

BCIRPU



INJURY PREVENTION
PROGRAM EVALUATION
MANUAL

The British Columbia Injury Research and Prevention Unit (BCIRPU) directed by Dr. Parminder Raina, was established by the Minister of Health and the Minister's Injury Prevention Advisory Committee in August 1997. BCIRPU opened its doors in January 1998. It is housed within the Centre for Community Health & Health Evaluation Research (CCHHER) at Children's & Women's Health Centre of British Columbia and supported by BC Research Institute for Children's & Women's Health.

Author: *Sharon Storoschuk, M.Sc., M.P.H., Evaluation Consultant*

Acknowledgements: The production of this document has been made possible by a financial contribution from the Office for Injury Prevention, BC Ministry of Health and Ministry Responsible for Seniors and the support of the Centre for Community Health & Health Evaluation Research, and the BC's Children's Hospital Foundation. We are grateful to Andria Scanlan, Mariana Brussoni and Kevin Walsh for their diligent editing and desktop publishing work.

BC Injury Research and Prevention Unit

L408-4480 Oak Street,
Vancouver, BC. V6H 3V4
Email: injury@cw.bc.ca
Phone: (604) 875-3776 Fax: (604) 875-3569
Webpage: www.injuryresearch.bc.ca

Reproduction, in its original form, is permitted for background use for private study, educational instruction and research, provided appropriate credit is given to the BC Injury Research and Prevention Unit. Citation in editorial copy, for newsprint, radio and television is permitted. The material may not be reproduced for commercial use or profit, promotion, resale, or publication in whole or in part without written permission from the BC Injury Research and Prevention Unit.

July, 2001



BRITISH COLUMBIA
*Research Institute For
Children's & Women's Health*



Table of Contents

HOW TO USE THIS MANUAL	7
Questions Answered by Evaluation	9
<i>Did we do what we said we would do?</i>	9
PART 1: EVALUATING INJURY PREVENTION PROGRAMS	9
1. OVERVIEW OF THE EVALUATION PROCESS	9
<i>What did we learn about what worked and what didn't work?</i>	10
<i>What difference did it make that we did this work?</i>	10
<i>What could we do differently?</i>	10
Who should be involved in planning an evaluation?	11
<i>Who should use the findings?</i>	11
<i>How will they use the results?</i>	11
2. EVALUATION IN THE CONTEXT OF PROGRAM PLANNING	13
3. TYPES OF EVALUATION	15
Process evaluation	15
Outcome evaluation	16
Process and Outcome Evaluation	19
PART 2: THE FIVE STEPS FOR PROGRAM EVALUATION	21
STEP 1 CLARIFY PROGRAM GOALS AND OBJECTIVES	22
What is a goal?	22
What is an objective?	22
How do you write clear and concise program objectives?	23
STEP 2 DESIGN AN EVALUATION PLAN	29
Who is your target population and how will you access them?	29
What activities will you do to meet your objectives?	29
What is the timeline for your evaluation?	30
What resources do you have available?	32
STEP 3 DEVELOP A DATA COLLECTION PLAN	37
What data needs to be collected?	37
Methods of Data Collection	40
1. Quantitative Methods	40
1) Surveys	41
<i>What are the best uses of a survey?</i>	41
<i>Tips for using a survey:</i>	41
<i>When will the survey happen?</i>	43
<i>How will you administer your survey?</i>	44
<i>Tips for administering the survey:</i>	45
<i>Who will conduct the survey?</i>	45
<i>Types of Questions</i>	46
<i>Using Standardized Surveys</i>	49
<i>What is baseline or benchmark data?</i>	49
2) Counting System	50

<i>What is the best use of a counting system?</i>	50
<i>Tips to using a counting system:</i>	50
3) Document or Record Review	50
<i>What is the best use of a document review?</i>	51
<i>Tips to using document reviews:</i>	51
<i>When will the data be collected?</i>	51
<i>Who will collect the data?</i>	51
2. Qualitative Methods	52
1) Focus Groups	53
<i>What are the best uses of a focus group?</i>	53
<i>Tips for using a focus group:</i>	53
<i>When will the data be collected?</i>	54
<i>Who will collect the data?</i>	54
2) Personal Interviews	55
<i>What are the best uses of personal interviews?</i>	55
<i>Tips for using personal interviews:</i>	56
<i>When will the data be collected?</i>	56
<i>Who will collect the data?</i>	56
3) Observations	56
<i>What are the best uses of observations?</i>	57
<i>Tips for using observations:</i>	57
<i>When will the data be collected?</i>	57
<i>Who will collect the data?</i>	57
4) Case Studies	58
<i>The best use of case studies is:</i>	58
<i>Tips for using case studies:</i>	58
STEP 4 ANALYZE AND INTERPRET YOUR DATA	62
Analyzing Quantitative Data	64
How do you interpret your results?	66
Other Factors that can Influence your Results	72
<i>History</i>	72
<i>Maturation</i>	72
<i>Attrition</i>	73
Analyzing Qualitative Data	73
STEP 5 USE AND REPORT THE EVALUATION FINDINGS	75
Who is the audience for your report?	76
What is the purpose of an evaluation report?	77
How can you present your report?	77
What goes into a written evaluation report?	80
What goes into a presentation?	86
What do you do now?	87
APPENDIX 1: GLOSSARY: DEFINITION OF TERMS	91
APPENDIX 2: INJURY PROGRAM EXAMPLE	94
APPENDIX 3: HIRING AN OUTSIDE EVALUATOR	107
APPENDIX 4: GUIDELINES FOR DESIGNING A SURVEY INSTRUMENT	109
APPENDIX 5: ANSWERS TO EXERCISE	110
APPENDIX 6: BIBLIOGRAPHY	112
APPENDIX 7: BLANK WORKSHEETS	114

HOW TO USE THIS MANUAL

This manual was created to make evaluation a user-friendly process. Many of the ideas and concepts are not original but compiled and adapted from existing sources (see Bibliography).

The overall goal is to assist communities in British Columbia in evaluating their injury prevention programs. This manual will provide you with information about the evaluation process so that you will have a better understanding of what evaluation is all about. It is designed as a tool to develop your own evaluation plan for your injury prevention program.

The following objectives were developed:

After reading this manual you will be able to:

- Write program objectives that are *Specific, Measurable, Action-oriented, Realistic and Time-limited*.
- Identify the five steps of program evaluation.
- Evaluate your injury prevention program.

The manual takes you step-by-step through the design and implementation process of an evaluation. It provides definitions for commonly used evaluation terms and concepts and it provides useful examples, worksheets and exercises. Extra worksheets are available in the appendix to be photocopied and used for planning this and your next evaluation. By the end of the manual, you will have a complete evaluation plan for your program.

The appendices contain an example program and evaluation, a glossary of terms, a bibliography of reference materials that were used in developing this manual, and additional information you may require in the future. You may wish to refer to these manuals and books for further information or for examples of different types of evaluations and how they are carried out.

Evaluation.

The process of gathering information or data that provides evidence that a program is meeting its goals and objectives. Based on this information, individuals or groups can judge or make an assessment about a program and can make decisions about how a program can be improved. Evaluation can also mean estimating or forming an opinion based on data.

Evaluation Plan.

A document that outlines what you will be evaluating, the type of evaluation (i.e., process and/or outcome), the target population, available resources, the steps in carrying-out the study, the tools used for collecting information, timelines, and how the findings will be used.

1. OVERVIEW OF THE EVALUATION PROCESS

Evaluation is the process of finding out if your program worked and if not, why. It provides practical information so that you can design, carry out, and use the results of your evaluation in a way that will improve your program.

Questions Answered by Evaluation

Undertaking an evaluation allows program developers to answer the following fundamental questions about its programs or services:

What? *Did we do what we said we would do?*

Why? *What did we learn about what worked and what didn't work?*

So What? *What difference did it make that we did this work?*

Now what? *What could we do differently?*

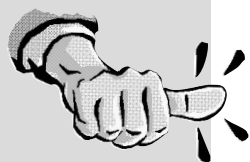
Did we do what we said we would do?

You need:

- clearly established goals and objectives.
- clearly identified measures of success, that is, what does success look like?
- identifiable changes that will occur as a result of participation in a program.
- all activities within the program directed towards ensuring that the goals and objectives are met.

The focus is on the work or the activities that the group carried out as part of its program or service delivery.



**Goals.**

A general statement of what a program is trying to achieve or accomplish overall.

Objectives.

Specific, measurable statements of what an organization wants to accomplish within a stated period of time. Objectives usually describe what will be accomplished, by whom, when, under what conditions, and how success will be measured. They also describe immediate outcomes of a program's activities.

Indicators of Success.

The identifiable changes that will occur as a result of participating in a program.

What did we learn about what worked and what didn't work?

You should:

- identify what worked well in a particular program, that is, its successes.
- identify areas that were not as successful.
- provide information about what led to or prevented these successes from occurring.

What difference did it make that we did this work?

You should measure:

- how successfully the program changed knowledge, attitudes, skills, the environment and behaviours.
- what unanticipated benefits or unexpected changes occurred.

What could we do differently?

To answer this question, you must be able to examine the information or evidence in order to make future decisions about the program. These decisions can focus on aspects of your program. Would you change your:

- goals and objectives?
- strategies for carrying out the program?
- knowledge or skills used to carry out programs?
- techniques to be more cost-effective?
- ways of involving other individuals in the community?

Who should be involved in planning an evaluation?

When you plan an evaluation, it is important to identify the groups and specific individuals who should participate in an evaluation process. It is also important to clearly identify what their roles and responsibilities will be. You might consider hiring an outside evaluator (see Appendix 2) or consult with the BC Injury Research and Prevention Unit at (604) 875-3776 or injury@cw.bc.ca.

Who should use the findings?

Be sure to specify who will use the information and for what purpose. For example:

- government
- senior manager
- programmer
- community groups
- funders
- researchers

How will they use the results?

Evaluation results can be used in several different ways:

- To make changes and improve your program or service delivery.
- To justify providing new or on-going support for your program to existing or new funding agencies.
- To provide feedback to staff and volunteers on the success of their work or efforts.
- To inform other individuals or groups who are interested in implementing a program similar to yours.

How the findings will be used will influence your choice of evaluation strategies, methods, and tools.

Worksheet 1: Who will be involved and who is interested in your evaluation?

Who will you involve in planning your evaluation?

Who will be interested in the results?

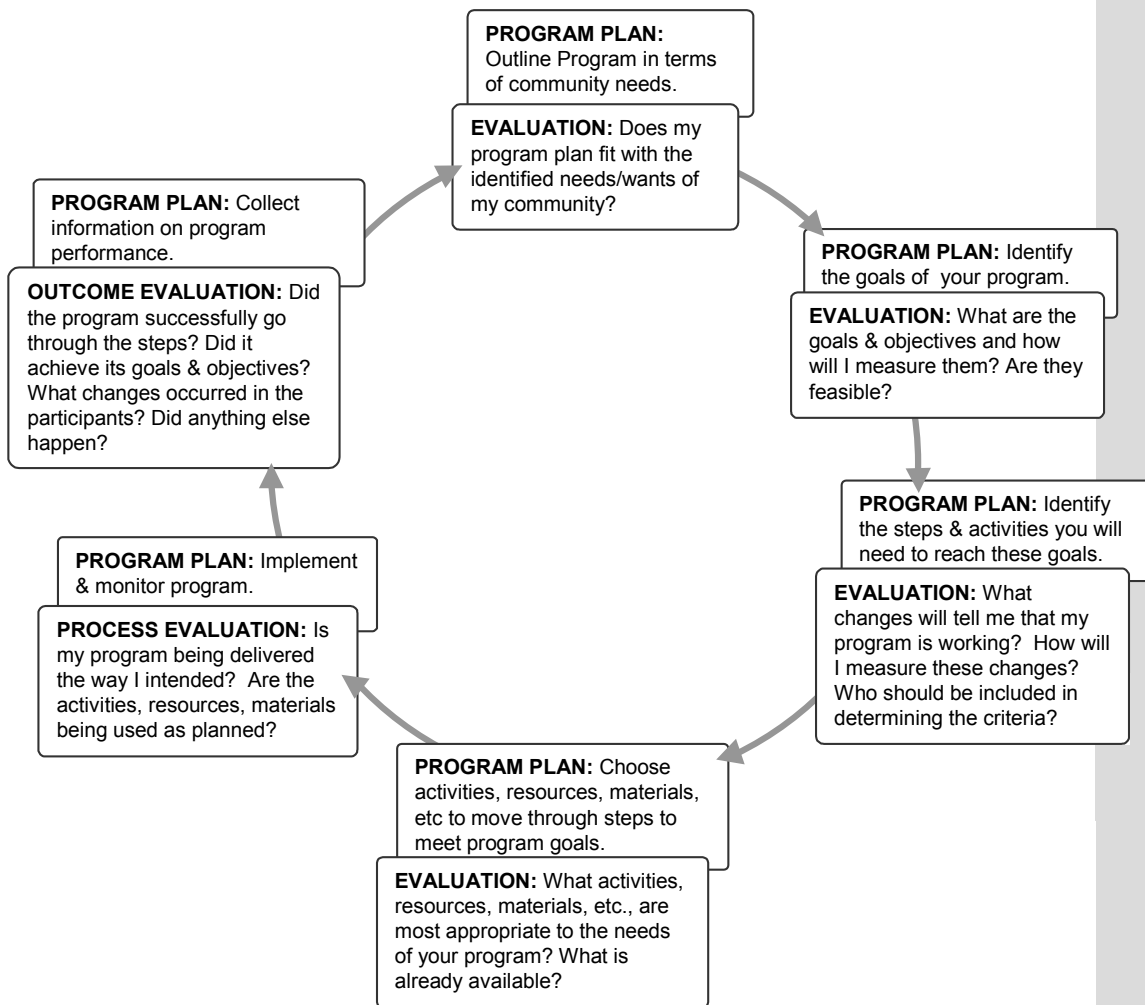
How will they use the results?

What will they want to know?

2. EVALUATION IN THE CONTEXT OF PROGRAM PLANNING

To be successful, the planning of your program and evaluation should go hand in hand. That is, you should be asking yourself evaluation questions as you design the program and think about its implementation. Then you can evaluate your program as you implement it.

This diagram outlines the planning and evaluation phases that you will use as you work your way from ideas to action¹. The sequence of planning and evaluation stages should bring you full circle, ready to consider what your program should tackle next. In this way your program continually evolves.



¹Adapted from Storoschuk et al, 2001

Ideally, a program evaluation plan should be designed when a program is in its planning phases or when a project is just starting. This begins with establishing goals and objectives and it continues throughout the program implementation.

Searching the literature should be your first step in choosing a program. It should be evidence-based; that is, research has shown that this program or programs with similar elements have been effective. You can contact the British Columbia Injury Research and Prevention Unit at (604) 875-3776 or injury@cw.bc.ca, or the Office for Injury Prevention to find out if they know of an appropriate evidence-based program.

Evaluations are about asking questions and then deciding the best ways to get useful answers. An evaluation that does not provide you with information that you and others can use is a waste of time, effort and money – and is also very frustrating. Time spent on the planning phase is very worthwhile.

3. TYPES OF EVALUATION

There are two types of evaluation: process and outcome. Both are important for a strong evaluation and for improving your program.

- **Process evaluation tells us why a program worked or did not work.** It provides you with information as to how, when and which program activities are implemented. Some questions we might ask are: How was the program delivered? How was it received? What worked, what didn't work and why?
- **Outcome evaluation tells us how well the program reached its goals.** It tells you about the impact of the program and its activities on the participants. Some questions we might ask are: Are we making a difference? What does that difference look like? Did the program achieve what we expected it to achieve?

Process evaluation

Use a process evaluation if you want to:

- Monitor how a program is being carried out.
- Find out about why a program does or does not work.
- Gather information in order to revise the program.



For example, process evaluation will answer the following questions:

- How many people participated in the program?
- Did the same people stay for the length of the program?
- Were all of the planned activities in the program carried out?
- Did the participants enjoy the activities?
- What were the major barriers to this program?
- What were the program's strengths?
- What should be done differently next time?
- Can this program be replicated?

Process Evaluation.

Information is gathered on the activities that were implemented to achieve the established goals and objectives. It measures how, when, and which program activities were implemented. The intent of process evaluation to make changes to the activities to ensure that goals and objectives will be reached in future programs. Process evaluation looks at **how** the program is being used to reach its goals.

Outcome Evaluation.

