FACILITATOR / MENTOR GUIDE

Using Science to Inform Policy

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# Introduction to Using Science to Inform Policy

OVERVIEW OF USING SCIENCE TO INFORM POLICY

Using science to inform decision making ensures that policies and practices used in the prevention, detection, and treatment of diseases are based on data, principles, interventions, and findings that have been proven through appropriate scientific methods and are therefore more likely to improve health outcomes.

Policy is <u>purposeful</u> action by an organization or institution to address an <u>identified</u> problem or issue through executive, legislative, or administrative means. It can be voluntary or legally binding.

Policy development is one of the core functions of public health; within those core functions are the 10 essential services of public health as shown below:[1,2]

Core Functions of Public Health[3]

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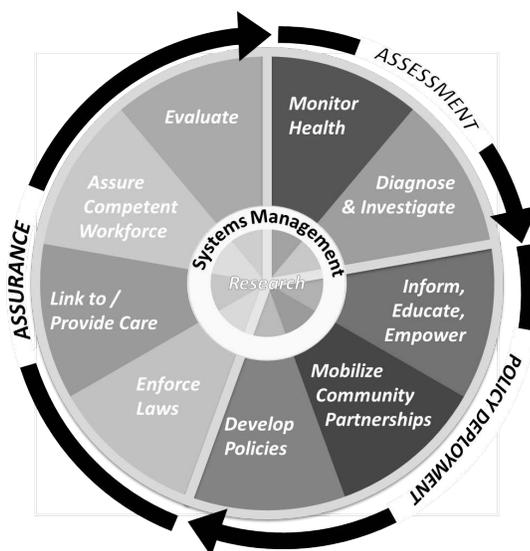
[1] Institute of Medicine, Committee for the Study of the Future of Public Health. The future of public health. Washington (DC): National Academy Press; 1988.
[2] 10 Essential Services of Public Health. Available at http://www.cdc.gov/nphpsp/essentialServices.html
[3] Fielding JE, Teutsch S, Breslow L. A framework for public health in the United States. Public Health Reviews 2010;32:174-189. Available at: http://www.publichealthreviews.eu/show/f/25

Assessment – the ability to conduct public health surveillance to measure the health of the population and determinants; investigate health problems, and identify causes.

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community

Policy development – the ability to inform leaders and the general population about health, to develop policy solutions, and mobilize support.

3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships and action to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts

Assurance – the ability to ensure the health of the population by having a competent workforce to enforce laws; to have medical care available to all; and to evaluate progress as part of a virtuous cycle of quality improvement (Plan/Do/Study/Act).

6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. Assure competent public and personal health care workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems

In this training, participants will gain introductory knowledge about public health policy. Topics will cover how and why a health issue becomes important and the steps that are taken to develop policy around a specific issue.

LEARNING OBJECTIVES

At the end of the training, you will be able to present policy recommendations to key stakeholders that include:

- Scope and impact of the health issue
- Costs (economic and morbidity/mortality) of the issue
- Recommended policy to address the issue
- Consequences of implementing the policy, including effectiveness, costs, savings
- How the policy option(s) can be implemented
- Barriers to implementing the policy and ways to overcome them

ESTIMATED COMPLETION TIME

The module should take approximately 12 hours to complete.

TARGET AUDIENCE

The module is designed for FETP residents who specialize in noncommunicable diseases (NCDs). Throughout the training the facilitator or mentor should emphasize the role that FETP residents may have in NCD policy within their country.

PRE-WORK AND PREREQUISITES

Participants should have completed training on program planning prior to completing this module.

OPTIONS FOR FACILITATING THIS TRAINING

There are two options for facilitating this training:

1. Individual mentor-directed: A mentor helps the participant complete the training. The mentor's main responsibility will be to review the participant's work and provide feedback.

   A mentor will meet with the participant a minimum of two times. At the first meeting, the mentor should orient the participant to the training, provide examples and direction indicated, answer questions, and set future modes of contact and meeting time(s). Very small groups (less than 5 individuals) may choose to work on the training together and find individual or collective mentor(s).

2. Classroom: There are two options for classroom training. For option a, participants read the training material *prior* to attending class and then review what they read in class. For option b, participants read the training material *during* class.

a. **Participants read training material *prior* to attending class**. At the start of each module section, the facilitator reviews key points. (**Note:** The facilitator may prepare PowerPoint slides for a brief presentation of key points, lead an informal discussion about the reading, or ask participants to answer questions individually or in small groups about what they read.)

b. **Participants read training material during class:** The facilitator directs students to read the training material and complete the exercises as indicated in the workbook. The facilitator leads group discussions to review what participants have read and reviews participants' answers to the exercises.

