

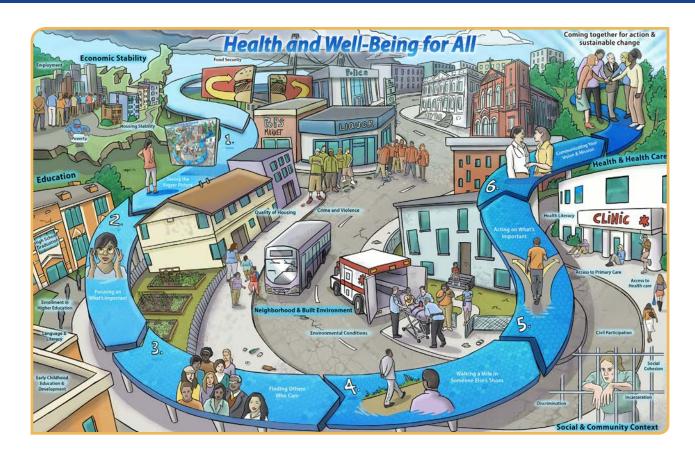
These materials are based on a multidisciplinary workshop developed for *The CDC Experience* Applied Epidemiology Fellowship, a one-year training program for medical students offered during 2004-2014. They have been adapted, with new content for broader use, by:

Denise Koo, MD, MPH, Fellowship Program Director and former Director of CDC's Division of Scientific Education and Professional Development

Virginia Watson, MA, Fellowship Program Coordinator and Instructional Systems Designer

Health and Well-Being for All website: www.cdcfoundation.org/health-in-a-box

Introduction (<10 minutes)



This is a small group learning discussion that will explore many of the factors that can impact health. This module uses obesity as an example, but you could use the systematic process presented here to develop a variety of population-based approaches for improving other health outcomes.

Together we will discuss:

- The need for data, and especially the impact of local data
- Definitions and descriptions of social determinants of health
- How you can play a role in improving health by addressing social determinants with a population-based approach

Take turns reading this guide. Don't forget to include the headings and subheadings, as they help chart the path we're following. When you see a red dot (●), this indicates a stop – to talk, discuss or complete an activity. Feel free to skip questions if your group has already addressed them during your discussions.

Take a moment to make a round of introductions, and share anything about yourself that is relevant to your interest in today's learning experience. ■

Before we begin, let's take a look at the visual. Have everyone stand up to observe the visual. Go around the table and have everyone describe what they see.

Discuss things that affect health that you can't see in this picture (e.g., mental health, health literacy).

Definitions (<10 minutes)

Let's begin by discussing different ways to describe and define social determinants of health.
 Have five people choose one each of the *Definitions and Descriptions of Social Determinants* of *Health cards* from the card deck. Each person should read the card aloud.



- 2. Which definition or description resonated the most with you? Why?
- 3. Did the same definition or description resonate for everyone? Why or why not?
- 4. Can you think of an example of a personal, social, economic or environmental factor that has impacted a patient/client or family member of yours recently? Go around the table and have everyone share an example.

5. Look at the scenario below (and continued on following page). Choose three people to read the roles of the narrator, Dr. Sylvia Peterson and her patient, Carmen Sanchez. Keep this story in mind, as we'll reference it throughout the experience today as an example of a health outcome impacted by social determinants.

Obesity Story: Neighborhood in Peril

NARRATOR: Sylvia Peterson is a young health care provider with Bennington-Chatsworth Family Medicine. She recently began working two days a week at its Women and Children's Program, housed in a newly reopened clinic downtown. The clinic service area includes

neighborhoods of high crime and unemployment. And it seems to Sylvia as though every other patient has diabetes or prediabetes, and most have overweight or obesity,

especially the children.

The day Sylvia first met Carmen Sanchez began like any other. Picture the scene: the waiting room is filled to capacity. Some women are reading, some are watching the closed circuit TV, some are tending to babies and toddlers, often placating them with candy, chips and juice drinks from the clinic's vending machine.

As she did each time she worked a shift at the clinic, Sylvia thought: "How can a place designed to help people get healthy have a vending machine in the waiting room with all those candy bars and chips?!"

Carmen was the last patient of what had been an exhausting and frustrating day. As she entered the exam room, Sylvia saw that Carmen was reading to her young son, José. He was dripping purple juice drink on the book's pages from his sippy cup.

SYLVIA: Hola, Señora Sanchez, I'm Dr. Peterson. Cómo está? What brings you in today?

