“This is a story of four people named Everybody, Somebody, Anybody and Nobody. There was an important job to be done and Everybody was sure that Somebody would do it. Anybody could have done it, but Nobody did it. Somebody got angry about that because it was Everybody’s job. Everybody thought Anybody could do it, but Nobody realized that Everybody wouldn’t do it. It ended up that Everybody blamed Somebody when actually Nobody accused Anybody”.

(Author unknown)
Learning objectives

- After completion of this chapter, the student will be able to:
  - Explain the importance of evidence-informed health related information for program planning and evaluation;
  - Discuss the growing importance and use of web-based technologies and platforms to plan for, develop, implement and disseminate information related to a variety of primary health care programs in Canada and globally;
  - Define and differentiate between the terms program planning, strategic (allocative) planning, operational (activity) planning, program evaluation, formative evaluation, process evaluation and summative evaluation;
Learning objectives continued…

- Recognize and describe the importance of including key stakeholders in program planning and evaluation processes;
- Describe the significance of program planning and evaluation by health care professionals, workers and policy makers in Canada and internationally;
- Describe how program logic models may be utilized by health care professionals and workers to assess the impact of public health programs in Canada and abroad;
Learning objectives continued…

- Describe and differentiate between the 8 critical steps of the program planning and evaluation process;
- List and describe how health services research (HSR) and outcomes research can be utilized by public health care professionals, workers and policy makers to monitor, evaluate and/or improve primary health care services and initiatives in diverse populations across the lifespan, and
- List and discuss ethical considerations and principles related to program planning and evaluation for public health professionals and workers.
What is “Planning” and why is it important to Public Health?

- **Planning** is a critical component of public health which seeks to make informed decisions today based on the best-available evidence to influence future health outcomes and directives based on competing resources and/or priorities.
What is “Programme Planning”?

- Programme planning is defined as an organized and structured systemic decision-making process which attempts to meet specific primary health care aims or objectives through the application of currently available, and competing or needed resources in the future based on identified priorities or projected needs.
Establishment of health care needs or priorities

- The establishment of health care needs or priorities may be situational (e.g., aging population)
- or reactive in nature (e.g., SARS, Zika & A/H1N1 pandemics).

Caption: During the 2009 A/H1N1 pandemic, there were 428 deaths and 8,678 hospitalizations in Canada (PHAC, 2010). Source: Photo by Wally J. Bartfay, 2014.
Strategic planning example

- The overall goals of the *Canadian Pandemic Influenza Plan* is to minimize serious illness, overall deaths and social disruption.

- During the 2009 pandemic, there were 428 deaths and 8,678 hospitalizations in Canada due to influenza A/H1N1 (Public Health Agency of Canada, 2010).

What is “Operational” of “Activity Planning”?

- **Operational or activity planning** is defined as a formalized decision-making process which focuses on the implementation of plans based on detailed time frames.

- For many planning systems, both short- and long-term planning outcomes may be identified.
What is Short-term Planning”?

Short-term planning outcomes are the immediately apparent results of the program, such as a community-based immunization campaign to prevent the spread of a potentially life-threatening virus.
What is Long-term Planning”?

- Reducing the incidence of attempted and successful suicides in a defined target population (e.g., Aboriginal youth) over a five year period would be an example of a long-term planning outcome.
What is “Evaluation”?

Evaluation is best understood as a process ultimately intended to determine the worth of something new, presumably in comparison with some current norm or standard of “goodness”. (i.e., what is the current “gold standard”)

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Types of Program Evaluations

- There are a variety of program evaluation types that can be broadly classified into the following three main categories, which are typically based on when the evaluations are being conducted and the type of information being collected:
  
  (i) Formative;
  
  (ii) process, and

  (iii) summative.
(i) Formative Evaluations

- Focus on public health programmes that are being planned and developed to help ensure that the stakeholders’ needs are being addressed and that the programme uses effective and appropriate structures, resources, facilities, procedures, and/or materials.
Formative Evaluations continued…

- Include such things as needs assessments, programme logic models, pretesting or piloting of programme materials or educational resources.
- Also includes a preliminary analysis to determine if your programme’s intended aims, goals, or outcomes can be achieved, measured and evaluated.
Structural Evaluation

- Is a common component of formative evaluations and involves the assessment of resources used in the programme.
(ii) Process Evaluations

- Focus on programmes that have gone through the formal planning stages and have been implemented or are already underway.
- Seek to answer the question: “What health services are actually being delivered and to whom?”
(iii) Summative Evaluations

- Are carried out for health programmes that are well underway or have been completed and can be used to assess short-, medium-, or long-term aims, goals, or desired outcomes of the programme, both intended and unintended.
What are outcome measures?

