to the Internet and knows how to use it.
- □ If the objective of the survey is to assess safety in a particular life setting (e.g. subway station, park), you can have volunteers hand out the questionnaire on site. This will enable you to connect with people who frequent the setting concerned.

# PREPARING AN ANALYSIS PLAN

The last step we suggest you take in planning your survey is to prepare an analysis plan that is tailored to what you will do with the information gathered.

If you decide to use the *Survey questionnaire on personal safety and victimization in life settings*, it comes with a document containing information on how to analyze the answers obtained with the questionnaire. If you choose another questionnaire, you will have to prepare your own analysis plan. To that end, you must have access to a list of the topics covered by the questionnaire (perception of safety and risk, crime, social cohesion, etc.) and of the questions associated with each of these topics. Below is a short example of the kind of table you can draw up using this type of list.

Example 5 — Table of survey topics and	associated questions	
Topics	Associated questions	
Perception of safety and assessment of risk	Q2, Q3, Q4	
Feeling of safety	Q1A, Q1B, Q3, Q4, Q5	
Social cohesion, social participation	Q6, Q7A, Q7B, Q8, Q9	

Based on this table, you have to think about the kind of analysis you want to do. In particular:

• Do you want to compare the answers by target population sub-group (by age group, gender group, etc.), by sector (neighbourhood, borough, etc.) or by problem (safety problem, type of crime, etc.)? It can be interesting, for instance, to determine if women's perception of safety is the same as that of men, if the safety problems mentioned by young adults differ from those mentioned by seniors, if the residents of one sector feel less safe than those of another, and so forth. Your analysis plan should enable you to make all the comparisons you want through cross-tabulation of questions (two questions per cross-tabulation). For example, if you want to compare the answers given by men with those of women, you have to decide which questions you will use for this purpose.

<sup>10.</sup> If you use the *Survey questionnaire on personal safety and victimization in life settings* and the accompanying data entry file, simple frequencies and comparisons by sex and age (three age groups) are generated automatically as the answers are entered.

# Example 6 - First example of cross-tabulation of variables<sup>11</sup>

CROSS-TABULATION OF THE TOPIC: Perception of safety and assessment of risk

WITH: Respondent characteristics

RESPONDENT CHARACTERISTICS		
Question code	Question	
[QO]	Neighbourhood where the respondent lives (neighbourhood A, neighbourhood C)	
[Q31]	Sex (male or female)	

	PERCEPTION OF SAFETY AND ASSESSMENT OF RISK		
	Question code	Question	
7	[Q2]	Change in the respondent's perception of safety over the past five years	
<b>→</b>	[Q3]	Perception of his or her life setting as being safe	
7	[Q4]	Feeling of not being safe in his or her life setting	
7	[Q2]	Change in the respondent's perception of safety over the past five years	
<b>→</b>	[Q3]	Perception of his or her life setting as being safe	
7	[Q4]	Feeling of not being safe in his or her life setting	



• In addition to comparisons by sub-group, sector and problem, your analysis plan may provide for other cross-tabulations that will enable you to better understand the perceptions, attitudes or behaviours of the people surveyed. For example, it might be interesting to see how many of the people who say they feel safe in their life setting adopt avoidance or protective behaviour (e.g. lock the doors to their house or car, avoid going out at night, avoid certain places considered not very safe) and to compare this number with the number of the people who say they do not feel safe in their life setting and who do not adopt such behaviour. You might also compare, for questions on social cohesion, the answers of people who say they feel safe in their life setting with those of people who say they do not feel safe. Such cross-tabulations may reveal that, for some people, their feeling of safety stems from the fact that they consider their life setting to be safe, while for others, it simply reflects the fact that they adopt protective or avoidance behaviour. For still others, social cohesion may be the determining factor.

<sup>11.</sup> Based on the Survey questionnaire on personal safety and victimization in life settings. To consult this questionnaire, see the document Survey on Personal Safety and Victimization in Life Settings - Questionnaires and Instructions for Using a Computerized Data Capture, Processing and Analysis Tool. This document is available on the Web site of the CRPSPC [www.crpspc.qc.ca].

# | Exemple | |

# Example 7 — Second example of cross-tabulation of variables $^{12}$

Cross-tabulation of: Perception of safety and assessment of risk

With: Social cohesion, social participation

SOCIAL COHESION, SOCIAL PARTICIPATION		
[SP]	Social participation	
[SC]	Social cohesion	

PERCEPTION OF SAFETY AND ASSESSMENT OF RISK		
[Q2]	Change in the respondent's perception of safety over the past five years	
[Q3]	Perception of his or her life setting as being safe	
[Q2]	Change in the respondent's perception of safety over the past five years	
[Q3]	Perception of his or her life setting as not being safe	

<sup>12.</sup> Ibid.