CARMEN: Hola, doctor. I want to talk to you about some pills to help me lose weight. I heard about them from my friend, Maria. I just can't seem to lose all this weight I gained from being pregnant.

SYLVIA: Well, Señora Sanchez, you know eating healthier and moving more are better ways to lose weight than pills, right?

CARMEN: (not really listening) Maria has diabetes and so do I. She got those pills from her doctor. And you don't have to call me Señora ... I'm not married anymore. Call me Carmen.

SYLVIA: Oh, okay. You know, Carmen, healthy eating and active living are even more important if you have diabetes. Are you taking care of yourself by doing that?

CARMEN: There is just too much to do, I have no time for all that! I have three children to take care of and two jobs ...

SYLVIA: How long have you had diabetes?

CARMEN: The doctor told me about it when I was pregnant. He said I had a little sugar in my urine. I wasn't surprised because my mother and grandmother and two of my uncles have diabetes. But it's been three years and I feel okay. I don't have to give myself shots or take medicine.

SYLVIA: [a bit alarmed] Carmen, I'd like to test your blood. It's possible that you had "gestational"

diabetes," which can happen when you're pregnant. It doesn't mean you would have diabetes now, but you might. I'd also like to do a check-up on José ... how much did he

weigh when he was born?

CARMEN: He was a whopper, doctor! Such a big, strong boy at almost 10 pounds!

SYLVIA: Well, let's look at his weight now ... you say he's three years old?

NARRATOR: Sylvia then looks at Jose's chart and discovers that he weighs 42 pounds, is 39 inches

tall, with a BMI of 19.4 (>95th percentile for age and sex), which puts him in the obese category for his age. Sylvia showed Carmen the BMI-for-age growth chart and tried to

explain that her son was at an unhealthy weight.

CARMEN: Well, surely he'll grow out of it, won't he? Aren't a lot kids round like this until they grow? My

older kids are also pretty stocky ... I figured they would thin out when they hit a growth spurt.

NARRATOR: Sylvia explained that the children would be at greater risk for health complications if they continued to have overweight or obesity ... conditions like asthma, high blood

pressure and joint problems, in addition to depression and possible behavioral issues. For the rest of Carmen's visit, they talked about what she fed her children and ways they were physically active. Carmen said that she got free juice "from the government" and assumed this was the healthiest thing to serve as a beverage, but added that her oldest daughter liked to drink soda. And, although she knew she could use her food stamps to

buy healthy foods, the most convenient place for her to shop was Pop's Market, and the only "healthy" food they have there are bruised apples and over-ripe bananas for twice

as much as a pack of cookies.

CARMEN: No worries, though! My second job is with a caterer. There's always food left over and they let me bring it home. This is such a life-saver! There's just never enough time to

cook meals like mi madre and mi abuela did when I was young. And, don't even get me started about exercise! Maybe you haven't been around the block, but it's not safe for the kids to be outside! Sometimes, when I have a day off, we take the bus uptown and go to

a park there, but around here, the parks are a mess.

NARRATOR: Sylvia asked Carmen for more details and learned that the local park had broken swings

and rusted slides, and often empty liquor bottles and used drug needles littered the

ground. Sylvia was surprised at first, then angry.

CARMEN: Ah, doctor, I can see you're one of those that really care ... you've got your work cut out

for you around here! This whole neighborhood's in the same boat as me!

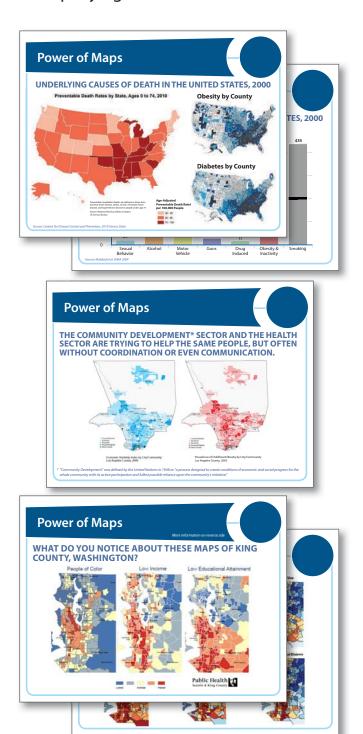
NARRATOR: Yes, thought Sylvia, the same boat at the bottom of a waterfall, being deluged with more

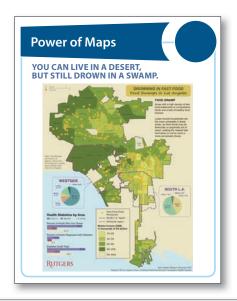
than they can handle. She decided right then and there to go upstream and do something

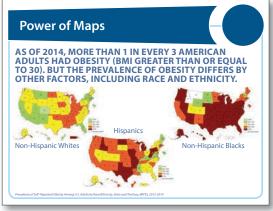
- even one small thing - to help tackle the problem of obesity in this community.

