This chapter contains four activities and one assessment for training community health workers (CHWs) on the basics of public health and how to apply a public health approach to their work. Unlike a medical model, public health looks beyond individual client or patient diagnosis and treatment to examine the broader social, environmental, political, and historical causes and contributing factors that affect the health of communities. CHWs can employ a public health framework to promote the health of the communities they serve.

This chapter corresponds to, and is meant to be used with, Chapter 3, “An Introduction to Public Health,” from Foundations for Community Health Workers, Second Edition.
CHAPTER AT A GLANCE

An Introduction to Public Health

CHWs often work for public health–based programs or in clinical settings that are striving to apply public health concepts. Being familiar with public health helps CHWs working in all settings and supports enhanced participation in both the evaluation and development of programs and services. The application of key public health concepts—such as using an ecological model and emphasizing prevention—supports CHWs to provide quality services to individuals, families, groups, and communities.

This guide is meant to be used when teaching/training Chapter 3 of Foundations for Community Health Workers, Second Edition. We have included step-by-step activities for key sections, not the entire chapter. We recommend reading Chapter 3 in Foundations, as the textbook provides more material about public health, as well as a deeper explanation of concepts related to activities in this guide.

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<td>This activity provides learners with the opportunity to analyze and discuss several public health concepts. Small group discussion and presentation. Includes: ● Learner Handout 3.1 A: Key Concepts of Public Health, Small Group Instructions</td>
<td>▶ Define public health. ▶ Identify three key concepts of public health. ▶ Discuss the relevance of public health concepts to the communities with which CHWs typically work.</td>
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<td><strong>ACTIVITY 3.2: THE ECOLOGICAL MODEL AND SOCIAL DETERMINANTS OF HEALTH (60–75 MINUTES)</strong></td>
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<td>This activity introduces learners to the concept of the ecological model, a common framework used in public health. Small and large group discussion. Includes: ● Learner Handout 3.2 A: Ecological Model Diagram</td>
<td>▶ Analyze how the four levels of the ecological model influence health status. ▶ Discuss interactions between the four levels of the ecological model. ▶ Explain how an ecological model can guide CHWs in their work with clients and communities.</td>
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## CHAPTER AT A GLANCE (continued)

### An Introduction to Public Health

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| **ACTIVITY 3.3: COMPARING PUBLIC HEALTH AND MEDICINE (30–45 MINUTES)** | - Identify key differences between the fields of public health and medicine.  
- Discuss how the disciplines of public health and medicine can complement and reinforce each other.  
- Discuss public health approaches CHWs can take when working with clients. |
| This activity allows learners to analyze the difference between public health and medical frameworks, and between population-based and patient-centered approaches to addressing health issues and inequalities.  
Card sort in pairs and large group discussion  
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- Learner Handout 3.3 A: Public Health or Medicine Cards |  

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### Activity 3.1

**Defining Public Health**

This activity provides learners with an opportunity to define and discuss several key concepts for the field of public health. This activity works best if learners have read Chapter 3 ahead of time. Learners should feel free to refer to the *Foundations* textbook for this activity.

#### 1 Introduction: Defining Public Health

Frame this activity as an opportunity for learners to enhance their knowledge of key public health concepts. Explain that learners will be divided into small groups to discuss a key public health concept, and that they should prepare to report back and share their ideas with the large group.

Initiate discussion among learners by asking them the following question:

- How do you define public health?

Record their answers on the board or on flip-chart paper, and ask further prompting questions as necessary to support learners in defining the concept. For example, you might ask the following:

- How does public health promote our health?
- What is an example of a public health program or policy?

Next, review with learners this definition of public health from the World Health Organization (WHO):

> Public health refers to all organized measures (either public or private) to prevent disease, promote health, and prolong life among the population as a whole. Its activities aim to provide conditions in which people can be healthy and focus on entire populations, not on individual patients or diseases. Thus, public health is concerned with the total system and not only the eradication of a particular disease. (WHO, n.d.)
Defining Public Health (continued)

Ask learners to expand upon the WHO definition by asking this:

- Public health aims to provide conditions in which people can be healthy. What are the conditions that all people require in order to be healthy?

Record these ideas on the board or on flip-chart paper. As necessary, continue to pose additional prompting questions such as these:

- What do children and families need in order to stay healthy?
- What types of conditions or resources that are essential for being healthy are sometimes missing?

The list of conditions required for health should be broad and mirror the concepts provided in Chapter 3 of *Foundations* including, for example, access to physical safety, healthy food, safe drinking water and air quality, secure housing, quality education, employment at a living wage, affordable and culturally appropriate health care, and civil and human rights protections. As necessary, add any of these conditions—and others—to the list that learners created.

2 Public Health Concepts: Small Group Activity

Explain that learners will work in small groups to discuss a key public health concept highlighted in the *Foundations* textbook. They will be asked to define the concept and to discuss its relevance for the communities with which CHWs work. At the end of this activity, learners will be asked to report back and to share their ideas with the large group.