MATERIALS AND EQUIPMENT

For the Facilitator or Mentor:

- Facilitator / Mentor Guide
- Flip chart and markers
- (Optional) PowerPoint slides on cervical cancer
- Local example of policy brief

For the Participant:

- Participant Workbook
- Field Guidelines for Using Science to Inform Policy
- Second Hand Smoking Case Study
- Computer with access to the Internet
- Flipchart and markers

CONFIGURATION OF THE TRAINING ROOM

If this training will be implemented in a facilitator-led setting, please note the following recommendations:

1. Use a room large enough to host breakout groups of 5-8 participants.
2. Each breakout group should have one rectangular or round table for completing small group work.
3. An ideal training room will have enough space between tables to have flipcharts for each group, and enough space between tables so that groups will not be too distracted by each other.

ICON GLOSSARY

The following icons are used in this guide:

Image Type	Image Meaning
Reading Icon	Participants read a section in the participant workbook.
Activity Icon	An activity, exercise, assessment or case study that participants complete.
Group Icon	A group discussion that you will lead, either to review key points or answers to an activity.
Flip Chart Icon	Write responses during facilitator-led discussions or debriefs.
Prepare Icon	An activity in the module for which you need to prepare (e.g., making handouts of a report, identifying a local example).

PREPARATION

There are several facilitator/mentor-led discussions throughout this module. Be sure to review this facilitator guide and read the descriptions of how to prepare for the following discussions:

Prepare

- Introduction to the module (p. 2)
- Examples of public health policy in your country (p. 2)
- Health issue under debate (p.3)
- Policy brief or presentation example (p. 9)
- Policy implementation (p. 11)

As noted in the "Materials and Equipment" section above, you may prepare slides for these discussions/ presentation.

ACKNOWLEDGEMENTS

How to Facilitate This Module

FACILITATOR/MENTOR RESPONSIBILITIES

This training module is self-paced. Participants learn the content by reading their workbook and participating in group discussions. Participants apply what they learn by completing practice exercises and skill assessments. They will use a cervical cancer case study for the practice exercises and a secondhand smoking case study for the optional skill assessment.

As a facilitator, you will facilitate or assist in the participants' learning. Your main roles will be as follows:

- **Introduce** the module topic
- **Lead** group discussions to review or elaborate on what participants read
- **Answer** questions that participants may have during the training
- **Review** participants' work and provide feedback
- **Be a timekeeper**, ensuring participants stay within a general schedule

As a *mentor*, you will perform the same tasks and play a more active role in supporting the learner after the training with his or her field work.

CLASS INTRODUCTIONS AND SECTIONS 1 AND 2

Total Estimated Time: 1 hour, 30 minutes
Class introductions and overview: 30 minutes
Readings: up to 30 minutes
Group discussion: 30 minutes

Duration/ Session Type	What to Do/What to Say
30 minutes Group	**Class Introductions and Overview** • Welcome participants to the classroom or meeting room. • Introduce yourself and any other facilitators. • Facilitate participant introductions by asking each participant: to introduce him/herself with the following information: o His/her name o Where he/she works and for how long o Experience with NCDs o Experience making policy recommendations o Class expectations

Duration/ Session Type	What to Do/What to Say
Prepare	• Distribute the Participant Workbook, Case Study, and Field Guidelines for this module. • Explain how participants will learn the skills by reading the participant workbook and apply what they have learned by completing a case study. • Provide an overview of what participants will learn in the module and how the skills and knowledge they acquire will help them use scientific public health evidence to present data to inform policy surrounding an issue.
30 minutes **Book**	**Readings** • Tell participants to read sections 1 and 2 and to answer the questions at the end. **Note:** If this module is being completed one-on-one with a mentor, the learner can read at his or her own pace and arrange for meetings with his/her mentor.