- An outcome measure evaluates what specifically occurred as the result of the health programme being implemented in reference to its noted aims or goals.

- For example, anti-smoking health campaigns and prevalence rates of smokers over time.

Caption: A sign prohibiting smoking near entrances and exits on a university campus. Signs such as this one and legislation banning smoking in workplaces, theaters, shopping centres, bars and restaurants in Canada is an example of a positive outcome measure which helps to protect non-smokers from the harmful effects associated with exposure to second-hand smoke in their environment. Source: Photo by Wally J. Bartfay, Oshawa, Ontario, 2016.
What are impact measures?

- Are used to evaluate the effect of the implemented health programme on the users, stakeholders, and implementers and specifically measures what changes (+, - or neutral) occurred as a result of the programme.
- For example, effectiveness of various smoking cessation programs
The importance of consulting and involving community stakeholders example

- Community stakeholders were consulted in Copenhagen, Denmark to deal with health related concerns associated with intravenous (I.V.) drug use (e.g., STI’s, hepatitis B).
- This converted ambulance is known as the “Fixulance” and is the first safe drug consumption room (DCR) in Denmark where health care professionals can supervise I.V. drug users and also provide them with health information and referrals.
- The first DCR opened in Copenhagen in September, 2011 and currently there are 4 DCRs total due to the success of the pilot program.
Stakeholders satisfaction example

- Satisfaction of stakeholders may or may not also be a good indicator of program success per se.
- For example, parents of teens may not be “satisfied” about the availability of condom machines in school washrooms or their open display and availability in community pharmacies, although they have been shown to help to prevent the contraction and spread of STI’s and unwanted pregnancies.
Steps Involved in the Programme Planning and Evaluation Process

- There are a variety of models that have been described in the literature.
- Process is similar to the research process (see Ch. 5).

1. **Step I**
   - Conduct needs assessment and engage stakeholders & implementers

2. **Step II**
   - Describe/detail the program’s aims or goals

3. **Step III**
   - Develop drafts of the proposed action plan, design or approach and evaluation model based on the best available evidence

4. **Step IV**
   - Seek feedback from stakeholders & implementers

5. **Step V**
   - Refine action plan, model or design based on feedback

6. **Step VI**
   - Implement the action plan, model or design

7. **Step VII**
   - Evaluate the successes and short-comings of the program by documenting evidence and outcomes achieved to justify conclusions reached

8. **Step VIII**
   - Dissemination of program findings and outcomes achieved with stakeholders & implementers

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Step I: Needs Assessment

- The first step consists of a needs assessment which helps to formulate a clear understanding by all stakeholder’s and implementer’s as to what the actual or potential needs, problems or health related issues are that need to be addressed to positively influence health and well-being in a defined community or region.
What are actual problems?

- **Actual problems** are those that currently exist in a defined group or community.
- E.g., high incidence of STI’s in teens in a community.
What are potential problems?

- **Potential problems** are those that may occur at some later time or date.
- E.g., development of heart disease or diabetes in adults who were obese as children.
Who are “Stakeholders”? 

- **Stakeholders** are defined as all individuals or groups (both internal and external) who have an interest in the program or those who may be affected by the program either directly or indirectly; including community volunteers, potential program participants, policy makers, governmental agencies, non-governmental agencies, or industry.
Step II: Articulate program aims and goals

- The proposed program should have **measurable indicators** that can be short-term, middle-term, and/or long-term in nature.
Step III: Develop a draft program plan

- The third step of the program planning and evaluation process is to develop a draft program plan based on a critical review of the best-available evidence and the current state of knowledge related to the actual or potential problem(s) or issue(s) identified.
Task development time lines

- Specify tasks or activities that need to be completed and the time frame in which the task are estimated to be completed by.
- Making an optimistic and alternative time line may be wise.
- Flexibility is needed in combination with goal directedness.
What are Gantt Charts?

- **Gantt charts** are typically depicted in a tabular format and are a commonly employed visual tool to present the **sequence and timing** of tasks or activities that must take place in order to accomplish the specific objectives of the program or project.