Assign learners to three small groups, and distribute a different topic and list of questions for discussion to each group. Explain that learners will have approximately 10 minutes to answer the questions listed on their worksheet.

Circulate among groups and answer questions as necessary, noting issues for the large group discussion.

3 Small Group Report Back

Ask each group to briefly present their public health concept to the large group. They should start by naming the concept that they worked on (such as public health is evidence based), and do their best to provide a clear explanation of the concept. Each group should also provide an example of the concept and briefly highlight its relevance and benefit for the health of communities with which CHWs work.

After all three groups have presented, facilitate discussion by asking the following types of questions:

- Is it easy to define key concepts in public health?
- Did any of these concepts surprise you?
- What are some other key concepts of public health?
Defining Public Health (continued)

If the learners haven’t fully explained or addressed the concepts assigned, you may wish to pose further questions, such as these, for each group:

Public health is population based.

- In public health, how are populations defined?
- Why might people in a population have similar risk factors for disease?
- How might knowing about health issues in a population affect the way a CHW works with individual clients from that population?

Public health is concerned with health inequalities.

- Are health inequalities inevitable?
  Health inequalities are not inevitable due to genetics or other biological differences between communities. They are the consequence of the way society structures access to the basic resources, rights, and opportunities that everyone requires in order to live long and healthy lives.
- What health inequalities affect your community?
- Do you think a role of CHWs is to advocate for health equality?

Public health is evidence based.

- Why is it important for public health to be evidence based?
  Instead of doing work we think will be effective, we want to invest our money and resources in programs or on policies that have already been shown to be effective in similar populations (or on adapting and testing similar models with different populations).
- Are public health efforts always evidence based? Why might programs or policies be implemented that are not evidence based?
  Unfortunately, political and religious beliefs and goals sometimes disregard scientific evidence. For example, although science had shown for many years that nicotine is addictive, it wasn’t until 1997 that a cigarette company finally admitted that smoking is addictive and deadly and that companies had long targeted teens as customers. Similarly, the federal government and many state governments banned funding for syringe exchange programs long after they had been shown to be effective in preventing HIV and hepatitis C infections.
- Why might it be helpful for CHWs to keep up to date with public health issues?
Defining Public Health  (continued)

4 Reinforcement

This is an opportunity to reinforce some key messages from the activity, from Foundations, and from other resources, such as the following:

- Public health is distinguished by an emphasis on the public as a whole—on ways to improve the health of entire populations or communities who share one or more common characteristics such as geography (where they live), age, sex, ethnicity, immigration status, language, health-related behaviors, or health conditions. The focus in public health is on designing programs and policies that can prevent illness and injury or improve the health of everyone.

- For many of us, working to eliminate unequal rates of illness and death between populations is the central challenge facing public health today.

- As frontline workers who often have the most contact with the communities that experience disproportionately high rates of illness and death, CHWs have a significant role to play in the movement to eliminate health disparities.

- Public health is evidence based. It’s not good enough to just work from a hunch or a good idea—even if it starts that way, it’s important to carefully monitor and evaluate which programs and services truly work to promote health and related outcomes.

- Understanding and being able to discuss public health concepts helps CHWs build professional relationships and participate in the evaluation and design of programs and services.

Reference

Activity 3.1

Learner Handout 3.1 A: Key Concepts of Public Health Small Group Instructions

Group #1: Public Health Is Population Based

Please do your best as a group to answer the following questions. Keep in mind that you will be asked to share your ideas with the large group in a few minutes.

- What does it mean to say that public health is population based?
- How does the field of public health define a population?
- What population(s) do you belong to?
- Can you provide an example of a population-based public health program?
- What is the value or significance of population-based health promotion for the communities with which CHWs work?

Group #2: Public Health Is Concerned with Health Inequalities

Please do your best as a group to answer the following questions. Keep in mind that you will be asked to share your ideas with the large group in a few minutes.

- Why is the field of public health concerned with health inequalities?
- How does the field of public health try to change and reduce health inequalities?
- Can you provide an example of how public health works to reduce health inequalities?
- How is public health’s emphasis on reducing health inequalities relevant and valuable to the communities with which CHWs work?

Group #3: Public Health Is Evidence Based

Please do your best as a group to answer the following questions. Keep in mind that you will be asked to share your ideas with the large group in a few minutes.

- What does it mean to say that public health is evidence based?
- What type of evidence does the field of public health use?
- Can you provide an example of an evidence-based public health program or policy?
- How may evidence-based public health policies and programs benefit the communities with which CHWs work?
The Ecological Model of Health

This activity introduces learners to the concept of the ecological model, a common framework used in public health. The ecological model (provided as a handout at the end of this activity) shows concentric circles or ovals representing four different levels that influence illness and health. These levels include individual factors; relationships with family and friends; the community or neighborhood in which people live, work, or go to school; and broader society. The ecological model guides health and public health practitioners in how they view and address health in the broader context of people's lives.