Information is collected to describe the immediate or direct effects of a program's activities. It assesses the immediate effects of the program on the target population and usually looks at changes in participants' knowledge, skills, attitudes, environment and/or behaviours that are the result of the program activity. Outcome evaluation looks at **how well** the program reached its goals.

Data.

Information collected to support a decision. Quantitative (numerical) and qualitative (non-numerical) information are important in program evaluation.

Target Population.

The persons or groups of people on whom a program is intended to have an effect. Objectives are usually written in terms of a target population.

Steps for a process evaluation:

- Determine what data you will need to collect for each of the activities in your program.
- Develop or select a system for keeping records. For example, registering the participants in your program including names and addresses; keeping an activity log of what activities were carried out, when, where and who attended.
- Identify who will be responsible for carrying out the different activities involved in the evaluation.
- Collect and compile evaluation data and information.
- Conclude whether or not the process that you used to implement your program was successful and why or why not.

Outcome evaluation

Outcome evaluation describes the direct effects of the program activities on the target population. That is, it looks at the impact that the program had on the group of people who participated in the program.

Outcome evaluation measures the short and long-term changes in the participants' knowledge, skills, attitudes, environment and/or behaviours that are a result of the program activity.

Outcome evaluation serves the following purposes:

- Tells us if the program was effective.
- Tells us if we have met our goals and objectives.
- Tells us what changes occurred in the participants or environment as a result of our program.
- Provides evidence to others that the program is working.

For example, outcome evaluation will answer the following questions:

- How much did the participants' knowledge, skills, attitudes, environment and/or behaviours change from the start of the program to the end?

- Are changes in the participants' knowledge, skills, attitudes, environment and/or behaviours still present one year later or more?
- Is the program working?
- Are the program objectives being met?
- What are the short-term and or long-term impacts?
- Were there any unexpected outcomes?

By showing in what way or by how much participants changed, you will be able to justify future support for your program. There are two ways of showing that the changes in knowledge, skills, attitudes, environment and/or behaviors were due to your program.

1. You can survey program participants before and after the program and compare their results to see if there were any changes. However, this does not ensure that some outside factor other than your program influenced your participants to change.
2. You can compare your group of participants (intervention group) to a group of similar people who have not participated in the program (control group). If there is a significant difference between the two groups, you can say with greater confidence that the change was due to your program. That is, if the group who participated in your program was significantly different from the group that did not, it was probably due to your program.

Using a control group can strengthen your results and allow you to make inferences about your program's effectiveness.

Effectiveness.

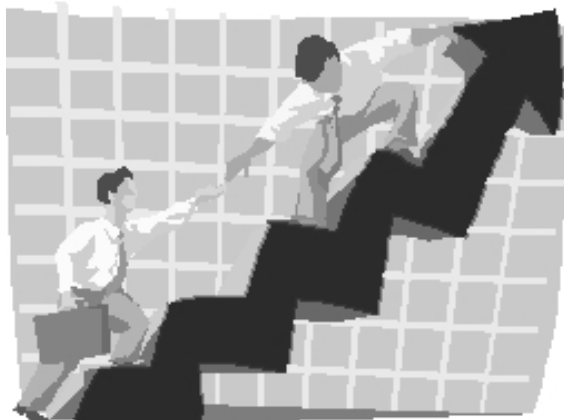
The ability of a program to achieve its stated goals and objectives and achieve the outcomes that it had identified. Assessing effectiveness is one of the major functions of program evaluation.

Surveys or Questionnaires. Tools or instruments that are used to collect data or information to describe, compare, and assess knowledge, skills, attitudes, and/or behaviour.

Baseline. Facts or data that describe a group of people before they become involved in or participate in a treatment or an intervention (e.g., program).

Steps for an outcome evaluation:²

- Clearly identify your measures of success, that is, using your objectives as a guide, be specific about what success looks like.
- Identify the tools that you will use and how you will collect your data (for example, identify what survey/questionnaire you will use and how you will distribute the survey/questionnaire to the participants and get it back).
- Identify and collect baseline data. That is, if you want to know how much participants changed as a result of participating in your program, you have to know the level of data or skill with which they started. As a result, you need to gather this data immediately before or just after the participants start in the program.
- Collect and analyze your data. Look at how or how much participants changed based on the data that you collected at the start of the program and at the end. If possible compare this to data collected from a comparison group.
- Conclude whether or not the outcomes were achieved. That is, did the participants change and if so, did they change to the level that you had stated in your objectives.
- Write and distribute reports.



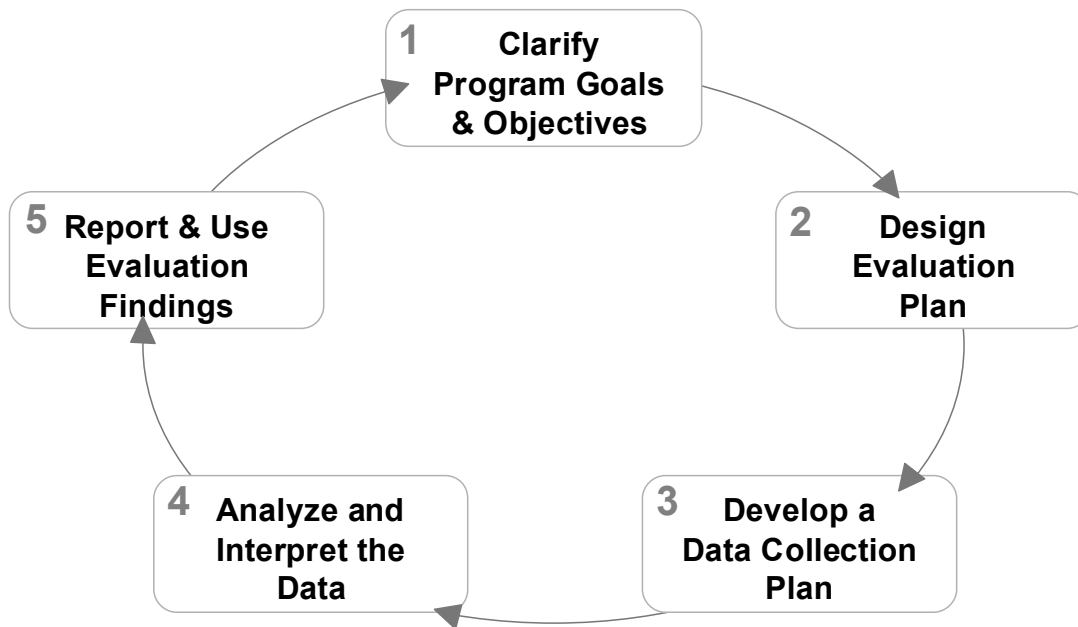
²Adapted from Storoschuk et al, 2001

Process and Outcome Evaluation³

	<i>Process Evaluation</i>	<i>Outcome Evaluation</i>
<i>Key Focus</i>	<ul style="list-style-type: none"> Looks at how you carry out your program. 	<ul style="list-style-type: none"> Looks at the effects that your program has on the participants.
<i>Suggested Use</i>	<ul style="list-style-type: none"> To repeat program activities in the same way as they were first implemented. To identify potential problems in carrying out an activity and make necessary adjustments or changes. 	<ul style="list-style-type: none"> To assess change in participants' knowledge, skills, attitudes, environment and/or behaviours.
<i>Related Questions</i>	<ul style="list-style-type: none"> Did you implement your program or activity as you planned? What are the major strengths and barriers? What is working? How can you improve the activity or program? What can you do differently next time? 	<ul style="list-style-type: none"> Is the program working? Are goals and objectives being achieved? Are participants changing in their level of knowledge, skills, attitudes, environment and/or behaviours?
<i>Measurement Tools</i>	<ul style="list-style-type: none"> Questionnaires or surveys asking participants how satisfied they were with the program. An activity log to keep track of how the <u>program</u> was implemented. An activity log to keep track of how the <u>evaluation</u> was implemented. Information gathered using focus groups & interviews. 	<ul style="list-style-type: none"> Questionnaires or surveys given to participant at the beginning and end of the program (e.g., pre-post survey) asking them about knowledge, skills, attitudes, environment, and/or behaviours Incident reports. Statistics from other sources.
<i>Strengths and Weaknesses</i>	<ul style="list-style-type: none"> Can assess how well your program is implemented. Can identify perceptions about your program's benefits. Cannot assess whether or not participants, knowledge, attitudes, or behaviours changed. 	<ul style="list-style-type: none"> Can assess actual change in the participants that can be used to draw conclusions about your program's effectiveness. Cannot assess how well the program is implemented.

³Adapted from Michigan Public Health Institute, 1999

This section takes you step by step through the evaluation process using falls prevention examples. You can follow these five steps for both your process and outcome evaluations.



Five Step Evaluation Model⁴

⁴Adapted from Storoschuk et al, 2001

STEP 1 CLARIFY PROGRAM GOALS AND OBJECTIVES

What is a goal?

Goals are general statements about what you want your program to accomplish.

Examples of goals:

The health of seniors will be improved by reducing the number of unintentional falls they experience.

By the end of August, the number of injuries related to falls in elderly people older than 65 years will decrease by 10%.

What is an objective?

Objectives are *specific, measurable statements of desired change(s) that a project intends to accomplish by a given time.*⁵

Good program objectives must meet two criteria:

- **They must identify the specific changes that a project is designed to accomplish.**
- **They must ensure that the changes are measurable.**

Five possible falls related objectives are:

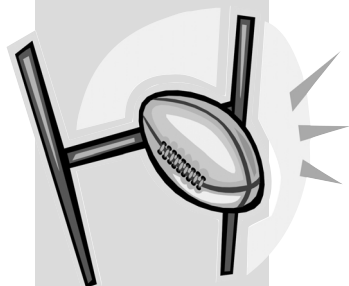
- Knowledge – by increasing the knowledge that participants have about a particular issue or subject.

Seniors in the community will increase their knowledge about the five steps to reduce falls after attending the 6 session program.

- Attitudes – by developing attitudes so that participants will likely change their behaviour in a positive manner.

The attitudes of apartment owners and managers towards safe-proofing apartments to prevent seniors from falling will change after a workshop on making living spaces safe for seniors.

⁵Health Canada's Guide to Project Evaluation: A Participatory Approach, 1996.



- Skills – by developing skills so that participants can behave differently.

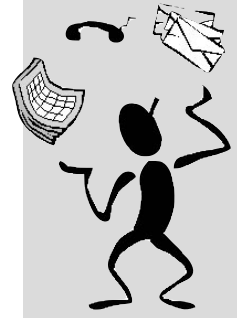
The balance of seniors participating in a falls prevention exercise program will increase by 5 points as measured on the Berg Balance Scale by the end of the program.

- Environment – by making the environment safer.

All of the sidewalks around the Cloverdale Seniors' Centre will be repaired by the end of the year after a city-wide awareness program.

- Behaviour – by maintaining or changing participant behaviour to reflect a healthy, safer lifestyle.

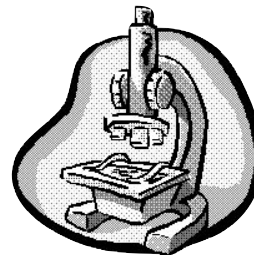
Eighty percent of the seniors participating in the falls prevention program will make at least one home modification to decrease their risk of falls within 6 months of completing the program.



How do you write clear and concise program objectives?

There are five important elements to writing clear and concise program objectives. Objectives should be **SMART**⁶:

- Specific*
- Measurable*
- Action-oriented*
- Realistic or relevant*
- Time Limited*



Specific

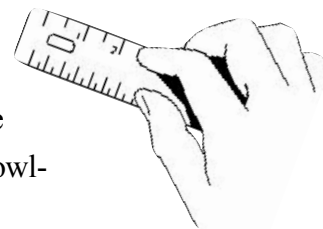
Objectives are specific if they can be measured. Your objectives will help to define your program activities and identify your target audience. And, remember that each objective should contain only one main idea.

⁶Adapted from Freddolino, P. and Michigan Public Health Institute, 1997

Focus Group. Usually 7 – 10 people, with similar characteristics, that come together to prove information by discussing a specific topic. A trained facilitator keeps the discussion on track, provides targeted questions, and creates a non-threatening environment.

Measurable

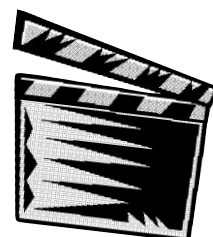
An objective is measurable if you can provide a count or state how much change has occurred. In order to determine whether or not your participants changed, you must be able to measure change on a given characteristic (e.g., knowledge, skill, attitude, environment, and/or behaviour).



To do this you have to know the level where they were at the start of your program. And then, you have to measure again at the end of the program to see if there was any change. You can gather this type of information using tools such as questionnaires or surveys or by using methods such as phone interviews or focus groups.

Action-oriented

An objective is action-oriented if it describes the change and direction in which participants will change. Will the change in the participant's knowledge, skills, attitudes, environment, and/or behaviours increase or decrease? Use an active rather than passive voice to write your objectives. That is, use an action verb (e.g., will increase, will report, will exercise, will wear).



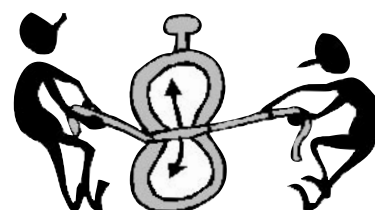
Realistic

Objectives should be realistic. Meeting objectives depends on your program activities, your available resources, and what you can reasonably deliver. Look at the content of your activities, the length and how often you have contact with participants, and the money and people you have available to deliver the program. Then, consider whether or not your objectives are feasible.



Time Limited

Your objectives must be realistic in what you expect to change as well as the timeframe of your activity. They should state when you expect to see changes in participants' knowledge, skills, attitudes, and/or behaviours.



Questions to ask when writing SMART objectives

Specific	<u>Examples</u>
<p>Who is expected to change? Who are you targeting?</p> <p>What do you want to change? (e.g., knowledge, attitudes, skills, environment, and/or behaviours)</p> <p>Where do you expect the change to occur? (e.g., the location, such as in the schools, community, city, province, etc.)</p>	<p>Seniors living in Zanzibar; Participants in your program.</p> <p>Increase the number of seniors participating regularly in Tai Chi programs; Decrease the attitude that falling is an inevitable part of getting older.</p> <p>In Zenith Community; In all seniors' homes in the Northwest Health Region.</p>
<p>Measurable</p> <p>What short-term steps do you want to accomplish?</p> <p>How would you measure the objective?</p>	<p>An increase of 10%; 4 out of 5 people.</p> <p>Pre- and post-surveys with questions asking about a specific knowledge, skill, attitude, and/or behaviour.</p> <p><i>How many times have you fallen in the last year? What changes did you make in your home to prevent falls since last summer?</i></p>
<p>Action-oriented</p> <p>How many or what percentage of recipients is expected to change?</p>	<p>25% of the seniors <i>will increase their knowledge</i> of preventing falls; 80% of seniors in the program <i>will start exercising</i> to improve their balance.</p>
<p>Realistic</p> <p>What makes you think it is doable?</p>	<p>The program is comprehensive and intense. Research has proven this program is effective. There are enough staff and resources to implement it.</p>
<p>Time Limited</p> <p>When do you expect the change to occur?</p>	<p>End of the program; In 6 months.</p>

Example of objectives that are *SMART*:

Thirty percent of seniors participating in the program will conduct a medication review with their pharmacist to help reduce the risk of falling within six months of completing the program.

The levels of confidence in preventing a fall will increase by 50% for three-quarters of the seniors participating in a falls prevention program by the end of the program.

An objective that is **not** *SMART*:

Seniors will not fall after participating in the falls prevention program.

This objective is too general and does not specify how much change or how many of the participants will experience the change (assumes 100% which is unrealistic).

Worksheet 2: Writing Program Goals and Objectives⁷

Use the following template to write your objective.

Goal:		
	Question	Answer
Specific	Who is expected to change?	
	What do you want to change? (e.g., knowledge, skills, attitudes, environment, and/or behaviours)	
	Where do you expect the change to occur? (e.g., in the schools, community, city, etc.)	
Measurable	How would you <i>measure</i> the objective?	
Action-Oriented	How many or how much change is expected?	
Realistic	What makes you think it is doable ?	
Time Limited	When do you expect the change to occur? (e.g., end of program, in the next 6 months, etc.)	
Objective:		

⁷Adapted from Storoschuk et al, 2001

Worksheet 3: List of Goals and Objectives*

List the objectives for each goal.