30 minutes
 	
 Group
 	
 Prepare
	Group discussion
	 • Lead a group discussion on local public health policies and categories and characteristics of policies.
	 • Prepare at least **two examples of public health policy** in your country to discuss with the participants. In general terms, describe the health problem, affected population, the group(s) and organizations involved in advocating for the policy, the key players, and what their interests are in the policy, the cost of implementing the policy, and other information key to that policy. Point out or ask the participant(s) about the characteristics of the policies.
	 • Ask the participants:
	  o What are the characteristics of these policies?
	  o Are these policies organizational, community, or national? Ask participants to provide their own examples of policies at each of these levels. Note that policy can also be international.

SECTION 3: DEVELOPING HEALTH POLICY

Total estimated time: 3 hours
Group discussion: 20 minutes
Readings (step 1): up to 15 minutes

Discussion of example: 20 minutes
Readings (step 2): up to 20 minutes
Discussion of example: 20 minutes
Readings (step 3): up to 20 minutes
Discussion of example: 20 minutes
Readings (step 4): up to 10 minutes
Discussion of example: 20 minutes
Review questions and key points: 10 minutes

Duration/ Session Type	What to Do/What to Say

20 minutes
 	
 Group
 	
 Prepare
	Group Discussion
	 • Explain to participants that in this section they will learn about the process for developing health policy.
	 • Lead a group discussion on a health issue under debate. Potential examples include access to health care, health insurance availability, healthcare in remote areas, vaccine coverage in vulnerable populations, funding of new health initiatives, or the intersection of other disciplines (such as agriculture or socially supported programs) and health. Please note that **this is not a lecture**. It should be an interactive discussion that could be supported by PowerPoint slides (optional), whereby you discuss the following with the participant(s):
	    ○ What are the basic facts of the health problem?
	    ○ Who is involved in this issue?
	    ○ What potential interventions or policy changes are being discussed?
	    ○ What are the merits of the viewpoints on either side of the issue?
	    ○ What are the barriers or challenges to implementing interventions or policy changes?
	    ○ Who is (or who needs to take action to begin the process of) developing policy actions around this issue?
	 • Explain that in this section of the module participants will gain an understanding of how policies are developed for issues such as the example you have just discussed.
	
	 Note: You may want to prepare a list of resources or contacts where participants may be able to find additional information specific to NCDs within your country or agency. Share this list with the

Duration/ Session Type	What to Do/What to Say
	participant in written or electronic form.
15 minutes 📖 Book	**Readings - Step 1** • Tell participants to read section 3, step 1, including the example. • Tell them that if they have time, they should work individually or with a colleague to answer the questions in the example.
20 minutes 💬 Group	**Discussion of example** Discuss the example of setting the agenda for the cervical cancer issue in Country X from the participant workbook. You may ask the following questions: • Based on the example, there are different factors that would lead to the issue of cervical cancer being placed on the health policy agenda. What are some of the priority issues and why are they important to put on the agenda? • If this was a health issue in your country, what are some factors that would influence the issue moving onto the agenda?
20 minutes 📖 Book	**Readings - Step 2** • Tell participants to read section 3, step 2, including the example. • Tell them that if they have time, they should work individually or with a colleague to answer the questions in the example.

20 minutes
 	
💬
 	
Group
	Discussion of example
	Discuss the example of defining the cervical cancer issue in Country X from the participant workbook. Review participants' responses to the following questions:
	• How would you describe the problem of cervical cancer in Country X?
	  ○ *Cervical cancer is a malignant neoplasm of the cervix uteri or cervical area.*
	• What is the cause of the problem?
	  ○ *Cervical cancer is caused by infection of cervical cells with Human Papilloma Virus (HPV), which can be transmitted through sexual contact.*
	• Who is affected?
	  ○ *Women who have had sex may be affected.*
	• What is known about the history of the problem in the county?

Duration/ Session Type	What to Do/What to Say

	o *Cervical cancer is one of the most frequent cancers, especially among women in developing countries. The burden of this disease in this country is higher than other countries in the region but prevention measures that have proven effective in resourced settings have not been shown to have a favorable impact in lower-resource settings.*
	    o *Screening through Pap smear is the standard of care but is not necessarily effective in developing countries for multiple reasons. Alternatives to the Pap smear for cervical cancer screening are available and may be tenable visual inspection with acetic acid (VIA). Testing for HPV DNA has been piloted in developing countries.*
	
	• What effective interventions have been identified to address the problem?
	    o *Regular screening of women for HPV infection, biopsy of lesions, and treatment of precancerous lesions is the standard of care for reducing cervical cancer morbidity and mortality.*
	
	• How would you quantify the scope of the issue? (Incidence and mortality rates)
	    o *The risk of cervical cancer in the country is at least twice that of the world in general, and approximately 30% higher than the regional average. The mortality rates show a similar pattern.*
	
	• <u>Discussion Point:</u> A policy could be developed that would have a positive impact on the cervical cancer issue in Country X. Universal recommendations for Pap smears should not be made without further understanding of the factors that lead to poor diagnosis, follow up, and/or treatment. An assessment of resources and skill sets available could lead to a recommendation for implementing policy concerning DNA screening or VIA.
	