1 Introduction to the Ecological Model

Introduce the activity by explaining that the ecological model is a common framework used in public health. It depicts a wide range of factors that influence health status. We strongly encourage CHWs to apply an ecological model to their work with individual clients, families, groups, and communities.

2 Defining the Four Levels of the Ecological Model: Large Group Discussion

Refer to the drawing of the ecological model on the board or flip-chart paper as you review it. Note that the ecological model has four levels—the individual level; the level that represents relationships with family and friends; the level of the community or neighborhood where people live; and the societal level, which includes laws, public policies, and economic, political, and social systems.

Review each level by asking learners to quickly brainstorm a few examples of the types of factors that may influence health and illness at each level of the ecological model.

Activity 3.2

60–75 MINUTES

MATERIALS NEEDED

- Copies of “Learner Handout 3.2 A: Ecological Model Diagram” (included at the end of this activity)
- Post-its and pens for each small group

TRAINER PREPARATION

- Review Chapter 3.
- Draw the four concentric circles or ovals of the ecological model on the board or on flip-chart paper at the front of the room.
- Identify an example of a common, well-known health issue to use for this exercise, such as diabetes, high blood pressure, depression, or lung cancer.
- Optional: Prepare a slide or handout with basic background information on the health issue, including overview, prevalence, communities most affected, causes, and consequences.

LEARNING OUTCOMES

After this activity, learners will be able to:

- Analyze how the four levels of the ecological model influence health status.
- Discuss interactions between the four levels of the ecological model.
- Explain how an ecological model can guide CHWs in their work with clients and communities.
The Ecological Model of Health (continued)

3 Small Group Activity
Explain to learners that you will be asking them to work in small groups to apply the four levels of the ecological model to the topic of diabetes (or another health or public health topic that learners are fairly familiar with). Assign learners to work in one of four groups, each representing one of the levels of the ecological model. Distribute a stack of Post-its or larger pieces of paper and markers to each group. Explain that their task is to quickly brainstorm a list of factors at their level of the ecological model that may influence—in negative or positive ways—risks for developing and living with diabetes.
Circulate among the small groups as they work, clarifying directions and answering questions or concerns. Provide just 5 to 7 minutes for groups to complete brainstorming.

4 Report Back and Large Group Discussion
Ask each small group, in turn, to post their ideas on the board in the circle or category that they worked on. Start with the group that worked on individual-level factors that influence risks for diabetes and the health of people living with diabetes. As they post the examples of individual factors, ask learners to read them aloud to the large group.
Facilitate discussion among the group, taking questions, comments, and new ideas for additional individual-level factors. Continue by asking the other small groups, one at a time, to post their ideas, and encouraging discussion among the large group.
Continue to facilitate discussion until the group has created a large map of several dozen factors—posted at all levels of the ecological model—that influence risks for diabetes and the health status of those living with diabetes. Ask the group if any key factors seem to be missing. If so, have them write them down and post them where they belong on the ecological model. If you feel that any key factors still seem to be missing, please add these to the model and share them with the group.

5 The Value of the Ecological Model for the Work of CHWs: Large Group Discussion
Facilitate discussion among learners about the value or significance of the ecological model by asking questions such as these:
- Why is the ecological model drawn as four nesting or concentric circles instead of just four circles side by side? How do the different levels of the ecological model interact with each other?

For example, the concentric circles help us to remember that the health of individuals is also significantly influenced by their families, the communities they belong to, and the broader society in which they live. The concentric circles also represent dynamic relationships between the four levels of the ecological model. For example, family systems and practices influence individual values, emotions, and behavior. Societal
policies influence the level and type of resources available to communities and families, and so on.

- Why do you think the model is called “ecological?” What does that suggest to you?

  For example, an ecological perspective encourages us to look at broader systems that influence health. It reminds us that individual health and behaviors are shaped and influenced by family and social factors and shouldn’t be viewed or analyzed in isolation (on their own). We cannot separate an individual’s health status or choices from the social environment in which they live.

- In what ways is an ecological model important for understanding health and illness?

  For example, the ecological model provides a more holistic and accurate understanding of the full range of factors that influence health and illness. Medical research has documented the role that genetics, other biological factors, and behavior play in determining health. Public health research has documented the role that broader social, economic, and political policies and practices have in determining rates of illness and death. We need to take all of this information into consideration when we are trying to develop programs, policies, and services designed to promote health and wellness.

- What may a CHW or other provider miss if they are only looking at part of the picture, such as only the individual level?