Goal:	
Objective 1:	
Objective 2:	
Objective 3:	
Objective 4:	

*The number of goals will vary depending on your progress.

The number of objectives for each goal will also vary.

STEP 2 DESIGN AN EVALUATION PLAN

You need to know:

- Who is your target population and how will you access them?
- What activities will you do to meet your objectives?
- What is the time line for your evaluation?
- What resources do you have available?

The answers to these questions will help you determine the resources that you need to carry out your evaluation. It will also help identify the strategies, methods, and the tools that you will use to collect your information and data.

Who is your target population and how will you access them?

In order to make sure that you have reliable evaluation results, it is important to have a substantial number of individuals who participated in your program for the full duration. Usually at least 25 participants are required for significant results, but this can vary. It is best to consult with a statistician or researcher. Did enough people participate in the program for the full-length of the program? Be sure to track attendance of participants to your program.

If you are conducting a long-term follow-up evaluation how will you stay in touch with these participants? If you are doing a mail survey for follow-up or a telephone survey, you should aim for 60 to 80% response rate.

If only 20% of participants respond you cannot use this data to generalize to the entire program population.

What activities will you do to meet your objectives?

There will be specific activities that are part of your program to help you meet your objectives. It is a good idea to think carefully about which activities in your program



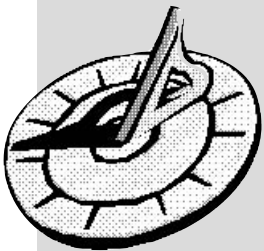
STEP 2

relate to each objective. Linking your activities to your objectives helps ensure that:

- you will be doing what your objectives say you are doing;
- you have a way of measuring all of your activities;
- you are not doing activities that are not relevant to your objectives and goal.

Sometimes we become overly ambitious and try to implement programs that encompass too much. It can be difficult to show a program is effective if it is beyond the scope of our objectives and thus our evaluation.

Linking Activities to Your Objectives



What is the timeline for your evaluation?

The length of time that you have to carry out an evaluation will have an impact on the type of evaluation processes and tools that you choose. It will also have an impact on the resources that you will require to do the evaluation.

If you are conducting an outcome evaluation that includes a longer-term follow-up, you will need to factor this into your timeline. Or, if you have only a short period of time to implement and evaluate your program, you may need more people to help with the evaluation. You will need to plan your evaluation strategy accordingly.

For instance, if you only have funding for a year, in order to collect the data before and after the program, analyze it and write your report you will need to **make sure the program ends one to three months before the report is due** (depending on how many staff hours you have to commit).

For example:

Funding for a one-year falls prevention program was received April 1. The following timeline was developed.

Example of a possible timeline:

Task	Person Responsible	Resources	Timeline
Plan your program	Project Coordinator Program Staff	Staff time	April 1-30
Design your evaluation	Project Coordinator Program Staff Eval Consultant	Staff time	April 1-30
Implement program	Project Coordinator Program Staff	Staff time Money Materials	May 1- Dec 15
Collect baseline data	Project Coordinator Secretary Data entry staff	Staff time Photocopying Postage	May 1-15
Collect post data	Program Staff Secretary Data collection staff	Staff time Photocopying Postage	Dec 1-15
Analyze data	Project Coordinator Evaluation Consultant	Staff time Computer	Jan 1-31
1-month follow-up data collection	Program Staff Secretary Data collection staff	Staff time Telephone Postage	Feb 1-15
Analyze follow-up data	Project Coordinator Evaluation Consultant	Staff time Computer	Feb 15-28
Write report	Project Coordinator Program Staff Evaluation Consultant	Staff time Computer Photocopying	Feb 1-Mar 31
Disseminate report	Project Coordinator Program Staff	Staff time Travel	April 1-30

The program planning and evaluation design took **1 month**. The program was implemented for **seven and a half months**, and the evaluation took **three months** including data analysis and writing the report. This will vary depending on how long you have funding, the type of program, the extent of your evaluation and how many times you collect data. Inevitably unforeseen circumstances will occur so that it may be difficult to follow a strict timeline. Be flexible and plan extra time!

What resources do you have available?

- 1) Identify people who will be involved in designing, collecting, analyzing and interpreting the data or information.
- 2) Determine who you will need, what they will do, and how long it will take them to carry out the activities involved in the evaluation.
- 3) Determine what external resources, such as a consultant, you will need to help with specific tasks.

Consider the level of previous experience that individuals have had in conducting an evaluation, the amount of time they have available for this initiative and determine whether they need any additional skills training in order to do the required tasks.

Above all, ask the question: **Are they interested in participating in the evaluation process?** If not, it would be better to find individuals who are interested in and committed to being involved. It is important to keep in mind that individuals need to be able to step back and be objective about the evaluation process, particularly if they will be involved in activities such as designing questionnaires or conducting interviews or focus groups.

Here is a list of possible resources that you may require for your evaluation:

- Budget (this should be about 10% of your program budget)
- Staff with skills such as focus group facilitation, data collection and entry, program implementation, data analyses, report writing
- Support staff
- Consultants
- Office supplies, photocopying, telephone, equipment (especially a computer), and space
- Program activity supplies
- Time
- Data collection tools (e.g., surveys & questionnaires)
- Travel
- Computer and data support

The following pages contain worksheets to help you begin planning your evaluation.

Worksheet 4: Who is your target population and how will you access them?

1. Who is your target population?

2. How will you access them? (Where, when, etc.)

a) Where? (at the program, by mail, at school, etc.)

b) When? (during the program, before and after the intervention, in the evenings by phone, etc.)

3. How will you make sure that you have access to this group in the short and long-term?

4. How will you keep track of the participants during your program?

Worksheet 5: What activities will you need to do to meet your objectives?

Use the following table to link your program activities to your objectives for each goal.

Goal:

Objective	Activities
1.	
2.	
3.	
4.	

Worksheet 6: What is the timeline for your evaluation?

List the tasks that need to be done, who is responsible for completing them, what resources are needed and when you expect to complete the task. You can be as general or as specific as you like.

Task	Person Responsible	Resources	Completion Date

Worksheet 7: What resources do you have available to conduct the evaluation?

- Professional Staff _____

- Support Staff _____

- Time _____

- Money _____

- Office Supplies and Equipment _____

- Consultants _____

- Computer and Data Support _____

- Telecommunications _____

- Travel _____

- Space _____

- Other _____

STEP 3 DEVELOP A DATA COLLECTION PLAN

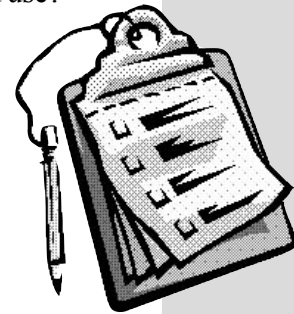
By the time you reach this step, you should have your goals and objectives written and an evaluation plan in place. You now know who you are targeting, what knowledge, attitude, skills, environment and/or behaviours you want to change, and how you are going to do it. The next step is to develop a plan for collecting your data.

Your data collection plan should tell you:

- What data needs to be collected?
- How will you collect your data, that is, what methods and tools will you use?
- When will the data be collected?
- Who will collect the data?

You already answered the following two questions in the last section.

- Where will the data be collected?
- Who will the data be collected from?



What data needs to be collected?

There are a number of different types of data that you will want to collect.

- Demographic data are important to describe your population. You will want to know exactly who participated in your program. It also allows for comparisons between groups to see if different changes occurred in different groups because of the program. For instance, you can analyze your data to see if there is a difference in how many females injured themselves by falling compared to how many males did, or, if a particular age group is more prone to falls. Be cautious that you only ask for the information that is important to your evaluation or your program. People do not always like giving out personal information. In some cases where the content of the questionnaire is very sensitive it is best to place the demographic questions at the end of the survey.

Examples:

- *age*
- *gender*

Demographic Data.

Information that describes the population, usually on age, gender, education level, income level, location, and cultural background.

STEP 3

Standardized Surveys.

These are surveys or questionnaires that have been tested for reliability and validity. Standardized surveys can be used to compare data that is collected across other programs in either that same or other regions.

- *education level*
- *income level*
- *location*
- *cultural background*

(An example of specific demographic questions taken from a standardized survey is shown on the following page).

- **Process data** are important to describe how your program was implemented. That is, did you do what you said you would do? This can be helpful when you explain your results and in determining what in your program needs to be changed. Collect this data using tracking forms such as attendance sheets, logs and program notes.

Examples:

- *number of sessions participants attended*
 - *number of participants who attended each session*
 - *where and when the intervention took place*
 - *were there any other similar programs that the participants attended during the time of your program*
 - *were there any other events in the community that may have influenced the participants in your program*
- **Outcome data** are important to show if your program was successful. Outcome data show change in knowledge, attitudes, skills, environment and behaviours that have occurred because of your program. Your objectives drive the decision about what data need to be collected. Using these as a guideline you can choose what methods and instruments will be needed to collect the relevant data.

Examples:

- *number of seniors who have consulted a pharmacist to review their medications*
- *number of seniors who have changed their environment to avoid a fall*
- *number of homes that have adequate handrails on their stairs*

Methods of Data Collection

There are two methods of data collection: quantitative and/or qualitative. In evaluation, both methods are important and useful and which method you use depends on the questions you are trying to answer. It is important to choose the method that best suits the data you are collecting. Most evaluations use a combination of the two methods, and both are used for collecting data for process and outcome evaluations.

Quantitative Data.

Information that provides an account of the scope of the problem, work or event based on numbers or statistics. Quantitative data can be used to show that results are statistically significant. Information is usually collected by using questionnaires or surveys or structured interviews.

1. Quantitative Methods

*“Quantitative methods are ways of gathering objective data that can be expressed in numbers.”*⁸ That is, quantitative methods are objective and involve collecting data in the form of numbers to be analyzed. Quantitative methods can be used for both process and outcome evaluation and can be beneficial because you can draw conclusions about your target population from the results. Quantitative data shows changes in knowledge, attitudes, skills, environment and behaviours and can also be used to show satisfaction.

Characteristics of quantitative methods:

- They provide structured data.
- They make it easier to collect data from a large number of participants.
- They can generalize and quantify results.
- They can be compared statistically.
- They allow conclusions to be drawn about the target population.

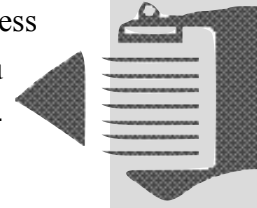
The quantitative methods and tools most often used are:

- 1) surveys/questionnaires
- 2) counting systems
- 3) document or record review

⁸Thompson & McClintock (1998). Demonstrating your program's worth.

1) Surveys

A survey is a systematic way of collecting data to describe, compare and assess knowledge, skills, attitudes, environment and/or behavior. Most often when you survey you will want to collect data at different points in time. You can then compare the results to see if there were any changes from time A to time B.



What are the best uses of a survey?

- To gather baseline data on knowledge, attitudes, skills, environment and/or behaviours of your target audience. (Outcome)
- To gather information about participants' satisfaction with the program. (Process)
- To measure the amount of change in knowledge, attitudes, skills, environment and/or behaviours of your target audience. (Outcome)
- To show how many more people report engaging in the behaviours you are measuring. (Outcome)
- To compare changes in responses before and after an activity. (Outcome)
- To gather uniform responses from a large number of people that can be compared. (Outcome & Process)

Tips for using a survey:

- **Use an existing instrument** instead of creating your own whenever possible.
- **Include demographic data**, for example, age, gender, grade, income level, place of residence, and education level.
- **Include instructions that are easy to understand.**
- **Ask the same questions and use the same wordings on any pre- and post-surveys** to allow for comparison.
- **Use language at an easy reading level** that your target audience will understand and keep it simple, that is, written at a grade 6 to 8 level.
- **If your target population has low literacy levels consider doing in-person interviews or telephone interviews** with your questionnaire.

- **Make sure it is culturally sensitive** (e.g., don't use language or slang that may be offensive to certain ethnic groups).
- **Keep each question short.**
- **Make the survey as short as possible.**
- **Use close-ended questions** whenever possible.
- **Place questions about the least sensitive materials first** to ease the participant into more sensitive matters.
- **Questions should go from general to specific.**
- **Be sure that each question addresses only one topic at a time.**
- **If you develop your own survey, pilot-test it** to work out the wrinkles. To do this, ask a small group of people (10-15) similar to those in your target group to complete the survey. Have them comment on clarity, format, comprehension and length of the survey. Then try to analyze the data and ensure it is what you want.
- If you are using a survey or questionnaire that someone else or some other agency developed, **make sure that you ask permission to use their survey or questionnaire.** This avoids any possible complications about copyright.
- **If you are still unsure ask someone at BCIRPU to review it for you.**

When using surveys to compare changes before and after the intervention, remember to ask for information that will allow you to identify subjects but which retains confidentiality. This can be done anonymously by using the last 4 digits of their phone number, or making up an identifier like in the example below.

Example of a code used to identify participants surveys while keeping their identity unknown.⁹

Please read each sentence below carefully and write the correct letter for each question on the line. Print clearly.

First two letters of your middle name (if no middle name, write “ZZ”) _____

First two letters of the month you were born in _____

First letter of your gender: “m” for male and “f” for female _____

When will the survey happen?

Deciding when to collect your data is important. You should consider the following factors when deciding to collect your data or information.

- If you are measuring *change* in knowledge, attitudes, skills, environment and/or behaviours you will need to collect the data at different time periods so that you can compare the data at time 1 with time 2 to determine the amount of change.
- It is best to administer a survey or questionnaire just before you start your program (this is your baseline) to get an idea of where your participants are at before they are exposed to any information. Then, administer the survey or questionnaire after the program ends to see what changes occurred in your participants due to the program.
- You could administer a third questionnaire several months after the end of the program to see if these changes are still present. If your program worked very well, changes would be seen as far as 12 months after they participated in your program. This is a good aim to shoot for!
- When using a control group be sure to survey them at the same times as the intervention group.
- How often you can collect data will depend on your resources. Be realistic, nobody wants to be filling out a questionnaire every week, or every month.

⁹Adapted from the *School Health Survey*, University of Guelph & University of Waterloo.

How will you administer your survey?

The three methods most commonly used for administering surveys are: personal interview, telephone interview and distribution. You will need to decide what is the purpose of your evaluation and who are your respondents. For instance, it is better to do a personal or telephone interview with a group that has difficulty reading. On the other hand, if it is a lower income group, they may not all have telephones, in which case doing a personal interview may be your best option. You can distribute questionnaires to people via mail or in person or by computer through email or website (but first make sure your target audience has easy access to computers!). It might be easiest to get them to fill out a questionnaire while attending your program.

The following is a table that describes the advantages and disadvantages of each method.

Advantages and Disadvantages of Methods of Administering Survey Instruments.¹⁰

Tips for administering the survey:

- **Keep track of when, where, by whom and to whom the surveys are administered.**
- **Ensure participant anonymity and confidentiality** by having them not put their name on the survey or by using an identifier.
- **Have enough time set aside for participants to complete the survey.** Most people do not want to spend more than 10 minutes completing your survey.
- **Give exactly the same instructions every time** the survey is administered.
- **Keep all completed surveys in a secure place**, especially if they contain sensitive and confidential information.
- **Promptly enter your data into your database.**
- **Check with your agency or institution regarding the necessary ethics or consent requirements.** For instance, you must get consent from parents if you are surveying children or youth under 19, and school administration and teachers if you are administering the survey in schools.

Who will conduct the survey?

The method you use for administering your survey will help determine who will administer it. For example, if you do a telephone survey you will need trained telephone interviewers. If you survey participants on the last day of the program, program staff can administer it. Decide who will administer the survey to your participants and what kind of training they will need. Whoever collects the data should be experienced in administering that particular method.

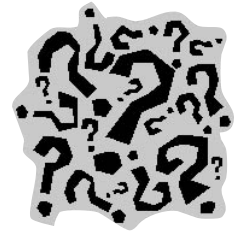
The person administering the survey should keep in mind the following considerations:

- Provide the same clear instructions to the participants at the beginning of the survey.
- Answer questions in a neutral manner, such as, “Don’t worry, just do the best you can. There is no right or wrong answer”.
- Each interviewer should follow the same procedures and ask the same questions, in the same way. Do not influence the participant’s answers in any way.

(See Appendix 3 for *Guidelines for Designing a Survey*)

Types of Questions

There are many types of questions that you can use in your survey. How you ask a question will depend on what information you require and what you are measuring. Always refer back to your objectives.



There are two types of questions you may wish to use:

- Close-ended
- Open-ended

The following table discusses the differences between these two.