Checklist for designing a survey method		
Study area:	v	
□ Have you clearly defined the study area?  Comments	Yes —	N <sub>0</sub>
☐ Is the study area tailored to the objectives of the survey and available resources?  Comments	Yes	N <sub>0</sub>
Farget population:	_	
☐ Have you established the respondent criteria (characteristics of the target population)?  COMMENTS	Yes —	N <sub>0</sub>
☐ Are these criteria based on a good understanding of the life setting concerned (e.g. they take the general portrait of the setting into account)?  Comments	Yes	No O
☐ Are these criteria consistent with the objectives of the survey?  COMMENTS	Yes	No
Sample design:		
☐ Have you decided if the survey will be done using a probability sample?  COMMENTS	Yes	No O
□ Based on the objectives of the survey and available resources, have you decided on the size of the sample and the method that will be used to select it?  COMMENTS	Yes	N <sub>0</sub>
Questionnaire:		
☐ Have you chosen a questionnaire?  COMMENTS	Yes	N <sub>0</sub>
□ Does the questionnaire meet your needs (topics to be studied)?	Yes	No

Is the questionnaire suited to available resources and the response method selected?	Yes	No
COMMENTS  Has the questionnaire been validated and pre-coded?  COMMENTS	Yes	No
esponse method:		
Have you decided what method will be used to answer the questionnaire?  COMMENTS	Yes	No O
Is this method tailored to your objectives and available resources?  COMMENTS	Yes	No O
Is the response method compatible with the sampling method selected (random or non-random)?  COMMENTS	Yes	No
Have you taken into account the advantages and disadvantages of the method selected?  COMMENTS	Yes	No
Have you looked into any strategies for offsetting the disadvantages of the method selected (e.g. cost and response rate)?  COMMENTS	Yes	No
nalysis plan:		
Do you have an analysis plan for the questionnaire selected?  COMMENTS	Yes	No O
Does the analysis plan describe the comparisons and cross-tabulations of questions that will be made?  COMMENTS	Yes	No
of questions that will be made?	Yes -	_

## **Conducting surveys**

#### FIELD PREPARATION

Good field preparation can make it much easier to conduct a survey. The more informed people are about a survey in a given study area, the more receptive they will be. This in turn will probably make them more cooperative and more willing to answer the questionnaire.

A good starting point is to promote the survey. Presenting its objectives, introducing the people or organization in charge, explaining how the questionnaire will be answered and returned, and how this approach will protect respondent confidentiality are all things that will help to publicize the survey, reassure the population and perhaps encourage them to answer the questionnaire, thus boosting the response rate. It is also useful to remind potential respondents that the participation of each and every one of them is crucial to achieving the survey's objectives.

The way in which information is transmitted to the target population will depend on the context. You can use local newspapers, recruit volunteers from the target setting, do interviews on the radio, distribute leaflets to local businesses, and so forth. Knowledge of the life setting and a good imagination are key to deciding which methods will be most effective for contacting the target population.

#### **CHOOSING A RESPONSE METHOD**

There are two possible response methods: the respondents complete the questionnaire themselves or the interviewers fill it out.

#### **Completion by participants**

Survey costs stem primarily from the time and effort it takes to obtain answers to a questionnaire. Regardless of the response method selected, costs will be reduced if answers are obtained rapidly and, ideally, the first time the questionnaire is distributed. One way to maximize the response rate the first time round is to make sure that the questionnaire is short and is presented in an interesting way (whether in writing or orally). In addition, providing respondents with a detailed description of the survey (its objectives, the people or organization in charge, its anticipated effects, etc.), along with a commitment that they will remain anonymous, tends to reassure them and may even encourage them to answer the questionnaire.



#### The importance of transparency

Taking part in a survey involves revealing certain aspects of one's private life. Participants can even become guarded when faced with questions about sensitive issues such as safety, crime and victimization. Therefore, you have to provide respondents with clear information about the survey:

- Who initiated it and who is in charge of conducting it?
- What information is it designed to obtain?
- For what purpose?
- What effects is it expected to have?
- How will the information be used and how will it be protected to preserve the confidentiality of sources?

Being transparent will definitely help to win respondents' trust and thus increase the response rate.

#### **Completion by interviewers**

Obtaining answers to a questionnaire is a crucial part of a survey and the way you go about doing this can ultimately affect the quality of the results. You can ask a specialized firm to look after this task for you, but you will have to monitor the people or organization in charge to ensure the methodology is appropriate and the results are reliable.

If you decide to have in-house interviewers complete the questionnaire, it is important to make sure that they know and follow a few basic rules for obtaining good results. For example, they must always begin the survey by introducing themselves and providing a brief description of it (e.g. the name of the lead person or organization, the survey's objectives, anticipated effects, etc.). They must also explain what steps will be taken to

#### A few ethical questions...

Depending on the nature of the topics discussed, interviewers may hear about violent behaviour or criminal activities from people taking part in the survey. Therefore, the person or organization in charge of collecting the data must give some thought to these issues beforehand and decide how to deal with them. Moreover, that person or organization must discuss the approach that is to be followed with the interviewers before data collection begins so that the interviewers can stay calm if such situations arise. The safety of citizens, be they witnesses, victims or interviewers, must never be jeopardized during a safety diagnosis.<sup>14</sup>

protect participant confidentiality (see box above). As well, they must read all of the questions without rewording them and in the order in which they appear on the questionnaire.

<sup>13.</sup> Please refer to Appendix 6 of the *Safety Diagnosis Handbook* of the *Safety Diagnosis Tool Kit for Local Communities* to learn more about ethical considerations in safety diagnoses [www.crpspc.qc.ca].

MPLEMENTATION

In the case of telephone surveys, we suggest that you phone people a pre-determined number of times in order to boost the response rate. For example, you may decide to make two call-backs to people that you were unable to contact the first time round. Ideally, you should make the calls on different days and at different times of the day in order to increase the chances of getting in touch with people. Therefore, we recommend that you always indicate the day and time when each call is made.