  For example, you may wish to emphasize that in our society, we tend to focus on and treat health by looking at individual behaviors, beliefs, and genetic predisposition, without looking at the social and systemic causes of ill health, disease, and death. Although individual actions matter, focusing only on the individual can cause us to miss the bigger picture. You may want to give an example, such as diabetes.

  Diabetes is often treated by individual lifestyle changes, such as encouraging diet changes and exercise. But the ecological model framework invites us to question what social factors may influence the person’s health. For example, does the person live in a food desert (a place—often in poor and under-resourced neighborhoods—without access to fresh fruits and vegetables)? Is the only place to buy healthy foods inaccessible due to lack of public transportation, community violence, or other issues? Does the person not have access to a kitchen (such as in a shelter or residential hotel), making it difficult to store or cook food?

  By failing to consider the influence of family and broader social policies, medical providers sometimes over-emphasize the role of individual behavior and choices on their patient’s health. This is not a fully accurate picture of a person’s health and can sometimes lead to blaming the patient in a way that shames them and makes it harder for them to do what they can to manage their own health.
How can an ecological model benefit the work that CHWs do with clients and communities?

By applying ecological models to guide their work, CHWs can avoid the common pitfall of focusing too much on individual-level factors in a way that may unintentionally disempower clients. It can help CHWs to more accurately see and consider the whole range of factors that are operating to determine a person's health. It reminds both CHWs and the clients they work with to look outside of the exam or meeting room for possible resources that can promote health, such as the value of family, community organizations, resources, and programs.

For CHWs who are working in public health settings, or on projects that involve community organizing or advocacy, an ecological perspective is essential for creating effective social change.

6 The Social Determinants of Health: Large Group Discussion

Take an opportunity to highlight that that the two outer-most circles of the ecological model (depicting community- and societal-level factors) represent the social determinants of health. Ask learners to define social determinants of health.

Social determinants are the social, economic, and political policies, systems, and dynamics that cause and contribute to illness and health. You may wish to share the definition of social determinants of health provided by the World Health Organization (WHO):

The social determinants of health are the conditions in which people are born, grow, live, work, and age. These circumstances are shaped by the distribution of money, power, and resources at global, national, and local levels. (WHO, n.d.)

As emphasized in Chapter 3, public health research has documented that social determinants have a much greater impact on human health than the factors that the US health care system typically emphasizes: biological and behavior factors.

7 Reinforcement

As you close out the discussion, reinforce key points shared by learners, from the textbook and other sources, such as the following:

- Although genetics do influence health, the social and economic conditions in which we live play a much greater role in determining the health of communities.
- This can be difficult to accept because so much of how we talk about health in this country is based on individual choices, behavior, and genetic predisposition.
- Social factors, such as community violence, air pollution, contaminated water, lifelong poverty, institutional racism, and unemployment produce health inequalities that mean that some populations get sick and die much earlier and more often than others.
The ecological model is a helpful framework to look beyond the individual to understand what promotes and what hinders health in communities. Using a tool like the ecological model can help identify points of intervention that will most affect health outcomes.

The four levels of the ecological model are concentric circles or ovals instead of separate circles because they influence one another and are influenced by one another. No level exists in a vacuum.

Reference
Activity 3.2

Learner Handout 3.2 A: Ecological Model Diagram

Society  Community  Relationships  Individual
Comparing Public Health and Medicine

This activity engages learners in analyzing key differences between the fields of public health and medicine. Learners will also begin to highlight ways that medicine and public health can reinforce and complement each other.

1 Introduction

Frame this activity as an opportunity for learners to distinguish key differences between the fields of medicine and public health. Explain that it is important for CHWs to understand these differences and the unique benefits of both medical and public health models. CHWs may work for programs that are primarily guided by medical models, by public health models or, increasingly, in programs that seek to promote greater integration between the two disciplines. In some agencies, CHWs take an important role in promoting this integration between medicine and public health.

2 Key Differences between Medicine and Public Health: Large Group Discussion

Draw or refer to a blank grid on a board or flip-chart paper. The grid should have three columns, with the first labeled “Factor,” the second labeled “Medicine,” and the third “Public Health.” Explain to learners that you want them to highlight key differences between medicine and public health.

Start by asking learners what the level of service is—or who the people served are—by medicine and public health; write “Level of service” in the first column, under Factor, and record their answers in the next two columns. Facilitate discussion to highlight the key differences. Medicine, for example, is typically focused on serving individual patients, whereas public health focuses on the needs of populations.

Continue to ask learners to highlight key differences based on the following factors. Write each factor in the
Comparing Public Health and Medicine  (continued)

first column and record answers in the next two, depending on whether the answer is public health or medicine. See the following grid for examples of potential answers.

- **Diagnosis.** How do medicine and public health diagnose illness or other health conditions or problems? What types of health issues are diagnosed?
- **Treatment.** What types of treatments do medicine and public health typically prescribe or implement?
- **Prevention.** What level or type of prevention do medicine and public health emphasize?
- **Collaboration/Partnership.** What types of colleagues or organizations do the fields of medicine and public health collaborate or partner with?