What are the differences between close-ended and open-ended questions?	
<i>Close-ended Questions</i>	<i>Open-ended Questions</i>
<ul style="list-style-type: none">• Respondents are given a set of answers to choose from; a list of possible answers is usually provided.• Respondents are forced to choose from the alternatives provided.• They are used to collect quantitative data or information.• Easy to analyze.	<ul style="list-style-type: none">• Respondents can reply in their own words; they can express their thoughts, feelings, and emotions about a topic.• Respondents can provide their own responses.• They are often used to collect qualitative data or information.• More time consuming and difficult to analyze.

There are a number of types of close-ended questions:

- Multiple choice
- Ranking scales
- True or false
- Rating scales

The following tables provide more information on the different types of questions, when to use each, and examples.

Tips for Using Different Types of Questionnaire Questions and Examples

<p>Open-ended questions</p>	<ul style="list-style-type: none"> • Use when you want people to express themselves freely. • Use when you want information about participants' ideas and perceptions. • Use when you cannot list all of the possible responses. • Use when you don't know how people will respond to a question. • Respondent can provide long or short answered questions. • Note: these are more difficult to analyze. <p><i>Examples:</i></p> <ol style="list-style-type: none"> 1. Can you tell me your top 3 risk factors for falls you identified from using the Falls Prevention Booklet? 2. What changes did you make to your behaviour or environment? 3. Why did you make changes to your behaviour or environment? 4. Which items in the Safety First kit did you think were the most useful? 								
<p>Multiple choice questions</p>	<ul style="list-style-type: none"> • Use to collect quantitative data. • A list of answers is provided. • The participant must choose an answer from those already provided. • You may need to have an "other" category to choose from, in case none of the answers provided are right for the respondent. <p><i>Examples:</i></p> <ol style="list-style-type: none"> 1. Circle the age range you are in: a) under 50 b) 50-65 c) 66-80 d) over 80 2. Have you made any of the following changes to your home to make it safer? <ol style="list-style-type: none"> a. Installed more lights b. Installed hand rails c. Removed loose rugs d. Safety modifications to house structure or furniture e. Other _____ 3. Who have you discussed home safety issues with? <ol style="list-style-type: none"> a. Spouse/partner b. Grandparents/relatives c. Caregiver/babysitter d. Friends/neighbours e. Co-workers f. Other _____ 								
<p>Ranking Scales</p>	<ul style="list-style-type: none"> • These require the respondents to sort items by assigning a number, usually in the order of importance to them. <p><i>Example:</i></p> <ol style="list-style-type: none"> 1. Please rank in order of importance which factors you think <u>will help prevent</u> falls. Rank in order, where 1 is the most important and 7 is the least important. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">___ exercising daily</td> <td style="width: 50%;">___ fixing uneven sidewalks</td> </tr> <tr> <td>___ using a cordless phone</td> <td>___ moving more slowly</td> </tr> <tr> <td>___ avoiding getting up quickly</td> <td>___ keeping lights on</td> </tr> <tr> <td>___ not drinking alcohol</td> <td></td> </tr> </table> 	___ exercising daily	___ fixing uneven sidewalks	___ using a cordless phone	___ moving more slowly	___ avoiding getting up quickly	___ keeping lights on	___ not drinking alcohol	
___ exercising daily	___ fixing uneven sidewalks								
___ using a cordless phone	___ moving more slowly								
___ avoiding getting up quickly	___ keeping lights on								
___ not drinking alcohol									
<p>True or False</p>	<ul style="list-style-type: none"> • True or False questions give very limited options for the participants. • These questions do not show subtle changes in attitudes. • The questions need to be written very clearly and simply because any ambiguity will make it difficult to answer. <p><i>Example:</i></p> <ol style="list-style-type: none"> 1. Injuries from falling among seniors are preventable. <ul style="list-style-type: none"> <input type="checkbox"/> True <input type="checkbox"/> False 								

continued...

continued...

Rating Scales

- Use a rating scale when you want people to rate their preferences or perceptions.
- These have points at either end of a scale that are opposite of each other.
- Usually each point along the scale has a rating or agreement associated with it.
- Most scales have 4, 5 or 7 points on the scale.

Examples:

1. Senior's injuries due to falls in the home are preventable.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Do you consider injuries to seniors in the home a serious issue?

1	2	3	4	5
Not at all Serious	A little Serious	Somewhat Serious	Quite Serious	Very Serious

3. Since receiving the kit, would you say that your awareness of fall prevention in the home has increased?

Not at all	A little	Somewhat	Quite a lot	Very much
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Rate how important the program was in making you more aware of the resources in your community to help you prevent falls.

Very Important	Important	Somewhat Important	Not at all Important
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. How likely do you think it is that you will fall in the next 6 months? Check only one.

- Very likely
- Somewhat likely
- Somewhat unlikely
- Very unlikely
- I don't know

Using Standardized Surveys

In some cases there are standardized surveys that you can use instead of developing your own. If a survey is standardized that means it has already been tested for reliability and validity with a specific population.

Although you are only collecting data for your program, it is important to think about how else you may want to use this data. One way is to compare it to data collected by other programs in either the same region or another region. To do such a comparison would require that the information in both regions be collected the same way. Using a standardized survey is an easy way of collecting this data.

For example, using a standardized survey would be helpful if you were collecting data on injuries to seniors in your local community and you wanted to know how this compared to injuries to seniors in the rest of BC. Data that is collected using the same standardized survey can be used locally and can be compared with data from other regions, other provinces and all of Canada if needed.

The following is an example of a standardized survey that can be downloaded from the web.

Canadian Community Health Survey-Draft, *Health Canada*
<http://www.statcan.ca/english/concepts/health/content.htm>

What is baseline or benchmark data?

When we talk about collecting baseline data, what we mean is data that is collected before a program is implemented. This data shows us where participants are before they participate in any programs or are exposed to new information. If the same questions are asked after the program, any changes to their answers may be attributed to the effects of the program. Having baseline data allows for comparisons over time.

For instance, in April a group of seniors are surveyed and 20% say that they have made changes in their homes to prevent falls. This starting point becomes your baseline or benchmark. In your evaluation, you can then measure against this baseline.

In June, after a falls prevention program has been carried out in the community, 60% say that they have made changes in their homes to prevent falls. You can report that

Reliability.

The extent to which a measure produces the same result, time after time, across different venues or different raters.

Validity.

A measure of the extent to which an instrument actually measures the trait or characteristic that it is supposed to measure.

Benchmark.

A starting point or baseline information that is necessary to measure the kind and level of change that has taken place as a result of participation in a program.

Qualitative Data. Information that provides a description of the circumstances and conditions of the situation, work, event, or problems, for the purposes of making an assessment. Information usually reflects the feelings, beliefs, and impressions of people participating in the program. Information is usually non-numerical and is often collected through interviews.

there was a 40% increase in home improvements to prevent falls after implementing your program.

Note: This is an example of quantitative data collection, however, if you brought together a group of ten of these seniors and ask why they did or did not make changes in their homes, this would provide you with qualitative data.

2) Counting System

Counting is useful for keeping track of how the program has been carried out and for your process evaluation. It involves keeping written records of all events and is helpful to develop forms to track things such as the number of participants that attend each session of the program, and what activities were completed.

What is the best use of a counting system?

- To track data about how the program was carried out. For instance, if you want to know how many participants attended, how many of the planned activities were carried out, how many surveys were filled out, etc. (Process)

Tips to using a counting system:

- **Plan ahead by creating activity logs and ways of keeping track of data** during the program so that you will have all of the data you require for the evaluation.

3) Document or Record Review

Documents can also be reviewed to gather information. For example, using statistics from the local health department on the number of falls reported for the last year, or the statistics from the emergency room of a hospital about how many and what types of injuries were reported. BC Injury Research and Prevention Unit and the Office for Injury Prevention are both excellent sources for injury data.

What is the best use of a document review?

- To gather data that has already been collected, such as from reports that have already been published. For instance, using a Statistics Canada report to find out how many playground injuries occurred last year. (Outcome)

Tips to using document reviews:

- **Be consistent in how you extract data.** Always record and interpret the data in the same way.
- **Be sure the data reported meets your needs.** For example, if you want the number of injuries per person and Statistics Canada reports it as number of injuries per 1000 persons, you will either need to divide Statistics Canada's number by 1000, or multiply your number by 1000.

When will the data be collected?

- Data from documents and reports can be collected at anytime. However, if you know that you will be using data from reports, the sooner you collect it, the better. It may be helpful in deciding what other data you need to collect, or, it may guide you in planning your program.

Who will collect the data?

- Anyone can extract information from documents and reports as long as they know exactly what data is critical. Also, it is important to be consistent. That is, all those involved in collecting the data should do it the same way. If more than one person is extracting the data it is a good idea to check for reliability. One way to do this is to have them both extract data from the same report and compare what each finds to see if it is the same.

2. Qualitative Methods

Qualitative methods “*permit the evaluator to study selected issues in depth and detail.*”¹¹ That is, qualitative methods are subjective and are used to find out the feelings, beliefs, and impressions of the people participating in the program and/or evaluation. They describe and explain.

Characteristics of qualitative methods:

- They are used to gather detailed, in-depth data.
- They are not always generalizable to the entire population.
- They provide language, context, and relationships of ideas.
- They cannot be easily compared statistically.

Qualitative data can be collected at different points in your program:

- Before the program begins to pilot test aspects of the program and/or instruments to be used in the evaluation.
- During the program to test plans, procedures and materials if a problem arises. With data from focus group participants most problems can be fixed before they cause too much damage.
- After the program is completed to explain results, to find out the participants’ perceptions of and feelings about the program, for feedback, and barriers and strengths of the program.

The qualitative methods most commonly used are:

- 1) focus groups
- 2) personal interviews
- 3) observations
- 4) case studies

¹¹Patton, M.Q., 1990.

1) Focus Groups

A focus group consists of 7 to 10 people with similar characteristics that come together to give you information by discussing a specific topic. There is always a facilitator who keeps the discussion on track, provides targeted questions and creates a non-threatening environment. The data gathered is used to answer questions about the perceptions, feelings, knowledge, attitudes, environment and behaviours of the targeted group of people.

What are the best uses of a focus group?

- To determine the perceptions, feelings, and manner of thinking of a specific group of people, e.g., what participants thought about a program, why seniors feel helpless in reducing injuries due to falls. (Process)
- To collect data on knowledge, skills, attitudes, environment and/or behaviours. (Outcome)
- To provide insights into the attitudes, perceptions and opinions of participants. (Outcome or Process)
- To gather data about a new program or product, e.g., what do seniors think about a media campaign for preventing falls in seniors, how does the community feel about fire prevention data. (Process)
- As follow-up to a survey. More detailed data about the results of the survey can be obtained by gathering together a group of survey participants to discuss and give insight about the results. For instance, you find that seniors who live with their sons or daughters are less likely to change their environments to make them safer. You want to know why, so you bring together a group of the seniors to discuss these results. (Outcome or Process)

Tips for using a focus group:

- **Use an experienced facilitator.**
- **A focus group typically contains 7 to 10 people.**
- Depending on the size and make up of your population, **you may need to conduct more than one focus group, for the same topic**, with different groups to get different perspectives and a representative sample. For example, to discuss injuries due to falling in seniors you may want a total of four focus groups: a

Sample.
A part of a population.

STEP 3

group of females younger than 60 years old, one of females 60 years old and older, one of males under 60 years old, and a group of males 60 years old and older. Or, you may want to divide the group by ethnicity.

- **The members of the group should be similar to each other in certain aspects** depending on the questions being asked. This gives them a sense of equality and they are more likely to give their true opinion. For example, you may want only females in the group, or just seniors over 75 years of age, or only those who experienced a fall.
- **Ideally, the members of the focus group should not know each other well.**
- **Questions should be open-ended to promote discussion.**
- **Questions should be very focused.**
- **All members of the group should be encouraged to talk.** Avoid letting one or two people dominate the discussion.
- **Introduce the purpose of the focus group to the participants** so that they will have a context with which to answer the questions.
- **The participants should feel comfortable and non-threatened** so that they can say whatever they are thinking or feeling.
- **Let them know that the data they provide will be confidential.**
- **Tape-record the session so that you can transcribe it.** In order to analyze the data you must type out what is said verbatim. It is not easy to remember exactly what everyone said after the session. It is wise to have an assistant take notes in case something goes wrong with your tape-recorder. Always ask for permission to tape record the session.

When will the data be collected?

Focus groups can be conducted before the program begins, during the program or after the program takes place, depending on the purpose of the focus group.

Who will collect the data?

It is preferable to use a trained facilitator to conduct the focus group. The facilitator should know the purpose of the focus group and have a list of predetermined, open-ended questions, but let the group flow with their ideas and thoughts. The facilitator

should not make judgements about what is said. Therefore, he or she should not respond in a positive or negative manner but should stay neutral throughout.

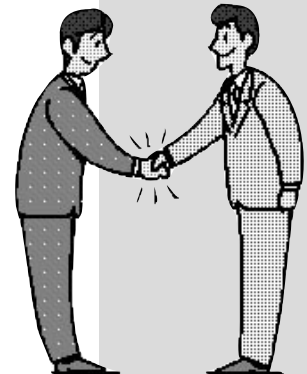
Conducting a focus group requires the facilitator to:

- have skills in group facilitation
- ask questions that are not leading
- answer questions in a way that does not influence the participants
- know when to prompt the participants for more data
- keep the discussion focused
- know how to get everyone to participate in the discussion.

If you do not have someone in your organization that has skills as a facilitator you may want to hire a consultant to carry out this task. Ask at your local college or community agencies if they could recommend someone.

2) Personal Interviews

Personal interviews involve sitting down and talking with one or possibly two people about their thoughts and feelings about a particular topic. They are used to collect qualitative data. Personal interviews are best done in-person, but can be done on the telephone if absolutely necessary.



What are the best uses of personal interviews?

- To gather in-depth information from a small number of people. (Outcome or Process)
- To gather information from someone who does not fit into a focus group setting. For instance, a supervisor, the CEO of a company, or a government official. (Outcome or Process)
- When you need information about a sensitive topic that people may not be willing to discuss in a group. (Outcome or Process)

Tips for using personal interviews:

- **Stay focused.** Keep your participant focused on answering the questions you ask.
- **Be prepared.** Have all of the questions written out that you want to ask.
- **Prioritize the questions** so that the most important questions get asked.
- **Do not use leading questions.**
- **Avoid questions that require a yes or no response.**
- **Try to make the interview flow like a conversation.**
- **Write down answers to questions and ask for clarification when needed.**
- **Use a skilled interviewer.**
- **Tape record your interviews** so you can transcribe them. The interviews need to be typed-out so that you can analyze the data and identify themes in what the participants said. It is best to use what your participants said verbatim.

When will the data be collected?

Personal interviews can be used to collect data before the program begins to gather information about aspects of the program or after the program ends to elicit information about the participant's experiences, thoughts and feelings.

Who will collect the data?

The interviewer needs to know the objective of the interview and be comfortable talking with members of the target population. The interviewer should be skilled at knowing when to redirect the interviewee.

3) Observations

Observations involve watching the participants during a program or while they are engaging in an activity. Observations tend to be time-consuming and can be too intrusive to participants and for this reason are used less often.

For instance, you could attend an information session on preventing falls for seniors and observe the kinds of questions being asked and how the program was being delivered. This can be useful for your process evaluation.

What are the best uses of observations?

- When you need accurate information about how a program is operating. Observing different group leaders for an activity can give you insight into how the program is being delivered. (Process)
- When you want very specific types of data collection, e.g., counting the number of seniors in a shopping mall who are using a cane or walker. (Outcome)

Tips for using observations:

- **Be clear about what you are observing and how you will use this data.**
- **Do not interfere with the program.** Participants should take little notice of you.
- **Make sure all observers are trained** in recording their observations. Observer bias can greatly influence what data is recorded.
- **Use other data for your evaluation as well.** Observations alone will not provide enough data to evaluate your program adequately.

When will the data be collected?

Usually observations are done while the program is being implemented. Observers will attend a session of the program and watch what is happening and take notes. It is best to decide ahead of time what to look for, but also to take notes on unexpected occurrences or comments.

Who will collect the data?

It is best to have trained observers collect the data. They need to be trained in observational methods and be aware of the types of observations that are most important to the evaluation. Again, you may want to check reliability between observers.

