

Community Health Workers: Moving Research Forward

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Community Health Workers: Moving Research Forward

Facilitator Notes

The purpose of this training is to support Community Health Workers in understanding major themes and concepts of scientific research as well as expanding their relationship to research. Ideally, this training will open the doors to opportunities to engage in research and potentially be a part of a research team, acting as a bridge between the university and the community.

Sensitive Topics

This training covers sensitive topics such as systemic racism and oppression, gender bias, and other topics that may be triggering for individuals. Gently remind participants that you will be engaging in a lot of difficult topics, and they should take care of their needs throughout the training.

Historically, there have been atrocities committed in the name of research, and it is important to acknowledge these truths and validate participant concerns.

Teaching Theories

If you are new to presenting or teaching, there are many theories about how to best teach adults. Here are a few key principles from two well-known advocates:

Andragogy - Malcolm Knowles

Important Principles:

- Adults like to know why they are learning something
- Adults do best when information is made relevant to them
- Adults are often motivated by their own internal goals
- Adults like to apply what they've learned

Popular Education and Critical Pedagogy - Paulo Freire

Important Principles

- Learning should be a transformative experience
- Teaching is not neutral (In other words, is the status quo being challenged or upheld?)

The participants in your workshop bring a life filled with learning to the conversation. Be sure to use this important resource in your class.

Presentation Tips

Your training participants may have had various experiences in school settings. Here are a few reminders to help put them at ease and have an engaging workshop:

Starting on a Strong Note

- Choose a comfortable space for the presentation
 - Be positive and engaging
 - Learn people's names and pronouns
 - Let people know where the restrooms are located
 - Review the agenda for the session so participants know what to expect and when there will be breaks
 - Make a plan if people need to take phone calls or texts (Should they go in the hall?)

Teaching

Reflect on information in different ways to create an environment that gives them varied learning opportunities (reading, writing, conversation, movement, etc.)

Ask open-ended questions

- *Do you have questions?* will often be met with agreement, even if that is not the case. Consider questions like:

What do you think about _____?

Have you seen or experienced anything similar?

Tell me what was most interesting to you about this part.

What questions do you have?

Write down one question you still have.

- Be sure to give time to think about answers or ask the question in another way

Use new vocabulary in a variety of ways

- Repeat new words in many contexts
- Give relatable examples or analogies
- Build up to asking them questions using the new words and eventually encouraging them to use the words themselves
- Create a word wall to visualize important words

Logistics

Make sure copies are crisp and printed from originals

Observe the energy in the room and take breaks as needed

Change up who works together or where they work in the space throughout the day to invigorate the group

Remember, the slide deck supplements the interactions and learning that goes on face to face. They are not meant to be read but used to reinforce ideas, provide imagery, clarify concepts, etc.

Project Outcomes

The table below includes a list of intended outcomes for the workshop. Familiarize yourself with the key takeaways.

Introduction

Facilitator will:

- Create a welcoming space
- Encourage participants to take care of themselves talking about difficult topics
- Highlight the range of roles students in the cohort have
- Provide icebreakers as needed during new days of training or after breaks

Theme	Outcomes	Tools to Demonstrate Understanding
Community Health Workers: Moving Research Forward	<i>By the end of this section participants can:</i> Identify at least two reasons why CHWs are essential stakeholders in the research process	Group/Pair Discussions
Communities and Health	<i>By the end of this section participants can:</i> Identify at least two examples of social determinants of health Identify examples of health disparities Give an example of a health inequality Explain why it is important for people from different groups to take part in research	<ul style="list-style-type: none"> ● Activity/Handout: Anthony and Michael: Case Study 1 and 2 ● Activity/Handout: Social Determinants of Health Chart Group/Pair Discussions
Science	<i>By the end of this section participants can:</i> Define science Describe how science affects a person's everyday life Define different kinds of variables in an experiment Communicate important ideas about variables	Group/Pair Discussions Activity/Handout How Research Works (Penny Experiment)
Scientific Research	<i>By the end of this section participants can:</i> Identify the key steps of research Describe the difference between qualitative and quantitative research Identify the different reasons a person is included or is not included	Group/Pair Discussions <ul style="list-style-type: none"> ● Activity/Handout: Qualitative and Quantitative Research ● Activity/Handout:

	<ul style="list-style-type: none"> in a study ● Explain the placebo effect Compare or contrast longitudinal and cross-sectional studies Categorize different types of studies (single blind, double blind, etc.) Explain different types of research measurements Describe how human tissue or information is stored over a long time 	<p>Tools for Measurement</p> <ul style="list-style-type: none"> ● Activity/Handout: Talking About Research
Participant Rights	<p><i>By the end of this section participants can:</i></p> <ul style="list-style-type: none"> ● Explain how the IRB protects research participants 	<ul style="list-style-type: none"> ● Group/Pair Discussions ● Handout/Activity: The Chewing Gum Study
Research and the Community	<p><i>By the end of this section participants can:</i></p> <ul style="list-style-type: none"> ● Describe ways to keep people involved in research over a long time ● Talk about common concerns or questions people have about taking part in a research study ● Explain at least one reason why it is important to create a feedback loop to the community about research ● Apply training lessons to a final culminating project 	<ul style="list-style-type: none"> ● Activity/Handout: Getting the Right Participants ● ● Activity/Activity: Poster Review ● Activity/Handout: Getting All the Facts ● Group/Pair Discussions