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>MEDICINE</th>
<th>PUBLIC HEALTH</th>
</tr>
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<tbody>
<tr>
<td>Level of service (or people to be served)</td>
<td>Individual patients</td>
<td>Populations</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>The use of interviews, exams, and tests to identify the biological, physical, and behavioral causes of illness within the individual.</td>
<td>The use of epidemiology and other scientific methods to investigate and document rates of illness within a population, and to identify social, economic, political, and behavioral causes and contributing factors. Both health and social issues (such as homelessness and segregation) are diagnosed.</td>
</tr>
<tr>
<td>Treatment</td>
<td>Treatments typically include medications, surgical interventions, health education, and directions for individual behavior change.</td>
<td>Treatments include the design of programs and services for all members of a population, and the design of new policies to help prevent, diagnose, reduce, and manage illness.</td>
</tr>
<tr>
<td>Prevention</td>
<td>Downstream interventions and secondary or tertiary prevention. The emphasis is on preventing the progression of disease after it has been diagnosed.</td>
<td>Upstream interventions and primary prevention, or preventing the initial development of disease or other health conditions.</td>
</tr>
</tbody>
</table>
Comparing Public Health and Medicine  

(continued)

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>MEDICINE</th>
<th>PUBLIC HEALTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration/Partnership</td>
<td>Primarily with other licensed providers and specialists such as nurses, psychiatrists, oncologists, and so on.</td>
<td>With medical providers, policy makers, government agencies, and community-based health and social service providers, educational institutions, and so on.</td>
</tr>
<tr>
<td>Other (trainers or learners may identify other factors for distinguishing between medicine and public health)</td>
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You may wish to highlight that whereas medicine typically focuses on the physical and biological causes of illness within individuals, public health looks beyond the human body to examine the causes of illness within communities and populations. It asks questions such as, “What factors are causing community X to experience such high rates of chronic conditions?” and “What factors are causing community Z to have significantly higher rates of death than community Y?” Public health understands that social determinants—or economic, social, and political policies and systems—are the primary factors that drive different rates of illness, disability, and death among populations. Leave the grid up on the board as you continue to facilitate this training activity.

3 Card Sort in Pairs

Assign learners to work in teams of two, and provide each pair with a set of cards (either the asthma deck of cards or the hypertension deck). Tell learners that their task is to determine whether each card belongs in the category of public health or medicine. Teams should try to reach a decision together and place cards in one of three places: a column for medicine, a column for public health, and a third column that can represent the integration of medicine and public health. Each deck also includes two blank cards for learners to fill in: one for an additional example of a public health approach to this health issue, and one for an additional example of a medical approach to addressing the health issue.

OPTION If you are pressed for time, you can have each pair do the activity using the same health topic and set of cards. This saves time during the debriefing discussion described next.
Comparing Public Health and Medicine (continued)

4 Large Group Debrief and Discussion

Starting with the topic of hypertension, use a popcorn technique to ask each team to report on how they categorized their deck of cards (medicine, public health, or the integration of the two fields). Start by asking one team to share how they categorized two or three cards, and encourage other teams who worked with the hypertension deck of cards to raise their hands and share their comments if they disagree with how the cards are categorized. Proceed by asking a different team to share their placement of the next two or three cards, continuing to facilitate discussion and debate, and encouraging learners to refer back to the earlier discussion about key differences between medicine and public health.

Now ask for a couple of volunteers to share what they wrote on the cards as their own examples of medical and public health approaches to addressing hypertension. Allow time for discussion and to address any confusion about the distinction between medicine and public health.

Repeat the process for the asthma cards.

5 Large Group Discussion

Facilitate discussion among the large group by posing questions such as these:

- What are the key benefits or strengths of the field of medicine for the communities that CHWs work with?
- What are the key benefits or strengths of the field of public health for the communities that CHWs work with?
- How do the fields of medicine and public health complement or reinforce each other?
- How can the communities that CHWs serve benefit from greater integration between medicine and public health?

As necessary, you may wish to emphasize that low-income and other vulnerable communities typically have a lot to gain from both quality medical services and local public health initiatives. They require both in order to achieve maximum health and to reduce rates of illness, disability, and premature death. Greater integration of medicine and public health strengthens the quality of each: medical services that encompass an ecological perspective tend to be more effective in providing relevant services (upstream medicine); and public health programs and policies that partner and provide linkages to local health care services can promote testing, early diagnosis, and more effective management of health conditions.
Comparing Public Health and Medicine  (continued)

6 Reinforcement
As you close out the activity, you may wish to reinforce the following key points:

- In general, medicine focuses on diagnosing and treating illness in individuals, whereas public health strives to diagnose, treat, and prevent patterns of illness within a population.