Visualizing the Social Determinants of Health (15-20 minutes)

6. Let's take a look at some interesting maps showing data about obesity. Your facilitator will hand out the *Power of Maps cards*. Each person should read the card aloud and explain the accompanying visuals.









- 7. Does any of this information surprise you? Why or why not?
- 8. Why is it important to be aware of this information?

Step 1: Seeing the Bigger Picture (5-10 minutes)

Begin to see the interrelationships among parts of a whole ...

Change Process

9. We'll begin our journey through the change process by following the six steps represented on the visual. It's important to consider your role in leading a change effort as we learn about each step. All of us need to be able to take a leadership role to drive change if we want to make an impact.



- 10. Locate Carmen on the visual, getting off the bus with her son in front of the community garden. As a group, discuss examples of issues that Carmen and her family might experience on a day-to-day basis. Think again about the information presented on *The Power of Maps cards* and the visual, and consider:
 - Personal factors
 - Social factors
 - Economic factors
 - Environmental factors
- 11. Why do these factors impact the whole community?
- 12. Are the outcomes of these factors preventable? Why or why not? •

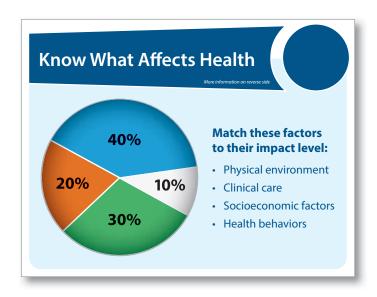
Step 2: Focusing on What's Important (5-10 minutes)

Determine and communicate the magnitude of the problem ...

- 13. Think again about the *Obesity Story* with Carmen and her children. How would most doctors respond to Carmen's request for weight loss drugs and her desire to lose weight?
- 14. Do you think the typical medical approach will be successful? Why or why not? ■



15. Now get the *Know What Affects Health card* from your facilitator. Have someone in your group read the categories of modifiable* risk factors listed on the right. Then guess the impact of each of these categories on health by matching them with a given percentage (10%, 20%, 30% or 40%). You'll see the correct answers on the reverse of the card. ■



- 16. How do each of the modifiable* factors that affect health impact your ability to improve the health of your patients? •
- 17. You, like Dr. Peterson, have decided that you would like to DO something about the larger problem of obesity. In this phase of your path toward change, you need to describe the problem in your community. Think again about the types of data provided on *The Power of Maps cards*. What are some important pieces of information/data you should consider?
- 18. Where might you find this information/data?
- 19. Now that you've got the data, you're ready to motivate others to help you. As a group, discuss why it's important to have a community/region-wide agreement that the issue needs to be addressed and changes made.
- * Recall that risk factors are conditions that increase your risk of developing a disease. They are either modifiable, meaning measures can be taken to change them (e.g., diet, job, home), or non-modifiable, meaning they cannot be changed (e.g., genetics).

Step 3: Finding Others Who Care (5-10 minutes)

Harness the power of champions and recognize impacted groups,

organizations and settings ...

- 20. As you consider the data/information you identified in Step 2, discuss who else would be invested enough to make a difference that would benefit a larger population. Brainstorm a list of possible stakeholders.
- 21. Now have someone choose the *Collaborate with Others card* from the card deck and describe it to the group. Are there any stakeholders listed here that you didn't consider in your brainstorm? Might they be relevant to this situation? •





- 22. Is it possible that there will be some reluctant participants? If so, why?
- 23. How might you use the data you identified in Step 2 to transition them from reluctant to supportive or willing participants? •

Brainstorm Stakeholders List			

Step 4: Walking a Mile in Someone Else's Shoes (20-30 min)

Empower a coalition of the willing ...

- 24. When we left the *Obesity Story*, Dr. Peterson's conversation with Carmen Sanchez had prompted her to go beyond the walls of her clinic to find some upstream solutions to the community's problem with obesity. Since then, she has:
 - Identified local data and information about the issue
 - Learned a lot about which interventions might work and which ones probably wouldn't, for a variety of reasons
 - Forged relationships with a variety of community stakeholders



Stakeholder Analysis: Your facilitator will give each person an individual **Character Sketch** and share the **Others Who Care Summary chart**. Take some time to read your own sketch. Together, review the profiles, hopes, obstacles and resources of this stakeholder group using the summary chart. Each person should feel free to share extra details from their own character sketch.