	• If time permits, ask participants to go to the International Agency for Research on Cancer (IARC) website at http://globocan.iarc.fr/ to quantify the morbidity and mortality due to cervical cancer in **their** country. Explore the data available from IARC and other sources before the class or your meeting with your trainee. Be prepared to help them find any available data. If trainees have difficulty accessing information from the IARC website, visit the

Duration/ Session Type	What to Do/What to Say
	website with them and explore the options together.
20 minutes 📖 Book	**Readings - Step 3** • Tell participants to read section 3, step 3, including the example. • Tell them that if they have time, they should work individually or with a colleague to answer the questions in the example.

20 minutes
 	
💬
 	
Group
	Discussion of example
	Discuss the example of developing policy options for the cervical cancer issue in Country X from the participant workbook. You may ask the following questions:
	
	• If Country X was *your* country, would the policy options described in the example be feasible? Explain.
	    ○ *The facilitator should help guide the discussion to cover the categories covered in step 2 of describing the problem, its cause, who is affected, its history in their country (including what has and has not worked to address it), methods to quantify the problem, as well as measure success.*
	
	• What category would you direct a cervical cancer policy in your country? Why?
	    ○ *Answers will vary according to the policy direction the student wishes to pursue. The facilitator needs to make sure the student's discussion focuses on evidence-based interventions as are discussed in the module.*
	
	• Consider the existing infrastructure, policy, and practices in your country. Are there solutions to the cervical cancer issue that could be more easily implemented through program changes or updates than through policy changes in your country?
	    ○ *Answers will vary but the facilitator should ensure any initiatives proposed have an evidence basis for their effectiveness in this population.*
	
	• How would you determine the costs for implementing the potential policy options?
	    ○ *Answers will vary but the facilitator should ensure that the student has specific approaches with currently-accessible data so that they can develop realistic cost estimates.*
	
	• What potential barriers to implementation do you foresee for each policy option in your country?
	    ○ *Answers will vary by country but the student response should*

Duration/ Session Type	What to Do/What to Say
	focus on political, financial, physical infrastructure, staff training, and sustainability barriers to implementation. **Resource that might be helpful for this discussion:** Griffiths J, Maggs H, Geoarge E. *'Stakeholder Involvement',* Background paper prepared for the WHO/WEF Joint Event on Preventing Noncommunicable Diseases in the Workplace (Dalian/ China, September 2007). Available at http://www.who.int/dietphysicalactivity/griffiths-stakeholder-involvement.pdf
10 minutes 📖 Book	**Readings - Step 4** • Tell participants to read section 3, step 4, including the example. • Tell them that if they have time, they should work individually or with a colleague to answer the questions in the example.

20 minutes
 	
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 Group
	Discussion of example
	 Discuss the example of making recommendations for the cervical cancer issue in Country X from the participant workbook. You may ask the following questions:
	
	 1. What is the scientific rationale and evidence you will use to support this policy recommendation?
	     o *Answers should include information about reduction in morbidity and mortality.*
	
	 2. Is the policy feasible and practical to implement in Country X?
	     o *Participants should include what is known about the infrastructure, personnel, resources, and acceptability by the target population and stakeholders.*
	
	 3. Do you think the severity of the health problem warrants such a policy? Explain.
	     o *The undue burden of cervical cancer in developing countries and in the case study country does warrant a fairly extensive policy.*
	
	 4. Does the policy address the key factors that will influence the health problem? Explain.
	     o *HPV screening is a cost-effective approach that should provide more information about the high rates of cervical cancer thought to be present in the country. The facilitator*

Duration/ Session Type	What to Do/What to Say

	should help guide the discussion to whether screening alone will be effective in reducing the cervical cancer burden (only when it is paired diagnosis and treatment). Yet, there seems to be considerable hesitation to any screening and the pilot-to-scale up approach paired with research to understand barriers should help to address these initial issues while the country works on developing a diagnostic and treatment policy that is sustainable.
	