#### **CHOOSING A RETURN METHOD FOR THE QUESTIONNAIRE**

If you have opted to have participants complete the questionnaire themselves, you have to decide how they will return it to you. There are a few things that you can do to make this easier for them. For example, if you distribute the questionnaire by mail, it is preferable to enclose a prepaid envelope. You can also offer participants alternatives, such as returning the questionnaire by fax or answering it online, which may in turn encourage them to respond. Lastly, it is important to clearly indicate the deadline for handing back the questionnaire so as ensure that it is returned within a reasonable amount of time. The deadline should be long enough to give respondents time to answer, but not so long that they forget.

You will probably have to issue reminders in order to encourage respondents to return their duly completed questionnaires, and thus boost the response rate. To that end, you can recontact them using the same method as when you first distributed the questionnaire or you can write an article in the local newspaper, place notices in strategic spots, and so forth. You can also increase the response rate by offering potential respondents incentives, such as tickets for a draw. Each respondent will keep a copy of the ticket and return the original along with the questionnaire. However, if you decide to offer incentives, you must ensure that you do not jeopardize respondent confidentiality. For instance, if you hand out tickets for a draw, the tickets should be physically separate from the questionnaire and not contain any information that would allow the completed questionnaires to be associated with particular respondents. In fact, in order to reassure respondents, the questionnaire should mention that the necessary precautions have been taken in this regard.

Checklist for conducting surveys		
Tield preparation		
Have you developed and implemented any field preparation strategies?  COMMENTS	Yes	N <sub>0</sub>
Are these strategies based on in-depth knowledge of the life setting and the target population?  Comments	Yes	N <sub>0</sub>
Response method		
Completion of questionnaire by respondents		
Have you developed and implemented strategies to maximize the response rate when the questionnaire is first distributed?  COMMENTS	Yes	N <sub>o</sub>
Have you properly introduced the survey by, for example, enclosing a letter containing a description of it (its objectives, the people in charge, methods for ensuring respondent confidentiality, etc.)?  COMMENTS	Yes	N <sub>o</sub>
Have you issued reminders?  COMMENTS	Yes	N <sub>0</sub>
Completion of questionnaire by interviewers		
If you have asked a survey firm to fill out the questionnaire, have you provided it with a clear explanation of your objectives and expectations?  COMMENTS	Yes	N <sub>o</sub>
If you have asked a survey firm to fill out the questionnaire, have you made plans to monitor the entire data collection phase?  COMMENTS	Yes	N <sub>0</sub>
If you have not asked a survey firm to fill out the questionnaire, have you made sure that all the interviewers you recruited know and will follow the basic rules for administering the questionnaire (description of the survey, formulation of questions, order of questions, ethical considerations, etc.)?  Comments	Yes	N <sub>o</sub>

☐ Have you decided how many reminders will be issued?  COMMENTS	Yes	No C
Have you issued the reminders at different times in order to maximize the response rate?  Comments	Yes	No C
Return of questionnaires	-	
☐ If the questionnaires are to be completed by respondents, have you chosen a return method?  COMMENTS	Yes	No C
Have you developed and implemented strategies for facilitating or encouraging the questionnaires' return (postage-paid envelopes, clear deadline, etc.)?  COMMENTS	Yes	No 🔾
COMMENTS	_	



## Processing and analyzing the data

The data gathered during a survey must be converted into usable information before it can be analyzed. To that end, it must be processed. This is a two-phase operation that involves capturing the data and then organizing it.

#### **CAPTURING THE DATA**

When survey interviews are computer-assisted, the answers to the questionnaire are entered directly into an electronic file while the questionnaire is being administered. When the interviews are not computer-assisted, the answers are written on a printout of the questionnaire and have to be transferred to a computer file later on. The file may be in Excel, Word, Access or another format and usually follows the structure of the questionnaire.

If you use the *Survey questionnaire on personal safety and victimization in life settings*, you will have access to an already existing data entry file.<sup>14</sup> However, should you decide to use another questionnaire,

#### A practical solution!

You can also hire a specialized firm to capture the data from the completed questionnaires. This can be a practical solution, especially if the deadline for your survey project is tight. To find out what resources are available in your community, contact your local university, researchers, or people who work regularly with statistical data. They will surely be able to refer you to the appropriate resources. Moreover, recruiting the services of a specialized firm will enable you to determine data capture costs quite precisely beforehand. You merely have to send the firm a non-completed copy of your questionnaire and it will be able to provide you with an estimate of how much it will cost to capture the information from each completed copy.

you will have to build your own file. The sample data entry table provided in Example 8 on the next page might be of help to you in this regard.

Obviously, illegible answers cannot be transferred to the data entry file. In fact, all questionnaires that have not been completed properly, that are illegible or that have been filled in by respondents who do not meet the pre-established selection criteria must be eliminated during the data capture phase. However, if more than half the answers on a questionnaire are legible and acceptable, you may capture them, but you must not attempt to make sense of the illegible ones and enter them in the data entry file. You must either leave the corresponding box empty or enter a code that corresponds to "no answer" (usually 9, 99, 999, etc.).



<sup>14.</sup> This file is available on the Web site of the Québec Safety Promotion and Crime Prevention Resource Centre/Centre québécois de ressources en promotion de la sécurité et en prévention de la criminalité [www.crpspc.qc.ca].

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		/

#### Example 8 — Sample data entry table

Question								
Respondent	Q1	Q2	Q3A	Q3B	Q4	Q5	Q6A	a
001 <sup>b</sup>	2	4	2	3	1	1	2	
002	3	<b>2</b> °	1	4	2	1	3	•••
003	2	2	3	3	1	2	2	
d			•••		•••	•••		

- a. And so forth, until all the questions are entered.
- b. A code must be assigned to each copy of the questionnaire or to each respondent and this code must be written here. It should also appear on the questionnaire.
- c. As explained earlier in regard to the questionnaire and the analysis plan, each answer choice must be identified by a simple numeric code (pre-coded questionnaire). This code must be entered in the data entry table so that the data can be organized and analyzed.
- d. Ideally, all respondents to a given questionnaire should be included in the same data entry file, as this will make it easier to process and analyze the data.