- Hence, a Gantt chart provides stakeholders and planners with a visual aid to monitor tasks completed and progress made on a regular basis.
**Figure 10.3: Sample Gantt Chart of a Pilot Community-based Health Promotion Program**

<table>
<thead>
<tr>
<th>Major Tasks</th>
<th>JAN</th>
<th>FEB</th>
<th>MARCH</th>
<th>APRIL</th>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUG</th>
<th>SEPT</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop pilot program rationale</td>
<td>XO</td>
<td>XO</td>
<td>XO</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Conduct needs assessment for all stakeholders concerned</td>
<td>XO</td>
<td>XO</td>
<td>XO</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. Develop program goals and objectives</td>
<td>XO</td>
<td>XO</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4. Detail health promotion interventions</td>
<td>XO</td>
<td>XO</td>
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</tr>
<tr>
<td>5. Assembly necessary resources and train program facilitators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X O</td>
<td>X X</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6. Promote and pilot test program</td>
<td></td>
<td></td>
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<td></td>
<td>X X</td>
<td>X X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Collect and analyze data and evaluate program outcomes</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>X X</td>
<td>X X</td>
<td>X X</td>
</tr>
<tr>
<td>8. Write report</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>9. Present findings to key stakeholders</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X X</td>
<td>X X</td>
</tr>
</tbody>
</table>

Caption: X = planned time frame; XO = completed and * = marker for current date or time frame.
Step IV: Seek feedback and suggestions

- The fourth step of this process is seeking feedback and suggestions from all stakeholder’s and implementer’s.
- It is critical to determine that you have identified all the program aims or goals, how the program will be implemented and by whom, the target dates for completion and so on.
Step V: Refine action plan, model or design based on feedback

- Feedback may occur in a variety of formats (e.g., town hall meetings, focus group sessions, e-mails, etc.).
- For example, programs involving the use of community volunteers as resources are becoming increasingly popular as a way to help contain costs and, hopefully, encourage community partnerships and empowerment in term.
Step VI: Implementation

Once the program is implemented, it is critical to carefully monitor and assess the program on an ongoing basis for unforeseen events or circumstances that may negatively impact on the overall success of the program.
Step VII: Evaluation

- This step involves the formal evaluation of the program aims or goals.
- The evaluation is based on the documented outcomes achieved and an analysis of the qualitative and/or quantitative data collected (i.e., evidence collected).
Step VIII: Dissemination and communication of findings

- This step serves as a vehicle for providing feedback related to the program findings and outcomes achieved to all stakeholders and implementers in reference to the program aims or goals.

- Although formal documentation of the evaluation is often a requirement for various health programs, informal mechanisms may also be employed.
Users of the S.W.O.T. method need to ask and answer questions that generate meaningful information for each of the categories (strengths, weaknesses, opportunities, and threats) in order to generate meaningful analysis.
Program Logic Models

- Program logic models are often employed by public health agencies and institutions in Canada because of their simplicity for use and ability to clearly reveal program interrelationships and linkages.
- The logic model provides a diagram of *what the program is supposed to do, with whom, and why.*
Development of a Program Logic Model

- Consists of two main planning stages:
  (i) Components, Activities and Target groups (CAT), and
  (ii) the Short-term Outcomes and Long-term Outcomes (SOLO).
The CAT Stage

- During the CAT stage, activities are typically clustered thematically into components for the public health program under consideration or review.
- E.g., recruitment of new public health nurses in a community
The Solo Stage

- During the SOLO stage, short- and long-term health related outcomes of the public health program is identified.

- **Short-term outcomes** are immediate effects of the programme (e.g., increase knowledge r/t STI in Aboriginal teens)

- **Long-term outcomes** may involve the achievement of goals (e.g., decrease incidence rates of STI’s over 5 year)
What is a “Health Service”? 

- A health service is simply any primary health care service provided by a public health care professional or worker for the purpose of maintaining, promoting, and protecting, and/or restoring the health of diverse populations across the lifespan.
What is “Health Services Research”? 

- Health services research (HSR) is defined as an integrative and multidisciplinary scientific field that involves the integration of knowledge, and the study and evaluation of the organization, functioning and performance of health services.
What are “Outcomes”?

- An outcome for a public health service provided includes all possible results (negative, positive or neutral) that may stem from exposure to a known causal factor (e.g., H1N1), determinant of health and/or from a primary health care intervention.
- End results may include such things as mortality, survival, disability, individual’s experience with the public health services provided, and morbidity measures such as their overall health related quality of life.
What is “Outcomes Research”? 

- **Outcomes research** is designed to critically and objectively examine and document the effectiveness of health care policies and services and the end results of care provided to clients.
- Outcomes research examines the specific outcomes of primary health care interventions and seeks to understand why these end results were obtained or not.
What is Ethics?

**Ethics** is defined as a branch of philosophy which deals with the study of nature and justification of principles that guide human behaviours and decisions and are applied when moral issues or dilemma’s arise.

Caption: Youth engaged in “tagging their territory” via graffiti. Ethics deals with the study of human nature, behaviours and decisions surrounding ethical or moral issues in society. Source: Photo by Wally J. Bartfay, Sweden, 2014.
What is Public Health Ethics?