4) Case Studies

Case studies consist of describing in detail the experience of one person. Case studies are useful if you have very few participants, or for illustrating the program and participants' experiences in depth. You can use personal interviews to collect some of the in-depth information needed. Using insights from the program staff is also helpful.

The best use of case studies is:

- To gain in-depth information about a participant's experiences, impressions, and feelings about the program. (Outcome or Process)
- When you want a good example of the program's success. (Outcome or Process)

Tips for using case studies:

- **Choose participants that found the program useful and who have good insights.**
- **Write up the case study in a way that is easy to understand and read.**
- **Include important information and anecdotes.**

The table on the following pages summarizes the methods and tools for data collection.

Description of Methods and Data Collection Tools¹²

Method	When to Use	When Not to Use	Advantages	Challenges
Surveys or Questionnaires	<ul style="list-style-type: none"> - When you need standardized responses from a large number of people. - When you want easily measurable knowledge, attitudes, skills, environment, and/or behaviour information. - When you plan to compare changes in responses before and after an activity. - When you need to quickly and/or easily get lots of information from people in a non-threatening way. 	<ul style="list-style-type: none"> - When you need a lot of detailed information from a small number of people. - When you want to emphasize context richness rather than numbers. - When you need to tell a story. 	<ul style="list-style-type: none"> - Can complete survey anonymously. - Inexpensive. - Easy to compare and analyze. - Possible to administer to many people. - Can get lots of data. - Many sample surveys already exist. - Can collect quantitative data to be compared. 	<ul style="list-style-type: none"> - Might not get careful feedback. - Wording can bias client's responses. - Are impersonal. - In surveys, may need sampling expert (e.g., someone who can assist in choosing the individuals or groups who will receive the survey). - Does not get full story.
Focus Groups	<ul style="list-style-type: none"> - When you want to learn about consensus or disagreement on a topic. - When there is a small and homogeneous group of people that you want to interview together. - When you are looking for a range of ideas related to a complex topic. - When you want to tell a story. 	<ul style="list-style-type: none"> - When you do not have someone with appropriate skills to conduct the focus group. - When participants are not comfortable with each other. - When participants have had too little involvement or interest in the topic. 	<ul style="list-style-type: none"> - Can quickly and reliably get common impressions. - Can be an efficient way to get a range and depth of information in a short time. - Can convey key information about programs. 	<ul style="list-style-type: none"> - Can be hard to analyze responses. - Need good facilitator. - Difficult to schedule 6-8 people together.
Telephone Interviews	<ul style="list-style-type: none"> - For long-term follow up. - When it is difficult to get an entire group of people together at the same time. - When your target population has telephones. 	<ul style="list-style-type: none"> - When you need a lot of detailed information. - When anonymity is important for getting honest answers to sensitive questions. - When your target population does not have telephones. 	<ul style="list-style-type: none"> - Can get full range and depth of information. - Can develop a relationship with clients. - Can be flexible. - Can get a better response rate than mailed surveys. 	<ul style="list-style-type: none"> - Can take much time. - Can be hard to analyze and compare. - Can be costly. - Can bias client's responses. - Requires trained interviewers. - Provides less anonymity.
In-person Interviews	<ul style="list-style-type: none"> - To collect data from people with key information. - To have open-ended discussion on a range of issues. - To obtain in-depth information on an individual basis about perceptions and concerns. 	<ul style="list-style-type: none"> - When anonymity is important. - When you need quantitative information. 	<ul style="list-style-type: none"> - Can be used to discuss sensitive issues that interviewee may be reluctant to discuss in a group. - Can probe individual experience in depth. 	<ul style="list-style-type: none"> - Can be time consuming. - Can bias client's responses. - Can be hard to analyze and compare. - Requires trained interviewers. - Provides no anonymity. - Can be costly.

¹²Adapted from Storoschuk et al, 2001.

continued...

Method	When to use	When not to use	Advantages	Challenges
Document Review	<ul style="list-style-type: none">- When you want to know about implementation of a program.- When you want data from outside your program to compare (e.g. Statistics Canada)	<ul style="list-style-type: none">- When you are not sure if the data or information is reliable and/or valid.	<ul style="list-style-type: none">- Can get comprehensive and historical information.- Does not interrupt program.- Information already exists.- Few biases.	<ul style="list-style-type: none">- Can take time to document.- Information may be incomplete.- Requires good and consistent recording skills on the part of program staff.- Data restricted to what already exists.
Observations	<ul style="list-style-type: none">- To see firsthand how an activity operates and how the program is being implemented.	<ul style="list-style-type: none">- When your presence would be disruptive to the participants.	<ul style="list-style-type: none">- Provides firsthand knowledge of a situation.- Can discover problems that parties are unaware of.- Can produce information from people who have difficulty verbalizing their points of view.- More objective.	<ul style="list-style-type: none">- Can affect activity being observed.- Can be time consuming.- Can be labor intensive.- Not always easy to code and analyze observational data.
Case Studies	<ul style="list-style-type: none">- To fully understand or depict client's experiences in a program.	<ul style="list-style-type: none">- When you have large numbers of participants.	<ul style="list-style-type: none">- Can fully depict client's experience with program input, process and results.- Powerful means to portray program to outsiders.	<ul style="list-style-type: none">- Can be time consuming to collect, organize and describe.

Worksheet 8: How will you collect your data?

Objective:

What specific knowledge, skill, attitude, environment or behaviour are you measuring? What specific questions are you trying to answer?

How will you collect the data/info?*(Specific data collection instruments)	Who will collect the data/info?	When will you collect the data/info?	Where will you collect the data/info?

**Will you use a survey/questionnaire, counting system, focus group, personal interview, document review, and/or other method to collect your data?*

STEP 4 ANALYZE AND INTERPRET YOUR DATA

You have collected the data you need for your evaluation. Now what? This section describes the steps for interpreting both quantitative and qualitative data.

Data analysis can be very intimidating. But do not panic! It is only a way of organizing numbers so you can explain what happened in your program and check if you have met your objectives. You will see how you can use simple math to show differences and similarities in the answers which participants gave to the survey or interview questions.

If you have quantitative data from surveys or questionnaires, you will want to code it, enter it into a computer database and analyze it. If you have qualitative data from focus groups and interviews, you will want to code it by looking for similar responses and then summarizing your findings.

The first step in interpreting your data is to decide if you have the time and ability to do this yourself or if you will need to get outside help from a consultant. Find someone as soon as possible so that they can have input from the beginning of the program on how to systematically track the data you will be collecting. It will be a lot more difficult to make sense of your data if you have not carefully planned how to ask the evaluation questions and analyze the data.

To analyze your data you will need the following resources:

- A computer with database software and analyses capabilities. Examples of software packages are Excel, Access, SPSS, and SAS.
- Someone who knows how to create a computer database file where you can enter your data.
- Someone who knows how to code and enter data.
- Someone who knows how to use statistical packages to analyze data.
- Someone who can interpret the results.

If you cannot find someone within your organization who is willing to assist with each of these, then you will need to find a consultant willing to take on one or more of these tasks, or get training from your local community college or technical institute.



(For more information, see Appendix 2 - Hiring an Outside Evaluator).
If you have questions, contact the BC Injury Research and Prevention Unit at (604) 875-3776 or injury@cw.bc.ca.

The major steps involved in the data analysis processes are:

- Preparing the data for analysis.
- Analyzing the data.
- Interpreting the results.



The following are a few things to remember when looking at your quantitative and/or qualitative data:

- **Regularly refer back to your objectives to determine how to focus your data analysis.** You want your data analysis to show if and how well you accomplished your objectives. You can best do this if you plan for your data analysis from the beginning of the evaluation process.
- **Be consistent in how you analyze your data.** If you decide that it is important to compare males and females, then do this for every question on the survey/questionnaire. If you decide to describe your results in percentages, then try to do this with the majority of your data so that the reader does not become confused.
- **Keep backup copies of your data.** It is easy to erase or change data while working with it on the computer. It is always best to have extra copies of the original data.
- **Use tables and graphs to display the results that you find.** These are visual ways of describing your results that can make them easier to understand and explain.
- **Explore different ways of looking at your data.** Sometimes data can be used in more than one way. For example, questions on a survey can be looked at in terms of how each gender answered, how different age groups answered, or how people living in different regions answered.
- **Compare the results of your data analysis to your objectives.** Did you meet the requirements for success?

- **Did you find unexpected results?** Pay attention to data that was interesting but unexpected. For example, even though your program targeted reducing falls in seniors by having them take their medications to the pharmacist for review, you may find from your focus groups that because of your program many seniors are now taking their pills more regularly.

Analyzing Quantitative Data

Quantitative data is objective and can be compared statistically. It can be simple or complex depending on how you use the information, how much data you have and whether you need or want to report on the statistical significance of the findings. Statistically significant means that it is unlikely that a group of individuals would give the same response by chance. For our purposes we will keep this simple.

The steps involved in analyzing quantitative data are:¹³

- **Make a master copy of your data** and store it separate from your working copy. Sometimes accidents can happen. Always keep a master copy of your data.
- **Organize your data in a database.** Usually the question number goes across the top (a column for each question) and the participant numbers down the side (a row for each participant).
- **Tabulate the data**, that is, add up the number of ratings, rankings, yes's, and no's for each question.
- **Consider calculating means, or averages** for ratings and rankings, for each question. For example, "For question #1 the average ranking on a scale from 1 to 5 was 4.2".
- **Calculate t-tests and chi-squares using a computer.** If you want stronger statistical tests to show if changes are significant, you can use computer programs to do simple tests such as t-tests and chi-squares. (This may require help from a data analyst).
- **Report ranges of answers.** When writing your final report, it is important to write the results but it is also important to report the range of answers, e.g., 20 people ranked "1", 30 ranked "2", 20 people ranked "3", etc. This allows your readers to see how responses were distributed.

¹³Adapted from Storoschuk et al, 2001.

The following table provides examples of how to analyze your quantitative data.

Statistical Ways to Analyze Quantitative Data¹⁴

Frequency	<ul style="list-style-type: none"> • This describes the number of times a particular response occurs. To calculate frequency you simply add the number of times a response occurs. • For example, the number of participants who choose each response to a question. <ol style="list-style-type: none"> 1. What age group do you fit in? <ul style="list-style-type: none"> <input type="checkbox"/> 55 to 65 years <input type="checkbox"/> 65 to 75 years <input type="checkbox"/> over 75 years <p>Frequency is the number of respondents who checked the 55 to 65 years box, the number who checked the 65 to 75 years box and the number who checked the over 75 years box. There are 45 participants. 15 checked 55 to 65 years, 18 checked 65 to 75 years, and 12 checked over 75 years. So the frequencies are, 15, 18, and 12, respectively.</p> <ol style="list-style-type: none"> 2. Having your medication reviewed by a pharmacist can help decrease your chances of falling. <table style="margin-left: 40px; border: none;"> <tr> <td style="text-align: center;">Strongly Disagree</td> <td style="text-align: center;">Somewhat Disagree</td> <td style="text-align: center;">Don't know</td> <td style="text-align: center;">Somewhat Agree</td> <td style="text-align: center;">Strongly Agree</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> </tr> </table> <p>Count the number of participants who respond to each point in your scale. For example, there were 25 participants: 4 responded “strongly disagree”, 9 responded “somewhat disagree”, 5 responded “don’t know”, 4 responded “somewhat agree”, and 3 responded “strongly agree”.</p> 	Strongly Disagree	Somewhat Disagree	Don't know	Somewhat Agree	Strongly Agree	1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Don't know	Somewhat Agree	Strongly Agree							
1	2	3	4	5							
Percentage	<ul style="list-style-type: none"> • This describes the proportion of times a particular response occurs. • It is the number of times a particular response occurs (frequency) divided by the total number of responses, and then multiplied by 100. <p style="margin-left: 20px;"><i>Frequency / Total no. x 100 = percent</i></p> <p>Example:</p> <p>Using question #1 in the frequency example above, you have 45 participants. 15 - 55 to 65 years, 18 - 65 to 75 years, and 12 are over 75 years.</p> <p style="margin-left: 20px;">15/45 x 100 = 33% are 55 to 65 years 18/45 x 100 = 40% are 65 to 75 years 12/45 x 100 = 27% are over 75 years</p> <p>For question #2, the percentages for the response rates would be as follows:</p> <p style="margin-left: 20px;">4/25 x 100 = 16% responded Strongly Disagree (1) 9/25 x 100 = 36% responded Somewhat Disagree (2) 5/25 x 100 = 20% responded Don't Know (3) 4/25 x 100 = 16% responded Somewhat Agree (4) 3/25 x 100 = 12% responded Strongly Agree (5)</p> <p>Note: the percentages should add up to 100%.</p> 										



¹⁴Adapted from Storoschuk et al, 2001.

<p>Mean</p>	<ul style="list-style-type: none"> • This is the average • It is the sum of the responses divided by the total number of responses. $\frac{\text{Sum of responses}}{\text{Total no. responses}} = \text{mean}$ <p>Example:</p> <p>Using question #2 in the frequency example above, you had 25 participants: 4 responded “strongly disagree”, 9 responded “somewhat disagree”, 5 responded “don’t know”, 4 responded “somewhat agree”, and 3 responded “strongly agree”. You have already scored the 5 responses on a scale of 1 to 5. Therefore,</p> $(1+1+1+1) + (2+2+2+2+2+2+2+2+2) + (3+3+3+3+3) + (4+4+4+4) + (5+5+5) = 68$ $68/25 = 2.72 \quad \text{The mean is 2.72}$ <p>The mean tells you that the majority of the participants were more likely to respond that they disagreed and don’t know then agreed with the statement or question.</p>
<p>T-test</p>	<ul style="list-style-type: none"> • This compares two sets of data to determine if there is a difference between their mean or average scores, or, if it is just due to chance. • This can be used to compare pre-survey data and post-survey data to see if there is a statistically significant change in participants’ knowledge, skills, attitudes, environment and/or behaviours. • It can be used to compare different groups, for example, males and females, youth and adults, control and experimental. • T-tests are complicated to calculate; therefore it is best to use a computer. You may want to ask a consultant for help.

How do you interpret your results?

Now that you have numbers and data about your program’s success, how do you tell others about these results?

The following are some tips and examples on how to interpret your data:

- **Keep it simple.** Trying to impress others with complicated explanations and numbers only results in confusion.
- **Refer back to your objectives to see if you met them.** Discuss reasons why or why not.
- **When discussing change, talk in terms of percent change.** For example,

there was a 32% increase in knowledge about preventing falls; 14% of the youth changed their behaviours.

- **Be sure to include any unanticipated results**, both positive and negative, and possible reasons for their occurrence.
- **Make the numbers meaningful.** Add statistics to your discussion only if they are relevant to your evaluation and your program.

Example:

Using the data from Question #2 in the examples used in *Statistical Ways to Analyze Quantitative Data* table above, here are some examples of how to interpret your results.

Question #2 is a statement designed to measure beliefs and attitudes:

2. *Having your medication reviewed by a pharmacist can help decrease your chances of falling.*

It would be administered both before and after the program has been carried out. The data in the above example is from the pre-test. It showed that the majority, or 52%, strongly or somewhat disagreed, and less than one-third (28%) strongly or somewhat agreed with this statement. Twenty-percent stated that they don't know.

After the program was carried out the survey was given again and the following results were found for Question #2:

2/25 or 8% responded Strongly Disagree (1)

6/25 or 24% responded Somewhat Disagree (2)

2/25 or 8% responded Don't Know (3)

9/25 or 36% responded Somewhat Agree (4)

6/25 or 24% responded Strongly Agree (5)

The mean or average is $(2 \times 1) + (6 \times 2) + (2 \times 3) + (9 \times 4) + (6 \times 5) = 86$

$86/25 = 3.44$

Therefore, the results can be interpreted in the following way:

First of all, present the results in a table:

	Strongly Disagree (1)	Somewhat Disagree (2)	Don't Know (3)	Somewhat Agree (4)	Strongly Agree (5)
Pre-test	4 (16%)	9 (36%)	5 (20%)	4 (16%)	3 (12%)
Post-test	2 (8%)	6 (24%)	2 (8%)	9 (36%)	6 (24%)
Percent Change	-8%	-12%	-12%	+20%	+12%

Next, determine if the changes were in the direction that you wanted. In this case you wanted people's attitudes to change towards agreeing with the statement. In fact, they did. The greatest changes were in increasing the agreement response rates.

So how do we say this?

1. State the population you are talking about.

Twenty-five people responded to a questionnaire sent before and after a falls prevention program was carried out in their community.