Good data capture is essential to the success of a survey for it has a determining impact on the data analysis phase and therefore the results of the survey. It is normal for some entry errors to occur, but obviously, the more numerous they are, the more inaccurate the survey's results will be. Therefore, it is important to pay attention to things that might increase the risk of errors. For example, you must make sure that the order of the questions in the data entry file is the same as in the questionnaire. It can also be useful to establish procedures for validating the data entry process. One solution is to limit the values that can be entered in the different boxes in the data entry table, for this will in turn limit the number of errors by making it impossible to accidentally enter the wrong answer. For instance, if certain boxes are reserved for answers with numeric codes, you can make it impossible to enter letters in those boxes. However, you will probably have to enlist the help of an expert for this purpose. To keep costs down, you should check to see if there is anyone with the necessary expertise among your team members or in schools or other organizations in your community.

Some questionnaires contain open-ended questions, or questions that require respondents to answer freely rather than to choose from among a number of set answers. For example, if you ask a person to say what safety problem he or she finds the most worrisome, the person will answer spontaneously based on the first problem that comes to mind. Therefore, open-ended questions can elicit a wide range of answers, and when the answers are captured, they must be faithfully transcribed. It should also be mentioned that analyzing open-ended questions is very time-consuming. Consequently, you should limit the number of questions of this type. Ideally, if you use open-ended questions, make sure that they will elicit short answers, as this will make it easier to analyze the information.

#### **ORGANIZING THE DATA**

Once the data have been captured, they must be organized in such a way that they can be analyzed. To that end, the data must be grouped according to what you want to learn, that is, according to what is indicated in your analysis plan (see the section "Preparing an analysis plan"). If you want your sample to be representative of the entire population, but you have not been able to fulfil the basic conditions in that regard (see Appendix 3 on how to select a probability sample that is representative of the population as a whole), you will have to ask a statistician to weight the data before you can start to analyze it.

#### **ANALYZING THE DATA**

You now have to group the data into specific categories in order to extract the results and to identify and classify the information that might be useful for developing a portrait of safety in your study area. If applicable, this information can be added to that gathered with other methods (focus groups, key informants, documentary research, etc.), for the purpose of identifying key findings and related problems (see the *Safety Diagnosis Handbook*).

Various statistical methods can be used to summarize and gain a better understanding of quantitative data. In particular, these methods can be used to determine:

- proportions, such as the proportion of respondents who said their neighbourhood was not very safe or not at all safe;
- averages, such as the average age of victims of conjugal violence in a particular municipality;
- the distribution<sup>15</sup> of values for certain variables, such as the age distribution of victims of intimidation in an elementary school;
- associations between two variables, such as the level of insecurity reported by respondents in different age groups or the rate of breaking and entering in each municipality of an RCM.

You can start by treating the data in a simply descriptive manner. Basically, this involves generating frequency or cross-tabulation tables. Frequency tables reveal the distribution of cases for a particular variable (Example 9), with the information being expressed in numbers or percentages. Cross-tabulation tables illustrate associations between two different variables (Example 10).



<sup>15.</sup> To determine the distribution of values for a specific variable, you must classify all of values associated with that variable. For example, to determine the age distribution of intimidation victims in an elementary school, enter the age of each of the victims interviewed and then classify all of these ages, or values, from the lowest to the highest.

Example 9 - Distribution of neighbourhood	I safety levels as perceived by adults
aged 18 and over	

Perceived level of safety	Code	Number	%
Very safe	1	179	50.9
Fairly safe	2	90	25.6
Not very safe	3	60	17.0
Not at all safe	4	20	5.7
Refusal or DK	5	3	0.9
TOTAL		352	100

Example 10 — Percentage distribution, according to age class, of neighbourhood safety levels as perceived by adults aged 18 and over

Perceived level of safety	Age class			
	18-39	40-59	60 et +	
Very safe or fairly safe	86.2%	82.9%	67.2%	
Not very safe or not at all safe	13.8%	17.1%	32.8%	
TOTAL	100.0%	100.0%	100.0%	

In cross-tabulation tables like the one in Example 10, the first question that must be asked is whether the differences observed between the values in the sample are a matter of chance (sample bias) or a reflection of the actual situation in the study area as experienced by the population as a whole. For example, it might be asked whether there are really more people in the 60 and over age group who do not feel very safe than there are in the other age groups. You can answer this question through statistical tests provided you have used a representative sample (see the section "Developing a sample design"). However, we strongly recommend that you enlist the services of a statistician for this purpose. He or she will be able to determine (with a margin of error of no more than 5%) which differences truly reflect reality (statistically significant differences). But even when a difference has been shown to be statistically significant, you have to decide whether it is of any real interest to the safety diagnosis. In Example 10, even though there is a significant difference in perceived safety levels between the 18 to 39 years olds and the 40 to 59 year olds, it is of very limited interest for the safety diagnosis.

[Sample ]

Differences that are not significant should of course be accorded less importance. But they can still be taken into account by at least mentioning that they might reflect trends if they correspond to differences between the perceptions of people who are truly familiar with the life setting concerned. It might also be pointed out that these non-statistically significant differences are probably due to the fact that the sample size is too small.