- Public health ethics is defined as a practical means of collaboratively determining a moral course of action with all stakeholders concerned and their impacts and consequences.
<table>
<thead>
<tr>
<th>Ethical Principle</th>
<th>What the Principle Entails</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>Deals with respect for persons and the right to self-determination and destiny. (Note: Informed consent, confidentiality, fidelity and veracity all rely on the acceptance and exercise of this principle)</td>
<td>Allowing a client in their home the right to refuse a treatment or intervention (e.g., IV medication, dressing change, insertion of a Foley catheter).</td>
</tr>
<tr>
<td>Active collaboration</td>
<td>Requires formalized input from public health professionals and workers and all stakeholders considered in order to ensure active discussions, decision-making, prioritization of needs, education and communication.</td>
<td>Holding a community-based meeting to discuss a proposal related to fluoridation of drinking water supplies on a First Nations reserve with several boil-water advisories.</td>
</tr>
<tr>
<td>Beneficence</td>
<td>Deals with doing or promoting good that requires abstention from injuring others, and the promotion of the opinions or interests of others primarily by decreasing, preventing or limiting possible harms.</td>
<td>Installing hand-rails and other safety equipment in an elderly client's bathroom to prevent falls.</td>
</tr>
</tbody>
</table>
Table 10.4: Basic Ethical Principles continued…

<table>
<thead>
<tr>
<th>Ethical Principle</th>
<th>What the Principle Entails</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairness</td>
<td>Requires that decisions and public health interventions be based on the best available evidence and be responsive to the needs of those affected, acceptable to all, while respecting professional obligations and duties related to care, compassion, resource stewardship and maintenance of public trust.</td>
<td>Setting up a mandatory screening station outside all public health facilities to screen all health professionals and workers and the general public prior to entrance (e.g., temperature check, screening survey related to travel abroad, fever, coughing, etc) during a global pandemic (e.g., SARS).</td>
</tr>
<tr>
<td>Fidelity</td>
<td>Deals with keeping/honouring one’s promise made to others.</td>
<td>A public health nurse makes a follow-up home visit to a client in the community at the agreed-upon date and time.</td>
</tr>
<tr>
<td>Following the Rule of Law</td>
<td>Requires that appropriate public health legislations, actions, standards and/or incentives are only made by the proper designated public authorities (e.g., Minister of Health) or agencies (e.g., Health Canada, PHAC) via appropriate processes and laws.</td>
<td>A decision by the federal government to increase taxes on tobacco products sold in Canada as a means to discourage smoking by individuals and associated negative health outcomes.</td>
</tr>
<tr>
<td>Ethical Principle</td>
<td>What the Principle Entails</td>
<td>Example</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Nonmaleficence</td>
<td>Deals with doing no harm to the client.</td>
<td>A public health nurse helps a homeless man in distress to a community clinic for follow-up diagnostic services.</td>
</tr>
<tr>
<td>Social Justice</td>
<td>Deals with the issue of fairness that an individual is entitled to, deserves or has a legitimate claim to.</td>
<td>A client is placed upon the provincial waiting list for cardiac surgery based on priority needs.</td>
</tr>
<tr>
<td>Veracity</td>
<td>Deals with telling the truth to clients.</td>
<td>A public health professional informs a teen that they have contracted a STI based on laboratory findings.</td>
</tr>
</tbody>
</table>
Ethical Decision Making

- Ethical decisions in health care are guided primarily by two classical ethical theories:
  (i) Deontology; and
  (ii) Teleology, especially the utilitarianism form.
What is Deontology?

- Deontology is defined as the classical ethical theory based on moral obligations and duties that require individuals to act in certain ways in response to moral, cultural and social norms and expectations or motivations.
What is Teleology?

- Teleology is defined as a classical theory that determines rightness or wrongness based solely on the basis of an estimate, likelihood or probably outcomes.
What is ‘Utilitarianism’?

- Utilitarianism is one form of teleology which is based on usefulness or utility of the outcomes achieved.
Primary targets of public health interventions have greatly expanded over the past few decades beyond the management and prevention of communicable disease (e.g., non-communicable chronic diseases, bioterrorism, climate change, SDH).

As public health challenges expand, so do the associated costs.
Future Directions & Challenges

- Programme planning and evaluation should not occur in isolation or within professional silos (e.g., public health nursing, epidemiology), but should include all stakeholders and involve a multidisciplinary team.
Future Directions & Challenges

- Important to note that health care challenges and priorities within in the public health context are often fluid in nature and change and evolve due to a variety of events and consequences.

- Society trends are significant to programme planning and evaluation b/c they are directly linked to the community

(e.g., 2009 Global recession on laid-off GM auto-assembly workers in Durham Region of Ontario)