



ACTIVITY 9

Community Health Solutions

DATA ANALYSIS



A dusty construction site



9: COMMUNITY HEALTH SOLUTIONS

GUIDING QUESTION

How can communities evaluate science-based recommendations?

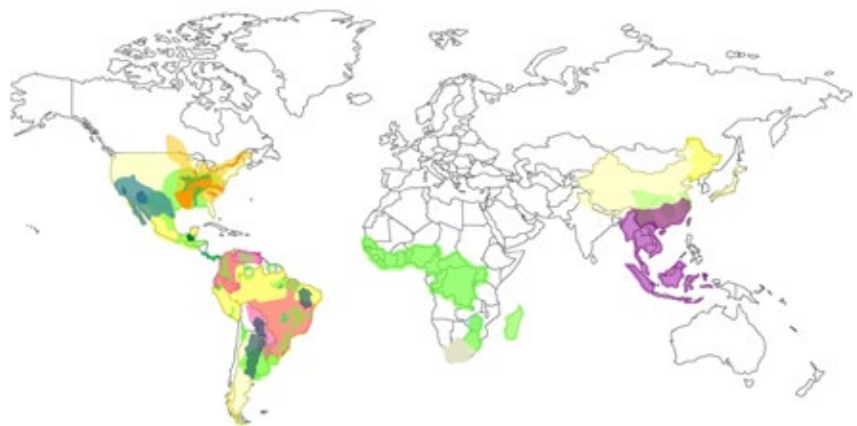
INTRODUCTION

Throughout this unit, you have learned many skills for evaluating different types of information that rely on slow thinking and an actively open mindset. Using these skills, you have investigated cognition and cognitive bias in personal health decisions and scientific investigations, including the fictional Southsand fever outbreak. In this activity, you will use what you have learned to evaluate proposed recommendations that could help Southsand reduce the number and severity of Southsand fever cases in the community.

FIGURE 9.1
Fungal Diseases Map

There are many fungal diseases around the world that affect millions of people each year.

- Blastomycosis
- Histoplasmosis
- Paracoccidioidomycosis
- Coccidioidomycosis
- Emmonsiosis
- Sporotrichosis
- Penicilliosis



CONCEPTUAL TOOLS



MATERIALS LIST

FOR EACH GROUP
OF STUDENTS

— SET OF 4
COMMUNITY MEMBER
COMMENT CARDS

— SET OF 8
HEALTH DEPARTMENT
EVIDENCE CARDS

FOR EACH GROUP
OF STUDENTS

— STUDENT SHEET 9.1
“Evaluating Community
Member Comments”

PROCEDURE

- 1 With your class, read the following fictional scenario.

The Southsand Health Department has released a set of recommendations to help residents reduce their risk of exposure and severe illness from Southsand fever. The city has set aside special funding to implement the various recommendations. The goal is to reduce the number of Southsand fever cases, health complications, and deaths in the community. City leaders are gathering feedback from the community before deciding which recommendation(s) to prioritize.

- 2 Read the following recommendations from the Southsand Health Department.

FIGURE 9.2

Recommendations for Reducing Risks from Southsand Fever

**SOUTHSAND HEALTH DEPARTMENT**

Recommendations for Reducing Risks from Southsand Fever



DIAGNOSTIC TESTING

Funding for medical providers to use a newly developed diagnostic blood test to quickly and accurately diagnose Southsand fever. This helps prevent unnecessary treatments and prolonged illness that could lead to long-term care or death.



PUBLIC EDUCATION

A public health campaign to educate community members about the symptoms of Southsand fever and the outdoor exposures that put people at risk of contracting Southsand fever. The campaign will encourage residents to contact their doctor if they believe they have been exposed to the fungus or notice symptoms.



PROTECTIVE GEAR

Grants for companies and community organizations to buy and use devices that can successfully filter particles such as pollen, dust, and airborne microbes out of the air. This includes:

- protective gear (such as masks) to reduce breathing in the fungal pathogen when outdoors.
- high efficiency particulate air (HEPA) filters to reduce the number of fungal pathogens in indoor spaces.



SOIL STABILIZATION

Grants for companies and community organizations to reduce activities that disturb soil or produce dust, including money to:

- support soil wetting (for individual community members) to reduce the amount of airborne dust and particles.
- fund soil-stabilization projects such as planting ground-cover plants to retain soil and prevent airborne dust.
- buy advanced soil-wetting equipment and large-scale soil dust covers for companies.

- 3 Southsand community members have been commenting on the recommendations. Your teacher will hand out one set of Community Member Comment cards to your group. Each group member should get one card. Take turns reading the cards aloud and work together to identify:
 - the claim by the community member.
 - any potential cognitive shortcuts or cognitive biases in the community member's comment.
- 4 As a group, use what you shared to complete columns 2 and 3 of the table on Student Sheet 9.1, "Evaluating Community Member Comments." Do not complete the last two columns at this time.
- 5 The Southsand Health Department has worked with the local university to release data about Southsand fever. Your group will receive one set of Health Department Evidence cards.
 - a Divide up the evidence cards among group members.
 - b Read and analyze the data found on your cards.
- 6 Take turns briefly describing your evidence cards to the rest of your group. As a group, use slow thinking to determine whether any of the data can be used as evidence that supports or helps refute each community member's claim. Record all ideas in the last two columns on Student Sheet 9.1.
- 7 As an individual, review each community member's comment and the evidence related to that member's claim. Decide if you agree or disagree with the claim made for each community member and circle "agree" or "disagree" in the box under the community member's name.
- 8 In your group, share why you agree or disagree with each community member's comments, the evidence that supports your positions, and your reasoning. Record any additional notes for each community member in the "agree" or "disagree" row.
- 9 Now that your group has looked at the evidence and some arguments for each of the recommendations, discuss with your group what you believe is
 - the most effective solution to reduce the number and severity of Southsand fever cases.
 - the priority for funding.
- 10 With your class, use a Walking Debate to show which recommendation you believe should have funding priority for Southsand City.

BUILD UNDERSTANDING

- ① Which recommendation do you think is the highest funding priority for helping Southsand City reduce risks from Southsand fever? Develop an argument supported by evidence from the Health Department Evidence cards and the Community Member Comment cards. In your response:
 - a make a claim about which recommendation best reduces the risk from Southsand fever.
 - b support your claim, using at least 3 pieces of evidence from the activity, and use reasoning to explain how each piece of evidence supports your claim.
 - c describe and explain at least 1 piece of evidence against your claim or that supports an alternate claim. Use reasoning to explain why you still support your claim as the strongest.
- ② Consider your response to Build Understanding item 1 and then describe
 - a any of your own cognitive biases or cognitive shortcuts that may have affected your thinking.
 - b at least one trade-off for the solution you have chosen.

CONNECTIONS TO EVERYDAY LIFE

- ③ Provide an everyday example of how online comments that include cognitive biases, cognitive shortcuts, and limited evidence can still be persuasive to a reader.

EXTENSION

Think about a disease or a health or safety problem in your community. Investigate what actions have been taken to help the situation and the evidence on which those actions were based.



A volunteer leads students in an AIDS awareness exercise during a development fair for youth in Santo Domingo, Dominican Republic.