Depending on your needs, the results of the data analysis may be illustrated with charts or figures. In the case of complex analyses, it can be a good idea to enlist the help of someone with experience in quantitative analysis. If you want to learn more about this type of analysis, please consult the references suggested at the end of this guide.

Once you have finished analyzing the data, you must, as will be explained in the next section, extract the information that seems to be the most useful for developing a portrait of safety in your study area, taking into account the objectives of your survey.

#### **Extracting meaningful information**

At this point, you have generated several results in the form of numbers, rates or proportions that can be presented in tables, charts or other figures. Moreover, you may even have been able to provide an interpretation. But if not, you can simply list various conclusions based on your tables, charts or figures in order to highlight relevant information. For example, an analysis of Example 9 leads to the conclusion that over 20% of the population aged 18 and over feels that their neighbourhood is not very safety or not at all safe. Example 10, for its part, reveals that people aged 60 and over feel less safe than younger people do. 17

In other words, the results obtained through statistical analyses will enable you to draw up a list of meaningful pieces of information. And this information should reflect your analysis plan. The distinctions drawn according to population sub-group, sector, problem and so forth and the groupings made (comparisons and cross-tabulation of questions) will determine to a large extent what information you will be able to extract. Example 11a on the next page presents several pieces of meaningful information derived from a fictitious survey. It indicates not only the safety topic but also the place and clientele concerned by each piece of meaningful information.



<sup>16.</sup> In this example, we assume that the data were gathered from a truly representative sample of the population. Otherwise, we would have used "respondents" rather than "population" in the interpretation statement.

<sup>17.</sup> In this example, we also assume that the data were gathered from a truly representative sample of the population and that a test was run to see whether the differences were significant.

## Example 11a — Meaningful information derived from a fictitious survey on personal safety and victimization in a life setting (Ss)

Meaningful information	Торіс	Clientele	Place
80% of respondents who answered the question on the safety problem that worried them the most mentioned a problem related to road safety. [Ss]	Road safety	General population	Municipality
17% of respondents said that vandalism problems were fairly requent or very frequent in their neighbourhood. The problem seems to be particularly troublesome in the South District, a neighbourhood mentioned by 30% of respondents. [Ss]	Disorder	General population	South District
Vandalism is the most frequently mentioned disorder problem in the South District. [Ss]	Disorder	General population	South District
Disorder problems related to the sale or use of drugs were said to be fairly frequent or very frequent by 9% of respondents in the South District compared to 3%, 1.4% and 0.8% of respondents in the three other neighbourhoods covered by the survey. [Ss]	Disorder	General population	South District
51% of people aged 65 and over said that they never open their door to strangers. [Ss]	Feeling of safety	Seniors	Municipality
21% of women in the South District said that they often do not feel safe in their life setting. A much lower proportion (less than 10%) of men and women in the other neighbourhoods mentioned this problem. [Ss]	Feeling of safety	Women	Municipality
55% of people over age 65 said that they avoided certain places or safety reasons. The proportion was only 14% for the two other age groups included in the survey. [Ss]	Feeling of safety	Seniors	Municipality
Of the places seniors say they avoid, the park in the South District was mentioned most often (48% of mentions). [Ss]	Feeling of safety	Seniors	South District/Park
% of people in the South District said they have been a victim f physical or verbal aggression in a conjugal context compared with 1.5% of people in the municipality as a whole. [Ss]	Conjugal violence	General population	South District
% of the population in the North District (including the lake ector) said they have been a victim of breaking and entering n the past year. [Ss]	Theft	General population	North District
17% of people aged 65 and over said that behaviour by young people or groups of young people made them feel threatened or unsafe. The proportion was only 5% for the two other age groups included in the survey. [Ss]	Feeling of safety	Seniors	Municipality

#### Analyzing meaningful information in order to identify key findings

Key findings reflect important realities that should be singled out. The importance of these realities derives from their frequency (the number of times they occur and their repetitive nature or the number of times people mention them), the perceived seriousness of their consequences, the fact that they represent a trend (e.g. an ever-growing problem), their unusual nature and so forth. When several pieces of meaningful information are linked to the same topic, population or place, it is often a good idea to summarize them in one key findings statement. A key findings statement can be formulated in different ways, referring to the When? What? Where? Who? or How? For instance, Example 11b on the next page organizes by topic the meaningful information shown in Example 11a and presents key findings statements reflecting one or more pieces of meaningful information tied to a particular topic, population and place. Note that some of these statements are based on a single piece of meaningful information (nos. ②, ③, ⑤, ⑥ and ⑦) while others are based on several (nos. ① and ④).

Formulating key findings statements requires the ability to synthesize information, as well as good judgment and in-depth knowledge of the life setting concerned. Therefore, it can be useful to enlist the participation of several people. Ultimately, the key findings that emerge from surveys must be added to any other key findings identified with other data collection techniques during the safety diagnosis. Transversal analysis of all the key findings will enable you to highlight the main problems that should be singled out in the diagnosis (see the section "Take stock of crime and safety in the life setting" in the *Safety Diagnosis Handbook*).