- Whereas medicine views the key causes of illness as biological, genetic, and behavioral, public health understands that patterns of illness and health are primarily caused by larger social, economic, and political policies and systems.

- A key value of public health is the focus on primary prevention, or addressing the root causes of illness within populations. Effective primary prevention can reduce rates of illness within a population and the need for medical intervention or services.

- More integration between medicine and public health will promote improved prevention and management of illness for individuals, families, and communities.

- CHWs can sometimes help medical providers broaden their understanding of the range of factors that influence the health status of their patients. CHWs often have a better understanding of community-level factors that influence health status—such as the lack of access to safety, quality housing, food, education, and employment.
### HYPERTENSION

<table>
<thead>
<tr>
<th>Hypertension</th>
<th>Hypertension</th>
<th>Hypertension</th>
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</thead>
<tbody>
<tr>
<td>Telling patient to reduce salt intake</td>
<td>Checking thyroid function</td>
<td>Providing stop smoking programs</td>
</tr>
<tr>
<td>Taking blood pressure</td>
<td>Taking blood pressure medication</td>
<td>Promoting broader access to alcohol and substance use treatment</td>
</tr>
<tr>
<td>Teaching meditation</td>
<td>Increasing community access to fruits and vegetables and cooking facilities</td>
<td>Educating the public on how to prevent high blood pressure</td>
</tr>
<tr>
<td>Suing the tobacco companies for the health costs that result from the product they sell</td>
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</tbody>
</table>

Hypertension

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Learner Handout 3.3 A: Public Health or Medicine Cards
(continued)

ASTHMA

Asthma
- Advising patients to lose weight

Asthma
- Creating policy to reduce fuel emissions from vehicles

Asthma
- Providing stop smoking programs

Asthma
- Requiring mold removal from public housing projects

Asthma
- Advising patients to increase physical activity

Asthma
- Increasing amount of green spaces (city parks with trees, grass, and fresh air)

Asthma
- Teaching meditation and stress reduction

Asthma
- Requiring manufacturing companies to reduce air pollution

Asthma
- Suing the tobacco companies for the health costs that result from the product they sell

Asthma
- Prescribing an inhaler

Asthma

Asthma

Asthma

Activity 3.4

The Public Health Emphasis on Prevention

This activity engages learners in discussing the emphasis on prevention in the field of public health. Learners will review “The Upstream Story of Prevention” from Chapter 3 and discuss the differences between upstream and downstream health interventions. Concepts of primary, secondary, and tertiary prevention will be discussed, and learners will be asked to generate examples of different levels of prevention applied to the topic of gun violence.

1 Introduction

Frame this activity as an opportunity for learners to discuss the value of prevention in public health. Learners will discuss different levels of prevention and how they can be applied to promote the health of vulnerable clients and communities.

2 Upstream and Downstream Interventions: Large Group Discussion

Draw a quick representation of a river on the board or flip-chart paper. You do not have to be an artist and draw a beautiful river—two squiggly lines are fine. Label one end of the river “upstream” and the other “downstream.” Tell learners that you are going to read the story, “The Upstream Story of Prevention,” a classic public health story, from Chapter 3.

Four hikers walking beside a river heard cries for help and saw a man struggling against the current, trying to reach the shore. They managed to save him, but just as they were pulling him to safety, along came a boy in the river, slamming against the boulders. Before they had finished pulling the boy out, two more people swept by—the hikers barely rescued them. Exhausted, they treated the victims. Then they heard another cry for help. One of the hikers said, “That’s it—I’m going upstream to investigate.” The others said, “You can’t! More people will need to be
The Public Health Emphasis on Prevention  (continued)

rescued and we can’t do it without you! If you leave, someone might drown.” The hiker replied, “I want to find out why they are falling in the river, so we can find a way to stop it.”

OPTION Instead of reading the story yourself, you can ask for a volunteer who has a textbook to read the story.

Facilitate discussion among learners by asking questions such as these:

⦁ What might it be like to be standing downstream trying to rescue people from drowning?
⦁ Have you ever been in this kind of a situation, either as a CHW or in your personal life?
⦁ What is the value of trying to address this problem further upstream?
⦁ How does this story relate to the field of public health?
⦁ How does this story relate to your work as CHWs?

Next, explain that health and public health interventions or services designed to prevent disease, disability, or death can be implemented at different levels: upstream, downstream, and midstream (or in the middle). These are often called primary (upstream), secondary (midstream), and tertiary (downstream) prevention. Write those words next to the corresponding section of the river. Ask learners for examples of interventions that might occur at each of the three points to help prevent the problem of people falling in the river and drowning.

Examples might be setting up a rescue station at the bottom of the river (tertiary), putting up nets to catch people who have fallen in (secondary), or building a fence around the river (primary).