Next, consider and then discuss the following questions:

- 1. What are the strengths of each stakeholder, including Dr. Peterson and Carmen, and what can they offer to a collaborative effort? ■
- 2. What points of agreement might this stakeholder group have if they decided to work together? (Make sure you can answer this before moving to Step 5).
- 3. What sources of conflict might they have?
- 4. What obstacles might they need to overcome before they could work together on a solution to the community's problem with obesity?
- 25. Now get the *The 3 C's card* from the card deck and have someone read it aloud. As a group, discuss why the 3 C's will be critical for the alignment of the stakeholders represented in the stakeholder analysis.

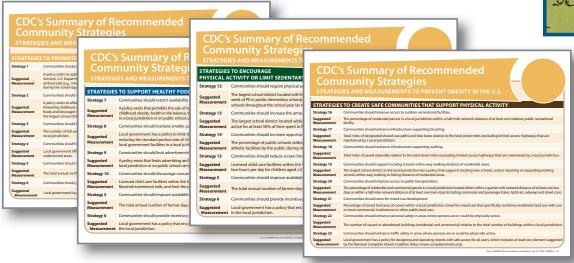


Step 5: Acting on What's Important (<15 minutes)

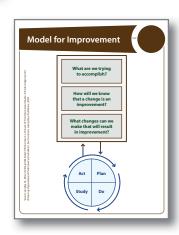
Develop and document a future vision that's desired and then implement your plan ...

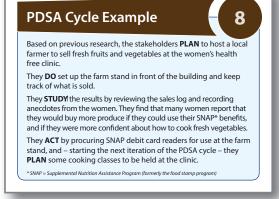
26. Given the points of agreement among the stakeholders from Step 4, choose an action this group would like to pursue together. ■
If you need ideas, get the *CDC's Summary of Recommended Community Strategies cards* from your facilitator.





- 27. Get the *Model for Improvement card* from your facilitator and have someone describe it. Discuss as a group the answers to the three questions on the card as you think about your vision and plan.
- 28. Now reference the Plan, Do, Study, Act graphic at the bottom of the *Model for Improvement card*. The Plan, Do, Study, Act (or PDSA) Cycle is shorthand for testing a change in the real world setting by planning it, trying it, observing the results and acting on what is learned.
- 29. Let's consider an example: Assume the stakeholders from Step 4 decided to form a community coalition. They want to focus on promoting the availability of affordable healthy food. Have someone select the *PDSA Cycle Example card* from the card deck and read it aloud.
- 30. Now come up with your own PDSA cycle based on your stakeholder analysis. Or, if your group prefers and/or you are short on time, choose instead to come up with the third iteration of the PDSA cycle about the availability of healthy food. ■





Step 6: Communicating Your Vision and Mission (<10 min)

Sell it, sell it, sell it ...

31. Now we have a sense for how to create a sustainable plan and continuously improve upon the process. To ensure the success of the initiative, we'll need to win people over and get the word out about the vision in multiple ways. Get the next four *Tactics for Communicating cards* from the card deck and read them aloud.



- 32. Considering the needs of your particular audience, choose one of the ideas listed on the *Tactics for Communicating cards* and apply it to the vision and mission related to the obesity example we've been discussing.
- 33. Why is it important to tailor your communication style, data and information for the particular person or group you're addressing?
- 34. Now get the *Barriers card* from the card deck and read it aloud. Discuss how effectively communicating your vision and mission could help you overcome barriers and set your group on course for sustainable change.



Coming Together (10-15 minutes)

- 35. As we come to the end of our change process path, reference the group of people at the top right of the visual and read aloud the statement found there. Reflect on its meaning as it relates to the obesity effort on which we've been focused. ■
- 36. Are your thoughts about "sustainable change" related to obesity any different as a result of today's group discussion? If so, how? ■
- 37. Reflect on the six steps listed along the path of the visual. Take turns talking about the key take-aways that you've learned as a result of this experience. ■



38. Now that we've provided a process for exploring population-based approaches for improving health outcomes, get the *My Commitment card* from your facilitator. Capture the changes you can make in your work that will demonstrate your commitment to your community's health.

Post this in your work area for daily reference.



39. Is anyone willing to share with the group what they wrote on their commitment card?

Notes