	o *Encourage the students to reflect on whether the policy affects the number of women screened, the number of health facilities, direct funding allocation for service, etc. These are factors which can influence the health problem (high cervical cancer rates).*
	
	5. What economic factors and other non-health issues should you consider before implementing this policy in *your country?*
	  o *The following may be considered:*
	    ▪ *Supplies, equipment, laboratory expenses, community outreach, and staff training costs*
	    ▪ *Government voucher programs which pay for health services or transportation, etc.*
	    ▪ *The cost of paying increased staff/labor costs*
	    ▪ *Other competing infectious and chronic diseases affecting the country that need to also be addressed*
	    ▪ *Is the policy asking people to engage in stigmatized health interventions or interventions that are not culturally appropriate?*
	
	Resource that might be helpful for this discussion:
	Cancer control: knowledge into action: WHO guide for effective programmes; module 6: Policy and Advocacy. ISBN 92 4 154752 9 (NLM classification: QZ 200). Available at: http://www.who.int/cancer/FINAL-Advocacy-Module%206.pdf.
	World Health Organization. *National cancer control programmes: policies and managerial guidelines.* Geneva, Switzerland: WHO, 2002.

Duration/ Session Type	What to Do/What to Say
10 minutes 📖 Book	**Review questions and key points** Ask participants to answer the review questions and read the key points.

SECTION 4: PRESENTING THE EVIDENCE

Total estimated time: 1 hour, 15 minutes
Discussion: 15 minutes
Readings, review questions, and key points: up to 45 minutes
Discussion: 15 minutes

Duration/ Session Type	What to Do/What to Say
15 minutes 💬 Group ☑️ Prepare	**Discussion** • Lead a group discussion on policy briefs. • Remind participants that this is not a class on writing skills. • Show the participant(s) at least one example of a policy brief or presentation that has been used within your department or agency. Ask the participants such questions as: o Who is this brief written for? o Who <u>should</u> it have been written for?
45 minutes 📖 Book	**Readings, review questions, and key points** • Tell participants to read section 4 including the example and the policy brief in Appendix C. • Ask participants to answer the review questions and read the key points.
15 minutes 💬 Group	**Discussion** • Lead a group discussion on tailoring the message. Ask participants for some key factors to keep in mind when presenting a specific message to a decision-maker. Responses should include: o What does this decision-maker care most about and what is within their power to accomplish? o What professional/technical background does this decision-maker have? o What is the best way to present information to this decision-

Duration/ Session Type	What to Do/What to Say
	maker?
	• Lead a group discussion about (oral) presentation format. Key points should include:
	○ Respect the amount of time that you have to meet with the decision-maker.
	○ Whatever format you use to present, be clear and concise, keep to your main points, and leave enough time for questions and discussion.
	○ Present the most important information first, and auxiliary or supporting information second.
	○ Tailor the presentation to the intended audience.
	○ Keep PowerPoint or oral presentations clean and simple and well within the allotted time.

SECTION 5: HEALTH POLICY IMPLEMENTATION AND SECTION 6: CASE STUDY AND CONCLUSION

Total estimated time: 6 hours, 30 minutes
Readings: up to 5 minutes
Discussion: 15 minutes
Review Field Guidelines: 10 minutes
Case Study: 5 hours. 30 minutes
Conclusion: 15 minutes

Duration/ Session Type	What to Do/What to Say
5 minutes Book	**Readings** Ask participants to read the very brief sections: 5 and 6.
15 minutes Group Prepare	**Discussion** Discuss a policy in your country that was implemented, evaluated, and revised. Encourage participants to provide examples.
10 minutes	**Review Field Guidelines**

Duration/ Session Type	What to Do/What to Say
Group	• Distribute the Field Guidelines for Using Science to Inform Policy. • Briefly explain how participants can use the Field Guidelines after the training. **Note:** If you are giving this training in classroom, this might be an appropriate place to end for the day and begin the case study the following day.
5 hours, 30 minutes **Pencil**	**Case Study** • Distribute the case study. • Divide participants into small working groups. • Ask participants to read the background information and complete one section at a time. • Review the groups' responses after they complete each section. • Refer to the facilitator version of the case study for possible answers.
15 minutes **Group**	**Conclusion** • Lead a brief conclusion of the module and case study. • Ask participants how they will use what they learned back at the job, what obstacles they might face, and how they can overcome them.