3 Youth Gun Violence: Large Group Discussion

Explain to learners that they will use the concept of different levels of prevention to analyze the issue of gun violence (or another issue, as you wish). Distribute the handout on gun violence among children and young people, and provide learners with a few minutes to read it through.

OPTION Gun violence is not simply an issue that can be summed up in one page of data. It may affect learners in a personal way. Allow time for discussion of any current events, such as police violence against young Black men, or recent deaths in local communities. If desired, use one of these events for brainstorming upstream and downstream solutions.

Facilitate a discussion about the data on the handout that might guide potential interventions by asking questions such as these:

⦁ Did anything surprise you about the data?
The Public Health Emphasis on Prevention  (continued)

- Is the death of youth the only important issue related to the topic of gun violence? What other issues are also important?
  Some answers might include disability, witnessing gun violence, access to guns in the home, and post-traumatic stress.
- Are there any population-based differences in these data?
  - Geographic: Youth in the US are more affected by gun violence than youth in other countries. Rural youth die from gun violence for different reasons than urban youth.
  - Demographic: African American and Latino youth are more likely to experience gun violence than White youth.
- What’s missing from the data?
  This may include, for example, data on who is killing young people (other young people or adults?), data on gun violence from police officers, or data on where gun violence takes place (in the home, at school, on the street?).
- What do you think of the sources for this data?
  You may wish to note that the data came from organizations such as the Brady Campaign and Children’s Defense Fund, groups who advocate to reduce or eliminate gun violence.
- Where else might you find data on gun violence?

4 The Levels of Prevention: Large Group Discussion

Explain to learners that their task is to brainstorm potential interventions that address youth gun violence at each of the three levels. Label three columns on the board “Primary Prevention,” “Secondary Prevention,” and “Tertiary Prevention.” Facilitate discussion by asking the following questions:

- What are examples of primary prevention actions or policies that could be taken to prevent gun violence among children and young people?
  These may include, for example, policies that ban or prohibit or limit gun sales and ownership; community programs for turning in guns; public education about the risk of gun violence; suicide prevention and quality mental health care for youth; and so on.
- What are some examples of actions that represent secondary prevention of gun violence?
  These include, for example, increasing the penalties for gun violence; educating families on proper storage and security for guns in the home; training on gun safety for youth who live with guns at home; promoting the use of less lethal guns and ammunition; improved health and emergency department treatment for gunshot victims;
The Public Health Emphasis on Prevention *(continued)*

- What are some examples of actions that represent tertiary prevention of gun violence? These include, for example, improved physical rehabilitation programs for people traumatized and disabled by gun violence; community meetings (including art projects) to honor youth who have died by gun violence; grief counseling for friends, family, and schoolmates of youth who have been killed; public awareness campaigns such as memorials where youth were killed; and so on.

**TIP** Learners may have different opinions about where these answers fit. Many could be placed in two different places (primary and secondary prevention, or secondary and tertiary prevention). Allow learners to discuss why they think an answer fits at a certain level, but remind them that often there is not a clear answer, and differing opinions are fine.

- Which of these interventions do you think would be the easiest to implement? You may wish to remind learners that the best solutions are ones that the community believes in and wants.
- Which would be the most expensive? The least expensive?
- Which would have the greatest impact in terms of promoting public health and safety?
- Which do you think would be the most appealing to communities that are experiencing gun violence?
- As a CHW, what might be your role in any of these interventions?

Finally, facilitate conversation among learners about other examples of primary, secondary, or tertiary prevention efforts or programs by asking questions such as these:

- Can you think of other examples of primary prevention programs that seek to prevent other health problems or diseases? HIV prevention programs including syringe exchange programs and interventions that prevent the transmission of HIV from mother to child are examples of primary prevention efforts.

- Can you identify other examples of secondary prevention programs? What about programs that you, your family, or your community participate in? For example, programs that help people who are living with diabetes or schizophrenia to self-manage their chronic health condition.

- Can you identify other examples of tertiary prevention programs? For example, programs that help people living with cancer manage their pain, prolong their lives, or die at home or in greater comfort.
The Public Health Emphasis on Prevention  (continued)

5 Reinforcement

This is an opportunity to reinforce messages about public health learned from this training, the textbook, and other sources. You may wish to emphasize key ideas such as the following:

⦁ Public health is about prevention. The earlier we can prevent an illness or injury from happening, the better. When you can prevent even a small percent of cases across a large population, you can save a lot of people’s lives. Prevention work is often less visible than treatment or emergency services—but it’s just as important.

⦁ Although public health efforts use all three kinds of prevention, primary prevention is usually considered the gold standard. Primary prevention efforts often address the whole population and they aim to eliminate the causes of a health problem before it starts.

⦁ Many public health efforts use secondary prevention to screen for or detect a health issue just as it is starting to form, to prescribe initial treatments, or to address populations at high-risk of the health issue with targeted interventions.