2. Describe the question and the results found.

They were asked to respond to the following question, "Having your medication reviewed by a pharmacist can help decrease your chances of falling", using a five-point scale where "1" means "Strongly Disagree" and "5" means "Strongly Agree". Before the program was implemented half of the respondents (52%) somewhat or strongly disagreed with this statement, while 20% stated they did not know and only 28% somewhat or strongly agreed. However, after they participated in the program this had changed so that almost two-thirds somewhat or strongly agreed (60%) and only 32% somewhat or strongly disagreed and 8% did not know. In addition, the mean score increased from 2.72 before the program to 3.44

after. Although this may not be a large change, it is a change in the desired direction.

3. Draw conclusions based on these results.

From the results we conclude that there was a shift in attitudes and beliefs amongst the 25 people who responded to our survey from disagreeing that a medication review by a pharmacist can help decrease chances of falling to agreeing with this statement. This would suggest that our program may have changed the beliefs of some of the people who participated.

As you can see, this is not an exact science. There are no right and wrong ways of presenting your results. What you should keep in mind are what questions you are trying to answer. It is recommended that a t-test be done to see if these results are significant, but this is beyond the scope of this manual.



Exercise

The following data were collected from a survey about preventing falls after seniors attended the program. Please answer the questions following the data.

24 surveys filled out. 10 males, 14 females

ages: males 55, 63, 72, 81, 89, 75, 76, 64, 68, 71
 females 75, 84, 68, 65, 59, 71, 72, 78, 63, 66, 70, 74, 73, 69

The following answers were given to the following questions:

How important was the program in making you more aware of the reasons why you might fall?

	Males	Females	Totals
Very Important	(3) 30%	(5) 36%	33%
Important	(4) 40%	(3) 21%	29%
Somewhat Important	(2) 20%	(4) 29%	25%
Not at all Important	(1) 10%	(2) 14%	13%

What changes did you make to your behaviour or environment?

Changes	Males	Females	Totals
Rugs	(4) 40%	(4) 29%	33%
More careful	(4) 40%	(3) 21%	29%
Better shoes		(3) 21%	13%
Storage	(1) 10%	(1) 7%	8%
Don't stand on chairs/ladders		(2) 14%	8%
Handrails	(1) 10%	(1) 7%	8%

How important was the program in reducing your number of trips, near falls and falls?

	Males	Females	Totals
Very Important	(1) 10%	(1) 7%	8%
Important	(2) 20%	(3) 21%	21%
Somewhat Important	(4) 40%	(6) 43%	42%
Not at all Important	(3) 30%	(4) 29%	29%

(Exercise continued...)

Use the data on the preceding page to answer the following questions:

1. What percent of the respondents are female? Male?
2. What is the average age of the survey respondents?
3. What were the most common changes participants made to their behaviour and environment?
4. What were the differences between the males and females in how important they thought the program was in making them more aware of the reasons why they fall?
5. What percent of the females thought the program was very important and important in reducing their number of trips, near falls and falls?
6. Were there any differences between the males and females about how important they thought the program was in reducing their number of trips, near falls and falls?
7. Do you think the program was effective? Why or why not?
8. Write a few sentences to interpret the above data.

(See Appendix 5 for answers.)

Other Factors that can Influence your Results

External factors can sometimes affect the results of your evaluation and account for the changes seen in your participants during your intervention. You can not have control over everything happening outside of your program. We will discuss three factors that can influence your results: history, maturation and attrition. It is important to be aware of these and to discuss them in your report.

History

History is the significant, unplanned event that may affect the participants.

For instance, you are conducting a falls prevention program that involves seniors attending 4 educational sessions over one month. During the third week of your program the BC Ministry of Health sends out a booklet to all households on improving the health of British Columbians. Chapter 5 is on preventing falls in seniors. At the end of your 4 week program you find that 85% of the seniors did one or more of the activities you suggested to help prevent falling. Can you confidently say that this change may be due solely to your program? No.

However, if you were also surveying a similar group of seniors who did not attend your program (a comparison group), and the results between the two were different, then you could be more confident in saying that the change was due to your program.

Maturation

Maturation is the natural, biological, social or behavioural changes that occur among the participants during the program.

For instance, a number of your seniors experience declining health due to a flu epidemic. One of the symptoms is dizziness. At the end of your program, some of your participants actually report an increase in falls over the period of your program. This difference may be partly due to the illness of the seniors and not because your program did not work.

Again, you can control for the effect of maturation by using a comparison group. If your comparison group is similar to your intervention group, it's likely the same proportion of seniors would have become ill with the flu.

Attrition

Attrition is the loss of subjects during your program and/or evaluation.

Attrition is a problem when the participants that drop out of your program or do not answer your evaluation surveys are different in some dimension from those that stay in your program or do answer your surveys.

For example, you gather information by surveying seniors at a community centre. You find that fifty seniors attend your first session for a falls prevention program, but at your next 4 sessions only about 20-25 attend. Why? It turns out that about a third of the seniors are not native English speakers and did not understand everything that was being talked about. This can skew your results by creating a biased group, that is, mostly English-speaking seniors.

Sometimes people just lose interest or do not feel committed to participating. You can try offering incentives so participants will want to stay in your program or fill out your survey. The goal is to keep as many participants in the study as started, and to try to get as much data from them. Always try to find out why a participant has dropped out.

Analyzing Qualitative Data

Qualitative data reflects the subjective experience or perspective of the participants. It is not usually compared statistically and most likely consists of written transcripts from focus groups or interviews. The first step is always to transcribe the focus groups or interviews verbatim. Then you should look for themes and patterns of what participants said.

The following are steps to use in analyzing qualitative data¹⁵:

- **Read through the whole interview transcript.** Note: Don't wait until *all* of your interviews are completed – qualitative analysis begins as soon as your research does. This way you can add or change questions to get better data, or to follow up hunches that you're developing.
- **Code and categorize the ideas.** Go through the transcript line by line. Every separate idea expressed by the participant should be noted. You can label these ideas using either your participant's or your own words—this is called “coding” your data. (It is helpful to use color coding with highlighter pens). You will find that several of these “codes” naturally seem to hang together into larger units or categories. Some codes remain isolated, but they are repeated often enough to be upgraded to category status. The presence of other codes will confuse you, as they don't seem to “fit”. In this case, you can decide whether or not it is relevant to your evaluation goals and objectives. If it is not—ignore it. You can always return to your transcripts for further analysis later, should you need to. If it is relevant, you can add more probing questions to your next interviews to get more details.
- **Understand what the participants are telling you.** As you work through the transcript noting ideas and grouping them together, you will find that you are developing a larger understanding of what your participant is telling you. This understanding is what you take with you to your next interview transcript, constantly checking for fit. When fit does not occur, don't force it – let the data continue to speak for itself. You may find that your original concept of the theme was not quite accurate enough and needs to be revisited. This is how a good understanding of the data grows.
- **Find the themes.** Eventually, you will have enough of an understanding of the data to reduce it down to a few “themes”. These themes will provide you with the answers to your evaluation questions. A major advantage of qualitative evaluations is that you will also have an appreciation of the reasons behind the answers. It is this depth of understanding that makes all the extra work of qualitative analysis worthwhile.
- **Use quotes as examples.** Look for quotes that will provide a good example of the theme that you have identified. Remember that this process is very subjective; it is important to give your readers some evidence to justify your conclusions.

¹⁵Adapted from Storoschuk et al, 2001.

STEP 5 USE AND REPORT THE EVALUATION FINDINGS

The final step in the evaluation process involves reporting the results. It is important to use the results of your data analysis to explain whether or not your program was successful. After all, this is the main reason for evaluating your program. This section will provide more information on how to best report your findings as well as use tables and graphs in your report or presentations.

Many different individuals or groups will be interested in finding out about your program and its success. The following are things to remember about your evaluation report:

- Avoid conclusions that are not grounded in valid data.
- There are different ways of presenting your evaluation results. For example, a written report or presentation.
- You will want to use the information that you gathered in a way that will benefit your program, the participants, and the individuals involved in delivering the program. However, do not exclude negative results that may be important to improving your program.
- An evaluation is a learning process and as a result, it is important that you do something about what you learned.
- Overall, any report should be accurate, balanced and fair.
- It should be completed in a timely manner to provide useful feedback.



Who is the audience for your report?

The audiences for your evaluation report are the different individuals or groups mentioned earlier in this manual who are interested in knowing if your program worked.

In writing your report or preparing your presentation, it is important to consider the following factors:

- Who is your audience and what type of information are they interested in?
- What is the level of detail that they would find useful?
- How often do you need to report results?
- What level of language should you use?
- Who your audience is will also determine how often you should report on the outcome of your evaluation. For example, some groups will only be interested in the final outcome or results of your evaluation. Other groups such as staff or board members may wish to have more regular updates on where you are in the evaluation process.

The audience(s) for your report might include:

- your staff or supervisors
- community members or the general public
- other organizations
- government agencies
- existing or potential funding sources
- current or potential program partners
- board members for your organization
- school boards
- media
- research and evaluation agencies, e.g., BC Injury Research and Prevention Unit or the Office of Injury Prevention staff.

What is the purpose of an evaluation report?

An evaluation report can serve several different purposes depending on the audience and why they need the information. This also means that a report may be written or presented in different ways, depending on the audience. For example, an evaluation report can be used to:

- Document the process and outcomes of your program;
- Develop new programs or expand your current program;
- Improve staff morale;
- Maintain current funding or ask for new or additional funding;
- Convince or gain support from other agencies or potential partners;
- Recruit new people, volunteers, or potential employees for your program;
- Promote understanding or educate the community about your program and the issues it addresses;
- Provide information to individuals who are involved in implementing similar types of programs;
- Explore the issues which underlie the need for your program and present information about these;
- Show a funding agency or stakeholder groups that you are accountable for how you chose to implement your program and use your resources;
- Promote public relations, particularly with your community or the general public.

How can you present your report?

You can report your evaluation results in a number of different ways. How you report depends on who your audience is and what they would like to know about the evaluation process and what you learned. You can report your results in a written report, as a presentation, or as a combination of the two.

For example, written reports can include:

- Executive summary followed by a full report

Stakeholder.

A person or group of individuals who have a direct or indirect interest or investment in a project or program.

Executive Summary.

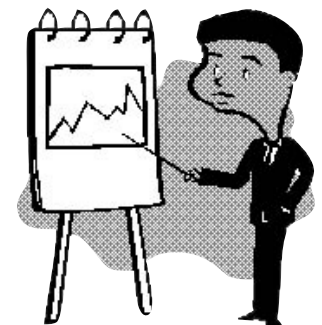
A summary statement or overview of the contents of a full length report.

STEP 5

- Executive summary followed by a few key tables, graphs and data summaries
- Executive summary only (data available upon request)
- Scientific journal article
- Newspaper article
- Newsletter
- Press release
- Brochure
- Office memorandum
- Poster at BC Injury Prevention Conference

For example, oral presentations can include:

- Brief oral presentation with some charts
- Short summary followed by questions
- Discussion groups based on prepared handouts that focus on specific issues
- Work sessions or workshops
- Video or audio tape presentation
- Web-site
- Powerpoint presentations
- Written and oral combinations



Worksheet 9: Who is the audience for your evaluation report?

Who is your audience?	What information would they like to receive?	What is the best way of presenting the evaluation results?
Audience #1		
Audience #2		
Audience #3		
Audience #4		
Audience #5		

What goes into a written evaluation report?¹⁶

Preparing your evaluation report begins before you actually start to write the report. In completing the previous exercise, you have started to prepare your report. As you carry out your evaluation, keep careful notes of the activities that were part of the evaluation. As well, keep careful notes of the different decisions that you made about how you would carry out the evaluation. These will be important as you write your report.

A full, written evaluation report generally has eight major sections. The length of the report and each of the sections depends on the amount of detail that you think is important for your audience.

Section 1: Table of Contents

This section tells the reader what they will find in the report and where they will find the information. It includes a list of all the major sections, the major headings under each section, the appendices, and their page numbers.

Section 2: Executive Summary

This is the first section of the report. It is a two to three page summary of the report and presents the highlights of the evaluation. In this section, you should briefly describe what was evaluated and why, the basic results, and your recommendations.

Section 3: Introduction

This section outlines the purpose of the evaluation. That is, it describes the evaluation questions that you were trying to answer. It also describes the program that you were evaluating, its goals and objectives, and who was involved in the program. It may also contain some historical or background information about how the program first started and how it was funded. If your evaluation focused on both process and outcomes, then you should outline the reasons for this and what you hoped to accomplish in carrying out the program.

Section 4: Evaluation Plan and Procedures

This section describes how you conducted your evaluation. It contains information on the goals and objectives of the evaluation. It describes the evaluation methodology; that is, how did you carry out the evaluation? And, how well did it work? It contains information about the tools, for example your questionnaire or your inter-

¹⁶Adapted from Storoschuk et al, 2001

view questions, that you used to collect information. You should also describe how you developed these tools. Or, if the tools were borrowed from another study or organization, describe this and your reasons for using these tools. This section will contain answers to the following types of questions: Did you use a questionnaire that some other agency had already developed? If so, why did you use this questionnaire? If you developed your own questionnaire, what steps did you follow? Did you pilot test the questionnaire? If you developed your own interview questions, what process did you use to decide which questions to ask? What questions did you ask? Did you train the interviewers to ask the questions? Finally, how well did these tools work in collecting the information that you thought were important?

This section also describes your methods or how you collected the information. For example, if you interviewed people as part of your evaluation, you will describe how many people you interviewed, who they were, who did the interviewing, and how long it took to do all the interviews. If you sent out a questionnaire, you will describe how many people were sent a questionnaire, how many people returned their questionnaire, who received questionnaires and why these people were chosen. If you used focus groups, you will describe how many groups you used. You will also describe who participated in the groups, why and how these people were chosen, who facilitated the sessions and how the facilitator was trained.

In the appendix at the end of the report, include a copy of all the tools that you used.

Section 5: Analysis

This section contains information about how you analyzed your information. That is, this section describes the strategies and statistical procedures that you used in order to make sense of all the information that you collected. Did you calculate frequencies, and/or means? Did you use t-tests to compare groups or pre- and post-surveys?

Section 6: Results

This section outlines the results. Using the analysis strategies, what did you find out? For example, if you used a questionnaire, how did people respond? If you interviewed people, what did they say? In writing about your results, think carefully about what information is important. This information should relate back to the goals and objectives of the program as well as your evaluation. You may also want to look for different patterns in the responses or any recurrent themes, particularly in interviews.

This section will also contain any tables, graphs or charts that are helpful in illustrating or describing your results. In presenting these, it is also important to interpret what these mean for the reader. That is, for each graph or chart that you use, it is important to describe what the graph or chart illustrates or means.

If you interviewed people or used focus groups and if you have some direct quotes from what people said, include these in your results. In using direct quotes, it is important that the quote illustrates or supports the results or findings. Also, in using a direct quote, it is very important to make sure that the person who made the comment cannot be identified.

In some cases, you may discover unintended findings as part of your results. That is, there may be results that you did not anticipate. It is important to report these results and also provide possible reasons as to why these results occurred. For example, there may have been external events or factors that had an impact on your evaluation study. And it may not have been possible for you to do anything about these. It is, however, important to note these in your results.

In this section you will also want to note whether or not there are any limitations to your evaluation. This means, to what extent could your findings apply to participants or individuals in other programs similar to yours. It may be that your findings are unique to the participants in your program. Preferably, your results should be generalizable. That is, your results should apply to many other people participating in programs similar to yours, given the same kind of circumstances.

Section 7: Conclusions and Recommendations

This section contains a summary of the evaluation and comments on how well the goals and objectives of the program were reached. As a summary, this section involves making some conclusions based on the results. In writing your conclusions, there are two important questions to keep in mind: Can you be sure that your program activity caused the results? And, how encouraging are the findings?

In organizing your conclusions, you might comment first on the strengths. That is, what were the successes and why are these important? Then, comment on the weaknesses of the program, based on the results from the evaluation. That is, what areas of the program need improvement and why? If you are commenting on how effective your program is, include information on the standard or criteria that you are using to

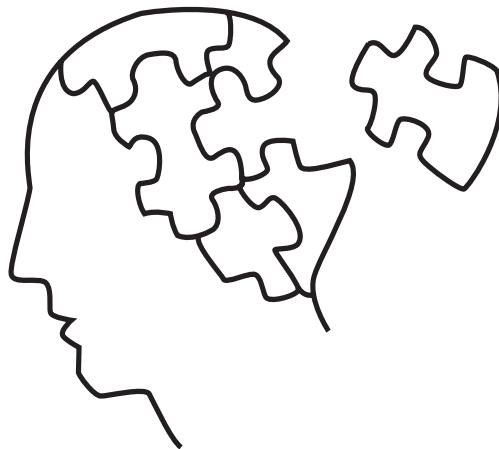
make this type of judgement. That is, if your program is successful, what is the measure that you are using to say that your program is effective? This goes back to the measures of success that you had chosen when you were first planning your program.