Example 11b —	Key findings derived from a fictitious survey on personal safety
	and victimization in a life setting

Meaningful information	Topic	Clientele	Place	Key findings	
17% of respondents said that vandalism problems were fairly frequent or very frequent in their neighbourhood. The problem seems to be particularly troublesome in the South District. [Ss]	Disorder	General population	South District	◆ Disorder in the South	
Vandalism is the most frequently mentioned disorder problem in the South District. [Ss]	Disorder	General population	South District	District, mainly in the form of vandalism and the sale	
Disorder problems related to the sale or use of drugs were said to be fairly frequent or very frequent by 9% of respondents in the South District compared to 3%, 1.4% and 0.8% of respondents in the three other neighbourhoods covered by the survey. [Ss]	Disorder	General population	South District	or use of drugs in public places. [Ss]	



Exemple

Meaningful information	Topic	Clientele	Place	Key findings	
80% of respondents who answered the question on the safety problem that worried them the most mentioned a problem related to road safety. [Ss]	Road safety	General population	Municipality	Road safety: the problem that gives rise to the most concern among the population of the municipality. [Ss]	
21% of women in the South District said that they often do not feel safe in their life setting. A much lower proportion (less than 10%) of men and women in the other neighbourhoods mentioned this problem [Ss]	Feeling of safety	Women	Municipality	High rate of insecurity among women in the South District. [Ss]	
51% of people aged 65 and over said that they never open their door to strangers. [Ss]	Feeling of safety	Seniors	Municipality		
55% of people over age 65 said that they avoided certain places for safety reasons. The proportion was only 14% for the two other age groups included in the survey. [Ss]	Feeling of safety	Seniors	Municipality	High rate of insecurity among seniors in the municipality, as shown by protective behaviour and mistrust of young people. [Ss]	
17% of people age 65 and over said that behaviour by young people or groups of young people made them feel threatened or unsafe. The proportion was only 5% for the two other age groups included in the survey. [Ss]	Feeling of safety	Seniors	Municipality		
Of the places seniors say they avoid, the park in the South District was mentioned most often (48% of mentions). [Ss]	Feeling of safety	Seniors	South District/ Park	• Feeling of insecurity among seniors when they are in the park in the South District. [Ss]	
4% of people in the South District said they have been a victim of physical or verbal aggression in a conjugal context compared with 1.5% of people in the municipality as a whole. [Ss]	Conjugal violence	General population	South District	• Problem of conjugal violence in the South District. [Ss]	
5% of the population in the North District (including the lake sector) said they have been a victim of breaking and entering in the past year. [Ss]	Theft	General population	North District	Problem of theft during breaking and enterings in secondary residences in the North District. [Ss]	

#### PRESENTING THE RESULTS

Before presenting the results of your survey, you must ask yourself how they will be incorporated, where applicable, into all of the information gathered for the purposes of your safety diagnosis. For example, if you have collected data with other methods, you have to decide beforehand if the survey results will be presented separately from that information or if they will be presented at the same time so as to paint a complete portrait of the situation. Presenting all of the results together has the advantage of avoiding contradictory messages, which can be a particularly important aspect to consider in communications with the general public.

The way in which you present your results will depend primarily on your audience and their expectations. Knowing your audience will enable you to decide what information is most relevant to them, and to present it in a way they find understandable. To determine the best way to present your survey's results, you might find it helpful to consider the following questions:

- Has an agreement been reached on what information is to be presented (deliverables) at the end of the survey?
- What message do you want to convey to your audience in regard to the survey's results? This message will probably be linked to the objectives of the survey, i.e. why it was undertaken in the first place.
- What do you have to do to make the message you convey to your audience understandable and credible? A detailed report is not always the best way to present the results. In some cases, it is more effective to present a summary of the survey's key findings or

to give a talk along with a slide presentation. Both of these methods also have the advantage of being much more "energy-efficient"!

• How much time do you have to present the results? If you have a tight deadline, you will probably have to give a shorter and less detailed presentation.

In fact, you may have to present different results, in different ways, to different people or groups. Tailoring the presentation of your results to your audience will definitely help to ensure that the survey achieves the goals you established at the outset. For more information on the dissemination and validation of results, please refer to the *Safety Diagnosis Handbook* of the *Safety Diagnosis Tool Kit for Local Communities*.

It is also important to think about how you will share the survey results with the respondents. Ideally, you should provide them with a brief summary of the project, a short description of how the survey was conducted (e.g. how many questionnaires were sent out and filled in) and an overview of the results. The way you proceed will depend on the context, the size of the study area and the number of respondents. If the number of respondents was limited, you can send a letter to each one. Otherwise, you can publish a short article in a local or regional newspaper, do an interview on the radio, post notices on the bulletin boards of local community and recreational centres. You might also take advantage of this opportunity to say what you plan to do after the survey; for example, explore certain aspects in greater depth using other data collection methods or proceed with the development of an action plan.



Checklist for processing and analyzing the data		
Capturing and processing the data		
Have you considered the possibility of hiring a specialized firm to capture and process the data?  Comments	Yes	No
☐ If the data will not be captured by a specialized firm, do you have a data entry file that follows the structure of the questionnaire?  COMMENTS	Yes	No
If respondents completed the questionnaire themselves, have you eliminated all illegible or improperly completed questionnaires and those filled in by respondents who do not meet the necessary criteria?  Comments	Yes	No
Have you limited potential data entry errors as much as possible (e.g. by limiting the types of values that can be entered in the entry file?  COMMENTS	Yes	No
☐ Once the data have been entered, will they be organized as stipulated in the analysis plan?  COMMENTS	Yes	No
Analyzing the information		
Have you asked experts to do statistical analyses of the data, at least in the case of the more complex analyses?  Comments	Yes	No
Have you done the simpler statistical analyses in house (proportions, averages, distributions, associations, etc.) in order to generate results pertaining to the safety of the study area?  Comments	Yes	No
Have you illustrated these results with charts, tables, figures, etc. to make them easier to understand?  COMMENTS	Yes	No C
Taking the survey's objectives into account, have you extracted the most meaningful information for the purposes of developing a safety portrait?  COMMENTS	Yes	No C

Have you decided on the best way to present the results based on 1) your audience, 2) the message you want to convey and 3) the time and resources available to you?  Comments	Yes	N <sub>o</sub>
Have you thanked the respondents and shared the results of the survey with them by providing them with a brief summary of the project, a short description of how the survey was conducted and an overview of the results?  COMMENTS	Yes	N₀ ○
	_	



## References

W. Paul Vogt. *Dictionary of Statistics & Methodology: A Nontechnical Guide for the Social Sciences*, 2<sup>nd</sup> edition, Thousand Oaks, London and New Delhi, SAGE Publications, 1999.