⦁ Tertiary prevention overlaps into the realm of medicine and treatment of health problems, and they can prevent death, disability, or reoccurrence of the health issue. Primary prevention is more upstream while tertiary prevention is more downstream.

⦁ CHWs work with programs and interventions at all levels of prevention.
Learner Handout 3.4 A: Youth Gun Violence Facts

Statistics

- Every day in the US an average of 8 children and teens under the age of 20 are killed by guns.
- In 2010, 2,694 youth were killed by guns, and 15,576 were injured by guns.
- Rural youth die more often of gun suicides and unintentional shooting. Urban youth die more often of gun homicides.

Disparities

- Gun violence is the second-leading cause of death (after motor vehicle crashes) for young people in the US, and the leading cause of death for African American young people.
- In 2010, African American youth were 5 times more likely and Latino youth 3 times more likely to be killed by guns than White youth.
- American children die by guns 17 times as often as children in 25 other high-income countries.

Other Issues

- More than one in five US teenagers (ages 14 to 17) report having witnessed a shooting.
- A gun in the home does not make a family safer. It increases the risk of homicide by 200 percent, suicide by 200–400 percent and accidental death by 300 percent.

REFERENCES


We have included an assessment that covers important skills for this chapter. There is not an assessment for every activity or for every learning outcome in this chapter. We encourage you to adapt this or add any other assessments from your own resources.

**ASSESSMENT 3.1: Public Health Quiz**

- This is a six-question quiz.
Assessment 3.1

Public Health Quiz

Your Name: ____________________________________________________________

Date: ____________________________

Please answer the following questions to the best of your ability.

1. Please note whether the following examples represent an upstream or a downstream intervention.

<table>
<thead>
<tr>
<th>Example</th>
<th>Upstream</th>
<th>Downstream</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removing a skin cancer tumor before the cancer grows or spreads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mandating that apartment buildings have baby-proof window guards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Putting warning signs on cigarette packs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing free or low-cost hypertension medications</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Which of the following are social determinants of health that can affect whether someone has diabetes? (Please choose all that apply.)
   A. Living in a food desert without access to healthy food such as fruits and vegetables
   B. Having a parent or sibling with diabetes (genetic factors)
   C. Not having access to a kitchen (living in a shelter or residential hotel)
   D. Eating too much sugar
   E. Living in neighborhoods with no parks, playgrounds, or areas to exercise

3. Which of the following are key concepts of public health? (Please choose all that apply.)
   A. Public health is science based.
   B. Public health is concerned about health inequalities.
   C. Public health focuses on prevention.
   D. Public health focuses on getting patients to accept responsibility for their poor health choices.
   E. Public health focuses on populations.
Public Health Quiz (continued)

4. Please determine whether the following activities are medical or public health interventions.

<table>
<thead>
<tr>
<th>Activity</th>
<th>MEDICAL</th>
<th>PUBLIC HEALTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Using an asthma inhaler</td>
<td></td>
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</tr>
<tr>
<td>B. Increasing access to fruits and vegetables in a community</td>
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<td></td>
</tr>
<tr>
<td>C. Providing syringe exchange programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Undergoing chemotherapy for cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Taking blood pressure medication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Prohibiting cigarette sales to minors</td>
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<td></td>
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5. A nonprofit organization wants to fight cancer by getting people to eat more fresh fruits and vegetables. Their first project is to “green the corner stores” by helping neighborhood merchants (like liquor stores) offer bananas, apples, tomatoes, avocados, and other produce. This action is an example that fits best on which level of the ecological model? (Please choose one.)

A. Societal level
B. Community level
C. Family and friends level
D. Individual level
E. None of the above

6. Which of the following are roles that CHWs can play within the spectrum of prevention? (Please choose all that apply.)

A. Working with local youth networks and leaders to advocate to eliminate tobacco advertising to youth
B. Providing client-centered education and counseling on how to prevent HIV and other sexually transmitted infections
C. Attending a protest against police violence
D. Facilitating staff trainings at agencies on working with people recently released from prison
E. All of the above
Public Health Quiz (continued)

ASSessment 3.1: Quiz Answer Key

1. Please note whether the following examples represent an upstream or a downstream intervention.

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C. Not having access to a kitchen (living in a shelter or residential hotel)
D. Eating too much sugar
E. Living in neighborhoods with no parks, playgrounds, or areas to exercise

A, C, and E only.

3. Which of the following are key concepts of public health? (Please choose all that apply.)

A. Public health is science based.
B. Public health is concerned about health inequalities.
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A, B, C, and E.
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A. Societal level
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C. Family and friends level
D. Individual level
E. None of the above

B.
Public Health Quiz (continued)

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B. Providing client-centered education and counseling on how to prevent HIV and other sexually transmitted infections
C. Attending a protest against police violence
D. Facilitating staff trainings at agencies on working with people recently released from prison
E. All of the above

E.