It is also helpful in this section to include a description of the lessons learned. That is, despite whether or not your program was successful, what are the important things that you learned that will improve the program for next time?

Based on the results and the conclusions, it is then possible to make your recommendations. In your recommendations, you will answer questions such as: Should the approach of your program be changed? If so, in what way? Should your program change its activities and why? Should there be different staff involved in delivering the program? Should there be any changes in how the budget is allocated to various parts of the activity? Would the activity be effective with other groups of participants? If so, with whom and how should it be replicated? The recommendations provide valuable information on what you will do differently in planning the future of the program.

Section 8: Appendices

The appendices contain the following types of information: copies of any evaluation tools such as questionnaires or interview questions, detailed tables of evaluation results, the references or bibliography, or other details that people might be interested in but which are not required in the main part of the report.



Report Checklist

- Decide who your audience is.

Section 1: Executive Summary

- Provide a two to three page summary of the highlights of the evaluation.
- Briefly describe what was evaluated and why, the basic results, and your recommendations.

Section 2: Table of Contents

- Tell the reader what information is there and where they will find it.
- Provide a list of all the major sections, the major headings under each section, the appendices, and their page numbers.

Section 3: Introduction

- Outline the purpose of the evaluation and describe the evaluation questions that you were trying to answer.
- Describe the program, its goals and objectives, and who was involved in the program.
- Provide historical or background information and how it was funded.
- Provide reasons for doing process and/or outcomes evaluations.

Section 4: Evaluation Plan and Procedures

- Describe how you conducted your evaluation.
- Provide information on the goals and objectives of the evaluation.
- Describe the evaluation methodology.
- Describe information about the tools that you used to collect information.
- Describe how you developed these tools.
- Discuss how well the tools worked in collecting the information that you thought was important.
- Describe how you collected the information.

Section 5: Analysis

- Describe the strategies and statistical procedures that you used in order to make sense of all the information that you collected.

Section 6: Results

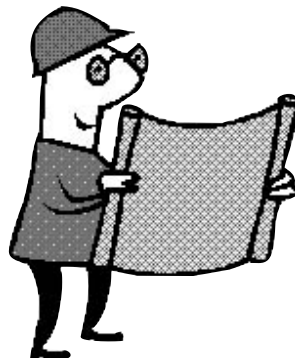
- ❑ Outline the results, that is, what you found out.
- ❑ Include any tables, graphs or charts that are helpful in illustrating or describing your results.
- ❑ Report and explain any unintended findings.
- ❑ Note any limitations to your evaluation.
- ❑ Assure anonymity and confidentiality.

Section 7: Conclusions and Recommendations

- ❑ Provide a summary of the evaluation.
- ❑ Determine how well the goals and objectives of the program were reached.
- ❑ Ensure conclusions are based on the results.
- ❑ Describe strengths of the program, that is, what were the successes and why these are important.
- ❑ Describe weaknesses of the program, based on the results from the evaluation. That is, what areas of the program need improvement and why?
- ❑ Describe lessons learned.
- ❑ Make recommendations based on the results and the conclusions.
- ❑ Describe next steps.

Section 8: Appendices

- ❑ Include copies of any evaluation tools such as questionnaires or interview questions.
- ❑ Include detailed tables of evaluation results.
- ❑ Include references or a bibliography.
- ❑ Include other details that people might be interested in but are not required in the main part of the report.



What goes into a presentation?

Your presentation should include most of the elements of the written report but in a shorter, simpler form. How much information you can include will depend on how long the presentation is. You should be able to summarize the evaluation in about 20 to 30 minutes. However, in some cases you may only have 10 minutes. You will need to highlight the most important findings.

In your presentation, include the following elements:

Introduction

- ❑ Background information
- ❑ Program goals and objectives
- ❑ Who conducted the evaluation

Evaluation Plan and Procedures

- ❑ Describe if you carried out a process and/or outcome evaluation
- ❑ Describe how you conducted the evaluation
- ❑ Describe the methods and tools that you used

Analysis and Results

- ❑ Briefly explain the analysis
- ❑ Briefly describe the most important and relevant results
- ❑ Use graphs and tables to explain results
- ❑ Describe the limitations of the evaluation

Conclusions and Recommendations

- ❑ Summarize the program's success according to your results
- ❑ Explain why it was successful
- ❑ Summarize successes and failures
- ❑ Describe lessons learned
- ❑ Discuss recommendations

Next Steps

- ❑ Describe what you plan to do with the results



What do you do now?

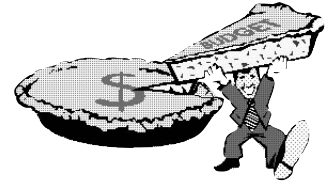
As described earlier in this manual, one of the most important principles of evaluation is utilization. That is, one of the important outcomes of undertaking an evaluation is doing something with the results. What will you do differently as a result of what you learned? What changes will you make to your program? How will you make these changes? What kind of a future will you, as administrators and staff, plan for your program and the people involved in delivering the program?

Use your evaluation findings to do the following:

- **Disseminate or provide information** to individuals inside your organization as well as the community or individuals working in other organizations who are interested in your program and its outcomes.
- **Make changes or improvements** to your current program or in planning your next project.
- **Educate and orient new members** to your program, its goals and objectives, and the different activities.
- **Identify training needs** or any technical assistance that you may need.
- **Publicize** what your group has done on specific issues; make information that you learned about the evaluation available to the public.
- **Make policy** or provide information to government organizations that make policy that has an impact on the kind of work that you do.
- **Make day-to-day operational or administrative decisions** about how your program is run.
- **Make decisions about continued or additional funding**, whether from your current sponsor or from other organizations or agencies.
- **Start a critical discussion** about the work your group is doing and the programs or activities that you provide. As noted earlier, evaluation is a learning process. The intent is not to criticize. The intent is to look at how things can be improved.
- **Plan actions or activities** in response to specific issues.
- **Redefine your program's goals and objectives.** Clearly define what you want to do and why you want to do it and decide who will be involved.



- **Make decisions about your budget and the resources** that you need to deliver your program.
- **Prove that your program is worthwhile** and that it should be continued to groups, communities and other funding agencies.
- **Acknowledge your group's work** and the benefits of this work for the larger community.



Worksheet 10: What are your next steps?

Once you have finished your evaluation, what are your next steps?
What changes do you anticipate that you will make to your program?
Who will you involve in making these changes?
What kind of resources will you need?

Glossary: Definition of Terms¹⁷

Baseline. Facts or data that describe a group of people before they become involved in or participate in a treatment or an intervention (e.g., program).

Benchmark. A starting point or baseline information that is necessary to measure the kind and level of change that has taken place as a result of participation in a program.

Data. Information collected to support a decision. Quantitative (numerical) and qualitative (non-numerical) information are important in program evaluation.

Demographic Data. Information that describes the population, usually on age, gender, education level, income level, location, and cultural background.

Descriptive Statistics. Information that describes a population or sample. Usually, these statistics use averages or percentages to describe a group of people.

Effectiveness. The ability of a program to achieve its stated goals and objectives and achieve the outcomes that it had identified. Assessing effectiveness is one of the major functions of program evaluation.

Evaluation. The process of gathering information or data that provides evidence that a program is meeting its goals and objectives. Based on this information, individuals or groups can judge or make an assessment about a program and can make decisions about how a program can be improved. Evaluation can also mean estimating or formatting an opinion based on data.

Evaluation Plan. A document that outlines what you will be evaluating, the type of evaluation (i.e., process and/or outcome), the target population, available resources, the steps in carrying-out the study, the tools used for collecting information, timelines, and how the findings will be used.

Executive Summary. A summary statement or overview of the contents of a full length report.

¹⁷Adapted from Storoschuk et al, 2001

Focus Group. Usually 7-10 people, with similar characteristics, that come together to provide information by discussing a specific topic. A trained facilitator keeps the discussion on track, provides targeted questions, and creates a non-threatening environment.

Goals. A general statement of what a program is trying to achieve or accomplish overall.

Indicators of Success. The identifiable changes that will occur as a result of participating in a program.

Measurement Tools. Questionnaires, surveys, or structured interviews which are used to collect information. Tools or instruments can be created specifically for the purpose of an evaluation or they can be adopted or adapted from other evaluation studies.

Needs Assessment. A systematic process for identifying discrepancies between current and desired conditions. Discrepancies often serve as a basis for developing program objectives.

Objectives. Specific, measurable statements of what an organization wants to accomplish within a stated period of time. Objectives usually describe what will be accomplished, by whom, when, under what conditions, and how success will be measured. They also describe immediate outcomes of a program's activities.

Outcome Evaluation. Information is collected to describe the immediate or direct effects of a program's activities. It assesses the immediate effects of the program on the target population and usually looks at changes in participants' knowledge, skills, attitudes, environment and/or behaviours that are the result of the program activity. Outcome evaluation looks at **how well** the program reached its goals.

Process Evaluation. Information is gathered on the activities that were implemented to achieve the established goals and objectives. It measures how, when, and which program activities were implemented. The intent of process evaluation is to make changes to the activities to ensure that goals and objectives will be reached in future programs. Process evaluation looks at **how** the program is being used to reach its goals.

Qualitative Data. Information that provides a description of the circumstances and conditions of the situation, work, event, or problems, for the purposes of making an assessment. Information usually reflects the feelings, beliefs, and impressions of people participating in the program. Information is usually non-numerical and is often collected through interviews.

Quantitative Data. Information that provides an account of the scope of the problem, work or event based on numbers or statistics. Quantitative data can be used to show that results are statistically significant. Information is usually collected by using questionnaires or surveys or structured interviews.

Random Sampling. Drawing a number of items of any sort from a larger group or population so that every individual item has an equal chance of being chosen.

Reliability. The extent to which a measure produces the same result, time after time, across different venues or different raters.

Sample. A part of a population.

Standardized Surveys. These are surveys or questionnaires that have been tested for reliability and validity. Standardized surveys can be used to compare data that is collected across other programs in either the same or other regions.

Surveys or Questionnaires. Tools or instruments that are used to collect data or information to describe, compare, and assess knowledge, skills, attitudes, and/or behaviour.

Stakeholder. A person or group of individuals who have a direct or indirect interest or investment in a project or program.

Target Population. The persons or groups of people on whom a program is intended to have an effect. Objectives are usually written in terms of a target population.

Validity. A measure of the extent to which an instrument actually measures the trait or characteristic that it is supposed to measure.

Injury Program Example

Worksheet 1: Who will be involved and who is interested in your evaluation?

Who will you involve in planning your evaluation?

Consultant from BC Injury Research & Prevention Unit (BCI RPU), Public Health Nurse, community member representative, Kiwanis representative, program staff

Who will be interested in the results?

Community Partners: Health Units, residents

Community Sponsors: Kiwanis

Injury Stakeholders: Public Health Nurses, Medical Health Officers, Non-Government Organizations (e.g. care centres, medical suppliers)

Research Community

How will they use the results?

Expansion of the current program

Adopt current program to other settings

Plan new prevention programs in the community

Assess the impact on medical health services

Sales and promotion of safety products

What will they want to know?

Did the program achieve its objectives?

If not, why not?

Details of the program: target audience
goals /objectives
process
outcomes
future recommendations

Worksheet 2: Writing Program Goals and Objectives

Use the following template to write your objective.

<p>Goal: To improve the health of retired seniors living in a gated community by reducing the number of falls inside the home.</p>		
	Question	Answer
Specific	Who is expected to change?	members of a gated retirement community in Richmond, BC n=150 homes
	What do you want to change? (e.g., knowledge, skills, attitudes, and/or behaviours)	- knowledge of falls risk factors - awareness of injury prevention - removal of hazzards - installation of safety devices
	Where do you expect the change to occur? (e.g., in the schools, community, city, etc.)	in the homes within the gated community
Measurable	How would you <i>measure</i> the objective?	pre-test questionnaire at information session, post-test questionnaire at 1 month home visits of a sample of the population (n=50) - observational
Action	How many or how much change is expected?	50% of participants with increased knowledge 25-40% of homes with 1 or more of the suggested changes from the information session
Realistic	What makes you think the goal is <i>doable</i> ?	easy changes, no skills needed, low cost-affordable by "home owners", already safety conscious because they chose to live in a gated community
Time Limited	When do you expect the change to occur? (e.g., end of program, in the next 6 months, etc.)	after information sessions 1 month follow-up 6 month follow-up 12 month follow-up
<p>Objective: One month following the information sessions, 25% of homes within a gated retirement community will have implemented one or more suggested changes in their home to reduce the risk of falls.</p>		

Worksheet 3: List of Goals and Objectives*

List the objectives for each goal.

To improve the health of retired seniors living in a gated community by reducing the number of falls inside the home.

1, 6, & 12 months following 4 information sessions, 50% of participants will increase their knowledge about falls risk factors, and awareness about injury prevention.

One month following 4 information sessions, 25% of homes within a gated community will implement one or more suggested changes in their home to reduce the risk of falls.

One year following 4 information sessions, 40% of homes within a gated community will implement one or more suggested changes in their home to reduce the risk of falls.

One year following 4 information sessions, the number of falls that occur with the home will be reduced by 50% (compared to the previous year).

*The number of goals will vary depending on your progress.
The number of objectives for each goal will also vary.

Worksheet 4: Who is your target population and how will you access them?**1. Who is your target population?**

Retired seniors living in a gated community in Richmond, BC (150 homes).

2. How will you access them? (Where, when, etc.)**a) Where? (at the program, by mail, at school, etc.)**

Information sessions held in a common meeting room within the gated community, hosted by a resident of the community (i.e., Kiwanis member/funding organization). The information sessions will be advertized by posted flyers, flyers put in individual mailboxes, and announcements in the community bulletin.

b) When? (during the program, before and after the intervention, in the evenings by phone, etc.)

1. At the evening information sessions (1 hour each).

2. Home visits to a subset of the sample population (n=50) at 1, 6 and 12 months post-information session (home visit by public health nurse).

3. How will you make sure that you have access to this group in the short and long-term?

Stable community of retired home-owners.

4. How will you keep track of the participants during your program?

Kiwanis member (who is also a committee member for the project) will keep track of members in the community if they move (i.e., telephone contact).

Worksheet 5: What activities will you need to meet your objectives?

Use the following table to link your program activities to your objectives for each goal.

see worksheet #2

One month post-information session: increase knowledge and awareness among 50% of sample	Evening sessions: (with self-reported questionnaire) <ul style="list-style-type: none">- identify risk factors and prevention- plan action to reduce risks (suggested change)- take action to reduce risks (booklet of suggested changes to take home) 1 month home visit: questionnaire administered by public health nurse
One month post-information session: 25% of the homes will implement changes	Information sessions will include concrete examples of how to make homes safer. Examples of products and how to install them. Tour of a home with changes made. 1 month home visit: observational data collected by public health nurse.
One year post-information session: 40% of the homes will implement changes	Same as for objective #2 6 month home visit by public health nurse: observational data collected 12 month home visit by public health nurse: observational data collected
One year post-information session: 50% reduction in the number of falls (1 year pre-intervention vs. 1 year post-intervention).	Number of falls as reported by interview at 6 and 12 months (falls within the past 6 months) compared to baseline data (number of falls in past year self-reported at information session).

Worksheet 6: What is the timeline for your evaluation?

List the tasks that need to be done, who is responsible for completing them, what resources are needed and when you expect to complete the task. You can be as general or specific as you like.

Task	Person Responsible	Resources	Completion Date
Plan program: information session, 1, 6 & 12 month visits	project coordinator, program staff	staff time, overhead	October 2001
Design evaluation	project coordinator, program staff, BCI RPU consultant	staff time, overhead	October 2001
Implement: preparation for information session	project coordinator, public health nurse, Kiwanis member	staff time, materials, supplies	October - December 2001
Information sessions	public health nurse, Kiwanis member	staff time, refreshments, travel	Jan 15 - Feb 15, 2002 Mar 15 - Apr 15
1-month home visit 6-month home visit 12-month home visit	public health nurse, Kiwanis member	staff time, travel, supplies	Aug 15 - Sept 15 Jan 15 - Feb 15 2003
Analyze data	project coordinator, program staff, BCI RPU consultant	staff time, overhead	After each data collection
Write report	project coordinator, program staff, BCI RPU consultant	staff time, overhead, materials	Interim Reports: May, 2002 Oct, 2002
Disseminate	program coordinator, program staff, BCI RPU consultant	staff time, overhead, materials	Final Report: May, 2003 May-June, 2003

Worksheet 7: What resources do you have available to conduct the evaluation?