Christel A. Woodward, Larry W. Chambers and Kimberly D. Smith. *Guide to Improved Data Collection in Health and Health Care Services*, 1<sup>st</sup> edition, Ottawa, Canadian Public Health Association, 1982.



U.S. Department of Health and Human Services and SAMHSA's National Clearinghouse for Alcohol & Drug Information. "Communities that Care". [http://ncadi.samhsa.gov/features/ctc/resources.aspx].

## Appendix 1

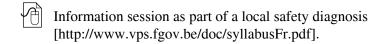
Suggested additional reading

## Suggested additional reading

Colin, M., P. Lavoie, M. Delisle, C. Montreuil and G. Payette. *Initiation aux méthodes quantitatives en sciences humaines*, 2<sup>nd</sup> edition, Montréal, Gaëtan Morin Éditeur, 1995.

Gauthier, B. et al. *Recherche sociale : de la problématique à la collecte des données*, 4<sup>th</sup> edition, Québec, Presses de l'Université du Québec, 2003, 632 p.

Satin, A. and W. Shastry. *Statistical Sampling: A Non-Mathematical Guide*, 2<sup>nd</sup> edition, Statistics Canada, Catalogue No. 12-602E, 1993.

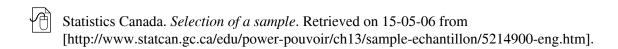


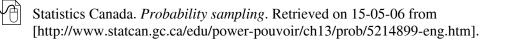
Ottawa Police Service, *You Can Do It. A Practical Tool Kit to Evaluating Police and Community Crime Prevention Programs*, 2001.

[http://www.ottawapolice.ca/en/resources/publications/pdf/you\_can\_do\_it\_evaluation\_toolkit.pdf]

#### TO LEARN MORE ABOUT SELECTING SAMPLES:

Statistics Canada, Survey Methods and Practices, Catalogue No. 12-587-XPE, 2003.







Appendix 2

Sample budget worksheet

# APPENDIX 2

## Sample budget worksheet

Activity	Necessary resources	Salary costs	Purchase of material and equipment	Workspace costs	Voluntary contributions (name and contact
		(\$)	(\$)	(\$)	information)
Coordination	Specialized resources				
	Human resources				
	Printed material (cover letters, etc.)				
Field preparation	Notices and announcements (newspapers, radio, etc.)				
	Recruitment				
	Interviewer training				
	Human resources (interviewers, etc.)				
	Translation				
	Photocopies				
Data collection by mail	Mailing materials (envelopes, stamps)				
	Reminders sent by mail				
	Return of questionnaires (postage-paid envelopes, fax machines, etc.)				
	Survey frame				
	Human resources (interviewers, etc.)				
	Telephone equipment (telephones, long-distance telephone lines, etc.)				
Data collection by telephone	Interpreters				
	Survey frame				
	Specialized human resources (psychologist, etc.)				

Activity	Necessary resources	Salary costs (S)	Purchase of material and equipment (S)	Workspace costs (\$)	Voluntary contributions (name and contact information)
	Human resources (interviewers, etc.)				
Data collection	Travel (vehicles, gas, public transit tickets, etc.)				
in person	Reminders (human resources and travel)				
	Survey frame				
	Human resources				
Data capture, processing and analysis	Computers and software				
unu unurysis	Specialized resources (statistical analyses, computing, etc.)				
	Printed material				
Presentation of results	Human resources				
	Travel (if applicable)				

## Appendix 3

Selection of a probability sample representative of the population

## APPENDIX 3

## Selection of a probability sample representative of the population

#### **PURPOSE**

To ensure that what you observe among respondents from a given population actually reflects what you would have observed had you surveyed all of the members of that population.

#### **PRINCIPLES**

#### A. Everyone must have an equal chance of being included in the sample.

- Randomization strategy You must ensure that the people included in the sample are selected by chance and thus without any influence on the part of the investigator (see the section on sampling methods). By so doing, the selection of one person for the sample will not depend in any way on the selection of any of the other people. In view of this approach, the units making up a probability sample are called "independent sampling units".
- Sampling strategies A simple sampling strategy is to ensure that the probability of a person being included in the sample is the same for everyone in the target population. To that end, you have to obtain a list of all the individuals in the population under study (e.g. all people aged 18 and over living in a particular city or borough). Ideally, you should then choose the people for the sample at random from the list. That said, it is not always possible to apply this strategy, as it is often hard to obtain a complete list of all the people in the target population. Other strategies must then be used. One possible solution is to choose your sample from the telephone directory. However, people whose names are not listed in the directory have no chance of being selected, while people who have two telephone numbers have a greater chance of being selected than people with only one number. In addition, if the sample is to include only one person per telephone number, people who live alone will be more likely to be selected than people who live in a household with several people. This type of sampling is referred to as unequal probability sampling.

It is also important to note that, for practical or economic reasons, researchers often want to survey several people in the same group: e.g. all adults aged 18 and over living in the same household. However, two problems arise in such situations. First, the sampling unit is no longer the individual but the group, and the probability of being selected for the sample depends on whether or not the person belongs to that group. Second, the answers given by one member of the group are not independent from those given by the other members since they all share certain experiences and the same life setting.

When the probability of being included in a sample is not equal for everyone or if the answers given by different individuals are not independent of each other, certain strategies must be applied to offset the sampling error such situations entail. We strongly recommend that you ask experts to apply these strategies for you.

- B. There must be a sufficient number of people in the sample (sample size), and the number must be calculated on the basis of certain parameters:
  - · Level of accuracy desired for the measurements obtained, i.e. the margin of error that you are prepared to tolerate in your results. Generally speaking, the margin of error must not exceed a certain value, which depends not only on the survey's estimates but also on the magnitude of the estimates' variance. Usually, a coefficient of variation (CV) of 15% at the most is used and this translates into a margin of error of 30% around the measurements obtained, for a confidence level of 95% (see the next paragraph). For example, the margin of error for an estimate that 70% of the population feels fairly safe in their neighbourhood would be + or -21% (i.e. about 30% of 70%), while that for an estimate that 5% of the population have been victims of breaking and entering would be + or -1.5% (i.e. about 30% of 5%). The table on the next page shows how to calculate sample size (n) using two different answer frequencies: 5% and 10%. If you use the size calculated with a frequency rate of 5% and you obtain frequencies of less than 5% for certain answers to certain questions, you will have to exercise caution in interpreting the results for those questions. This is because a frequency of less than 5% means that the probability of there being no correspondence between the results obtained for those questions and the results that would have been obtained had the entire target population been surveyed exceeds the margin of error of 30% (or a CV of 15%) that you were prepared to tolerate when you calculated the sample size.
  - Desired confidence level, or degree to which the results obtained correspond to the actual situation of the population. This level is usually set at 95%, which means that the chance of making a mistake, i.e. the chance that the true value does not fall within the margin of error, is 1 in 20 (5/100).
  - Size of the target population. As shown by the table, this factor is particularly important when the overall target population is small. For example, with a target population of 1 000, the sample must consist of 458 people, or nearly 1 person in 2 (sampling fraction of 45.8%). In comparison, with a target population of 100 000, the sample must comprise 779 people, or less than 1 person in 10 (sampling fraction of 7.8%).
  - Frequency with which certain answers are anticipated for certain questions. For example, this could be the frequency with which people are expected to say, in response to a particular question, that they feel fairly safe in their neighbourhood or that they have been victims of a breaking and entering. However, the anticipated frequency of particular answers will vary depending on the phenomenon being studied and the characteristics of the target population. For instance, the proportion of people in Montréal who will say they feel fairly safe will most probably be different from that in Jerusalem. It should also be noted that the anticipated frequency of certain answers to certain questions will determine the size of sample required. Accordingly, the smaller the frequency is or the closer it is to 100%, the higher the number of people that will be required for the sample. Therefore, to determine the size of the sample you need, you must first determine which question will have to be answered in a certain way by the largest number of people. Your sample will then be powerful enough to generate estimates with a high degree of accuracy.

The table on the next page shows the approximate number of people that have to be included in a sample based on three of the four parameters above. According to this table, if you wish to obtain a coefficient of variation of 15%, which corresponds to a margin of error of 30% around the survey estimates at a confidence level of 95%, your sample will have to include between 286 and 838 people, depending on the size of the target population and the frequency with which certain answers are anticipated for certain questions (5% to 10%). Although it is important to bear these figures in mind when you plan a survey, we suggest that you consult a statistician in order to calculate the exact size of sample you need. For this purpose, you must provide the statistician with your validated questionnaire as well as the frequencies of answers to each question in the past.

Note that the sample sizes indicated in the following table correspond to the number of respondents, i.e. the number of people who will complete the survey questionnaire. If you anticipate, for example, that only one person in two will agree to answer the questionnaire (response rate of 50%), you will have to contact twice as many people to obtain the desired sample size.

Table 2 Approximate number of people to be included in your sample based on three of the parameters mentioned above

Parameters			Results		
Target population (N)	CV	Anticipated frequency of answers	Sample size (n)	Margin of error	Sampling fraction
1 000	15%	5%	458	1.47%	45.8%
2 000	15%	5%	594	1.47%	29.7%
3 000	15%	5%	659	1.47%	22.0%
4 000	15%	5%	698	1.47%	17.5%
5 000	15%	5%	723	1.47%	14.5%
10 000	15%	5%	779	1.47%	7.8%
20 000	15%	5%	811	1.47%	4.1%
25 000	15%	5%	817	1.47%	3.3%
50 000	15%	5%	831	1.47%	1.7%
100 000	15%	5%	838	1.47%	0.8%
1 000	15%	10%	286	2.94%	28.6%
2 000	15%	10%	334	2.94%	16.7%
3 000	15%	10%	353	2.94%	11.8%
4 000	15%	10%	364	2.94%	9.1%
5 000	15%	10%	371	2.94%	7.4%
10 000	15%	10%	385	2.94%	3.9%
20 000	15%	10%	393	2.94%	2.0%
25 000	15%	10%	394	2.94%	1.6%
50 000	15%	10%	397	2.94%	0.8%
100 000	15%	10%	399	2.94%	0.4%



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