Resources include staff, time, money, office supplies and equipment, office space, etc.

- Staff** Project Coordinator - 1/2 time
Project Staff - research assistant - 1/2 time , secretary - 2 hours/week
Public Health Nurse, Kiwanis member
- Time** Public Health Nurse: (25 hours for 50 home visits) x 3, plus training and information session, travel = 85 hours
Kiwanis Member: training, information session, committee meetings, tracking & scheduling, travel = 50 hours
- Money** Sponsored by Kiwanis Club and "in-kind" support by BCI RPU
- Office supplies and equipment** Overhead: telephone, computer, printer, software, etc.
Materials: paper, photocopy
Printing: booklets
- Consultants** BCI RPU - co-investigator - 4 hours/week
- Other** travel, refreshments

Worksheet 8: How will you collect your data?

Objective #1:

1, 6, and 12 months following 4 information sessions 50% of participants will increase their knowledge about falls risk factors, and awareness about injury prevention.

What specific knowledge, skill, attitude, environment or behaviour are you measuring? What specific questions are you trying to answer?

Increase knowledge of risk factors and fall prevention.

How will you collect the data/info?*(Specific data collection instruments)	Who will collect the data/info?	When will you collect the data/info?	Where will you collect the data/info?
questionnaire	self-reported questionnaire, public health nurse	information sessions, 1 month home visit	information sessions, home of sample population
counting system	program coordinator, project staff, public health nurse	# of information session # questionnaires # refusals for visit (and why)	information sessions, home of sample population

* Will you use a survey/questionnaire, counting system, focus group, personal interview, document review, and/or other method to collect your data?

Worksheet 8: How will you collect your data?

Objective #2:

One month following 4 information sessions, 25% of homes in a gated community will implement one or more suggested changes in their home to reduce the risk of falls.

What specific knowledge, skill, attitude, environment or behaviour are you measuring? What specific questions are you trying to answer?

- removal of home hazards
- installation of safety devices

How will you collect the data/info?*(Specific data collection instruments)	Who will collect the data/info?	When will you collect the data/info?	Where will you collect the data/info?
home visit: observational and directed interview	public health nurse observation	1, 6, & 12 month post-information	homes of sample population

* Will you use a survey/questionnaire, counting system, focus group, personal interview, document review, and/or other method to collect your data?

Worksheet 8: How will you collect your data?

Objective #3:

One year following information sessions, 40% of homes within a gated community will implement one or more suggested changes in their home to reduce the risk of falls.

What specific knowledge, skill, attitude, environment or behaviour are you measuring? What specific questions are you trying to answer?

- removal of home hazards
- installation of safety devices

How will you collect the data/info?*(Specific data collection instruments)	Who will collect the data/info?	When will you collect the data/info?	Where will you collect the data/info?
home visit: observational and directed interview	public health nurse observation, self-reported	12 month post-information	homes of sample population

* Will you use a survey/questionnaire, counting system, focus group, personal interview, document review, and/or other method to collect your data?

Worksheet 8: How will you collect your data?

Objective #4:

One year following 4 information sessions, the number of falls within the home will decrease by 50% (compared to the previous year).

What specific knowledge, skill, attitude, environment or behaviour are you measuring? What specific questions are you trying to answer?

- reduction of falls within the home.

How will you collect the data/info?*(Specific data collection instruments)	Who will collect the data/info?	When will you collect the data/info?	Where will you collect the data/info?
home visit: observational and directed interview	public health nurse, self-reported	12 month post-information	homes of sample population

* Will you use a survey/questionnaire, counting system, focus group, personal interview, document review, and/or other method to collect your data?

Worksheet 9: Who is the audience for your evaluation report?

Who is your audience?	What information would they like to receive?	What is the best way of presenting the evaluation results?
Audience #1 – Target audience Community partner: Health Unit	did we achieve objectives? promote knowledge & educate community	executive summary
Audience #2 Funders: Kiwanis	did we achieve our objective? accountability for resources	executive summary presentation
Audience #3 Government: Public Health Nurses, Medical Health Officers, Ministry of Health	details of program degree of success process evaluation outcome evaluation	executive summary report
Audience #4 NGO's, Medical Suppliers	details of program degree of success products used	executive summary
Audience #5 Research Community	evaluation education dissemination	scientific publication

Worksheet 10: What are your next steps?

- disseminate
- consultant with BCI RPU: determine what changes are needed and how to make them
- conduct focus groups with participants

- refine budget, funding sources
- identify education & orientation of new project staff
- expand to new target audience
- redefine program goals & objectives

- project staff, program coordinator, BCI RPU, community partners

- additional funding from community partners
- "in-kind" resources from BCI RPU

Hiring an Outside Evaluator

Depending on the scope of a program or the evaluation, agencies may choose to bring in an outside evaluator to assist in designing, implementing, analyzing data, and/or interpreting results.

It is important to clarify the roles and responsibilities of the consultant and of yourself before beginning. Consider the following when contracting with an evaluator:

- Define the relationship between the project sponsor and the evaluator.
- Identify the work for which the evaluator will be responsible and agree on a detailed work plan.
- Identify the credentials and experience that the evaluator will require.
- Agree on a timeline and deliverables.
- Identify how the evaluator will be held accountable for implementing an evaluation framework and its principles.
- Identify how any disputes between the project sponsor and evaluator will be resolved.

An outside evaluation consultant should¹⁸:

- Be uninvolved in developing or running the program;
- Educate staff in the evaluation process and materials used as well as explain the benefits and risks of an evaluation;
- Remain neutral, avoid being influenced by particular findings, and remain impartial about the evaluation results;
- Have the appropriate experience both in terms of the type of program being evaluated and conducting the evaluation;

¹⁸Adapted from Thompson & McClintock (1998). *Demonstrating Your Program's Worth*.

-
- Communicate with key personnel, provide the full results of the findings to staff and respect all levels of personnel; and
 - Deliver the report and deliverables on time and within established constraints (for example, budget).

Even though these characteristics are directed at an outside consultant, they also are applicable to individuals within the organization or agency who are charged with carrying out an evaluation process. It is important that those conducting the evaluation involve and educate staff and stakeholders in the process, communicate the process and results to all those involved, conduct the evaluation within the agreed to framework, time and budget, and exercise impartiality in reporting the results, drawing conclusions, and making recommendations.

Guidelines for Designing a Survey Instrument

1. Clearly define the population you want to survey.
2. Choose the method you will use to administer the survey.
3. Develop the survey questions carefully. Close-ended questions are easiest for respondents to complete and least subject to error. These are multiple-choice, scaled, and questions answerable by *Yes* or *No*, or *True* or *False*. Questions should contain only one theme and be clear. Only ask questions that are important to your evaluation. The survey should take the respondent no more than 10 minutes to fill out.
4. Put items in correct order. Begin with the least sensitive questions and build to the most sensitive. Respondents are more likely to answer sensitive questions after they feel they know the purpose of the survey or if they have a rapport with the person who developed the survey. It is recommended that demographic questions (e.g., age, education, gender, ethnicity, income, etc.) be put at the end of the survey because they can be viewed as sensitive.
5. Give the survey an appropriate title. This is the first thing the respondent will see. It can influence their decision to answer your survey. Examples of good titles are: “Survey of Preventing Falls in the Seniors in Your Community” and “Survey of the Level of Satisfaction with Our Program”.
6. Pilot test the instrument. It is important to pilot test the survey. This means administering it to a small group of participants that are either similar to your target population, or from your target population. The purpose is to find out whether the survey instrument is useful for obtaining the information you need from your target audience. Are the questions confusing, ambiguous or poorly phrased? Is it culturally sensitive? Can you use the data you are getting?
7. Modify. You can modify the questionnaire if the questions are not getting the information you need.

Note: You may want to test the survey for reliability and validity. This discussion is beyond the scope of this manual.

Answers to Exercise

1. What percent of the respondents are female? Male?

Female = $14/24 \times 100 = 58\%$

Male = $10/24 \times 100 = 42\%$

2. What is the average age of the survey respondents?

$(55+63+72+81+89+75+76+64+68+71+75+84+68+65+59+71+72+78+63+66+70+74+73+69) / 24 = 71$ years

3. What were the most common changes participants made to behaviour and environment?

Rugs (33%) and being more careful (29%).

4. What were the differences between the males and females in how important they thought the program was in making them more aware of the reasons why they fall?

Almost the same percentage of males and females reported that the program was very important in making them more aware of the reasons why they fall. However, almost twice as many males (40%) than females (21%) thought it was important. Overall, 70% of males thought the program was very important or important compared to 57% of females. While 30% of males thought it was somewhat or not at all important compared to 43% of females.

5. What percentage of the females thought the program was very important and important in reducing their number of trips, near falls and falls?

28% (7%+21%) of the females thought the program was very important and important in reducing their number of trips, near falls and falls.

continued...

6. Were there any differences between the males and females about how important they thought the program was in reducing their number of trips, near falls and falls?

No, there does not appear to be any difference between the males and females about how important they thought the program was in reducing their number of trips, near falls and falls.

7. Do you think the program was effective? Why or why not?

It is difficult to conclude from the data shown whether or not the program was effective. Almost two-thirds (62%) of the seniors felt the program made them more aware of the reasons for falling. And it appears that they all made at least one change in their behaviour or environment (although it is not clear from the data whether or not everyone made one change or if certain seniors made more than one change). However, there is no data shown that measures if the number of falls was reduced over time. Follow-up data would need to be collected.

8. Write a few sentences to interpret the above data.

As mentioned above, it is difficult to tell from the data provided whether or not the program was effective in reducing falls in seniors. However, it does appear to have increased the participants' awareness of the reasons for falls, resulted in changes being made to their behaviors and environment and reduced the number of trips, near falls and falls. It is recommended that 6-month and 1 year follow-up data be collected on the number of falls experienced, and the number of changes made since the program.

Many different interpretations can be made of the data presented.

Bibliography

Atkinson, A., Deaton, M., Travis, R. & Wessel, T. (December 1999), *Program planning and evaluation handbook. A guide for safe and drug-free schools and communities act programs, 2nd Edition*. Harrisonburg, VA: Office of Substance Abuse Research, James Madison University. <http://www.jmu.edu/cisat/vepp>

Centre for Health Promotion (1999), *Conducting focus groups*. Toronto, ON: University of Toronto, The Health Communication Unit. <http://www.utoronto.ca/chp/hcu/>

Centre for Health Promotion (1997), *Conducting survey research*. Toronto, ON: University of Toronto, The Health Communication Unit. <http://www.utoronto.ca/chp/hcu/>

Centre for Health Promotion (1998), *Evaluating health promotion programs*. Toronto, ON: University of Toronto, The Health Communication Unit. <http://www.utoronto.ca/chp/hcu/>

Ellis, D., Reid, G., & Barnsely, J. (1990), *Keeping on track: An evaluation guide for community groups*. Vancouver, BC: Women's Research Centre.

Freddolino, P.F. & Michigan Public Health Institute (1997), *Safe and drug-free schools and communities: The evaluation training workbook*, Volume 2, Okemos, MI.

Habermas, J. (1984), *The theory of communicative action*. Volume 1. Boston: Beacon Press.

Health Canada (1996), *Guide to project evaluation: A participatory approach*. <http://www.hc-sc.ca/hppb/phdd/guide>.

McNamara, C. (Unknown), *Basic guide to program evaluation*. Information assembled by Carter McNamara. <http://www.mapnp.org/library/evaluatn/fnl.eval.htm>

McNamara, C. (Unknown), *Basic research methods*. Information assembled by Carter McNamara. <http://www.mapnp.org/library/research/research.htm>

Michigan Public Health Institute (1999), *Evaluation resource guide. Michigan Abstinence Partnership*, Okemos, MI.

Michigan Public Health Institute (1999), *Governor's Discretionary Grant evaluation training series*, Okemos, MI.

National Science Foundation (1997), *User-friendly handbook for mixed methods evaluations*. <http://www.her.nsf.gov/EHR/REC/pubs/NSF97-153/start.htm>

Patton, M.Q. (1990), *Qualitative evaluation and research methods*, 2nd Edition. Newbury Park, CA: Sage Publications.

Statistics Canada (April 2000), *Canadian community health survey – draft*. www.statcan.ca/english/concepts/health/content.htm

Storoschuk, S., Pipke, I., Baillie, L. & Lovato, C. (2001), *Evaluation Handbook for Communities*. Cancer Centre for the Southern Interior, Kelowna, BC.

Taylor-Powell, E., Steele, S. & Douglass, M. (1996), *Planning a program evaluation*. <http://www.uwex.edu/ces/pubs>

Thompson, N.J. & McClintock, H.O. (1998), *Demonstrating your program's worth: A primer on evaluation of programs to prevent unintentional injuries*. National Center for Injury Prevention and Control, Atlanta, Georgia.

Whitman, A. (1998), *Community Tool Box*, <http://ctb.lsi.ukans.edu/>

Blank Worksheets

Worksheet 1: Who will be involved and who is interested in your evaluation?

Worksheet 2: Writing goals and objectives.

Worksheet 3: List of program goals and objectives.

Worksheet 4: Who is your target population?

Worksheet 5: What activities will you do to meet your objectives?

Worksheet 6: What is the timeline for your evaluation?

Worksheet 7: What resources do you have available?

Worksheet 8: How will you collect your data?

Worksheet 9: Who is the audience for your evaluation report?

Worksheet 10: What are your next steps?

Worksheet 1: Who will be involved and who is interested in your evaluation?

Who will you involve in planning your evaluation?

Who will be interested in the results?

How will they use the results?

What will they want to know?

Worksheet #2: Writing Program Goals and Objectives

Use the following template to write your objective.

Goal:		
	Question	Answer
Specific	Who is expected to change?	
	What do you want to change? (e.g., knowledge, skills, attitudes, and/or behaviours)	
	Where do you expect the change to occur? (e.g., in the schools, community, city, etc.)	
Measurable	How would you <i>measure</i> the objective?	
Action	How many or how much change is expected?	
Realistic	What makes you think the goal is <i>doable</i> ?	
Time Limited	When do you expect the change to occur? (e.g., end of program, in the next 6 months, etc.)	
Objective:		

Worksheet #3: List of Goals and Objectives*

List the objectives for each goal.

Goal:	
Objective 1:	
Objective 2:	
Objective 3:	
Objective 4:	

*The number of goals will vary depending on your progress.
The number of objectives for each goal will also vary.

Worksheet 4: Who is your target population and how will you access them?

1. Who is your target population?

2. How will you access them? (Where, when, etc.)

a) Where? (at the program, by mail, at school, etc.)

b) When? (during the program, before and after the intervention, in the evenings by phone, etc.)

3. How will you make sure that you have access to this group in the short and long-term?

4. How will you keep track of the participants during your program?

Worksheet 5: What activities will you need to meet your objectives?

Use the following table to link your program activities to your objectives for each goal.

Goal: _____

Objective	Activities
1.	
2.	
3.	
4.	

Worksheet 7: What resources do you have available to conduct the evaluation?

Resources include staff, time, money, office supplies and equipment, office space, etc.

Staff _____

Time _____

Money _____

Office supplies and equipment _____

Consultants _____

Other _____

Worksheet 8: How will you collect your data?

Objective:

What specific knowledge, skill, attitude, environment or behaviour are you measuring? What specific questions are you trying to answer?

How will you collect the data/info?*(Specific data collection instruments)	Who will collect the data/info?	When will you collect the data/info?	Where will you collect the data/info?

** Will you use a survey/questionnaire, counting system, focus group, personal interview, document review, and/or other method to collect your data?*

Worksheet 9: Who is the audience for your evaluation report?

Who is your audience?	What information would they like to receive?	What is the best way of presenting the evaluation results?
Audience #1 – Target audience		
Audience #2		
Audience #3		
Audience #4		
Audience #5		

Worksheet 10: What are your next steps?

When you have finished your evaluation, what will be your next steps?

What changes do you anticipate that you will make to your program?

Who will you involve in making these changes?

What kinds of resources will you need?