Things you will need:

- Color markers for participants
- Experiment items
 - Pennies
 - Vinegar
 - Soap
 - Cups
 - Water
 - Lemon Juice
 - Other liquids with cleaning properties
- Large sticky chart paper
- Chart paper markers
- Post-It notes
- Dry erase markers
- Handouts and activity cards
- Flashcards/index cards
- Access to Internet and Audio
- Word Wall

Handouts

- ❖ Social Determinants of Health Chart
- ❖ Michael and Anthony: Case Study I
- ❖ Michael and Anthony Case Study II
- ❖ How Research Works
- ❖ Quantitative and Qualitative Research (Cut up into cards)
- ❖ Thinking About Measurement (Cut up into cards)
- ❖ Talking About Research
- ❖ The Chewing Gum Study
- ❖ Getting the Right Participants
- ❖ Research Poster
- ❖ Getting All the Facts (optional)
- ❖ Cheat Sheet (Review)

Icebreakers (if needed)

-**Two Truths and a Lie** - Students each tell true facts and one lie about themselves. The group tries to guess the lie.

- **Communicating Without Words** - Without talking have students line up in order by one of the following: (birthday, what time they went to bed, how far away they were born from where the training is being held, etc.)

- **Information Gaps** - Have students partner up. Give a line drawing of an everyday object to one student in each pair. Have the student with the drawing explain what to draw to the other student. The student drawing cannot ask questions at first.

(Option: Allow the person drawing to ask yes/no questions after 1-2 minutes have passed. You can also allow the people holding the original drawing to be able to look at their partner's picture as they are drawing it as a final build up.) *How is it difficult to explain something when the other person doesn't have the same information as you*


Outline of Presentation Content

Part I. Introduction (~20-30 minutes)		
~ Time Needed	Lesson Plan	Slides/Handouts
~5 minutes	Welcome participants <ol style="list-style-type: none"> Go over any logistics participants need to know (restrooms, where to make a call, get water, etc.) Talk about the plan for the session (how long it will be, when breaks will be, etc.) Transition Suggestion: <i>There is a lot to cover in this training, but let's start by learning about what brings everyone here. Then we'll talk about what we are going to cover...</i> 	<u>Slides</u> : 1-2 <u>Handouts</u> : NA
~15-20 minutes	Who is here today? PAIRWORK: DISCUSSION <ol style="list-style-type: none"> In pairs (or trios), direct participants to talk with their neighbor(s): <ol style="list-style-type: none"> <i>Where do you work? What kind of work do you do? What do you like about your job?</i> After a few minutes, bring the group back together. Have everyone briefly introduce themselves and say one thing they like about their work. Facilitator take notes about their reasons on wall sticky note <ol style="list-style-type: none"> Possible answers: <i>Helping community members, being able to explain complex ideas to people, acting as an advocate, helping people navigate systems, etc.</i> Hang up in space as a reminder of the important work CHWs do 	<u>Slides</u> : 3 <u>Handouts</u> : NA

Part II. Community Health Workers: Moving Research Forward (~20-30 minutes)

~ Time Needed	Lesson Plan	Slides/Handouts
~5 minutes	Why Are We Here Today? <ol style="list-style-type: none"> 1. Review the agenda and purpose of training: <ol style="list-style-type: none"> a. Explain that the group is going to talk about many topics related to science and research b. Explain that while this information is interesting and helpful, there are bigger goals, too, for this training in addition to learning facts and new vocabulary (although that's important!) c. Explain that CHWs can play a valuable role in research (just like any research team member) d. Explain that this has not been how research has been traditionally done e. Explain that you can change systems to better serve your communities by participating in research 	<u>Slides</u> 4-5 <u>Handouts</u> Agenda (Create and adapt to your own organization's needs) <u>Materials</u> NA
~10 minutes	What do we know about research? <ol style="list-style-type: none"> 1. Brainstorm a few examples with group about what they think of when they think of the word <i>research</i>. <ol style="list-style-type: none"> a. Possible ideas that might be brought up: <i>historic racism in research, science, something done in a laboratory, done by scientists, etc.</i> <ol style="list-style-type: none"> i. This will depend on background knowledge of group 2. 🖋 Have them write on post-its and place on the wall <ol style="list-style-type: none"> a. Add sticky notes to wall, start organizing them together if you recognize any common themes. b. Note any themes that emerge from the discussion and exercise c. If anyone has experience with research, see if anyone is willing to share about 	<u>Slides</u> 6 <u>Handouts</u> NA <u>Materials</u> Post-it notes

	<p>what they wrote down and why</p> <p>d. Discuss that they will be talking about scientific research today, which is how scientists study and learn new things in a formal way</p> <p>i. Mention that today will be focused on human research, not animal research —there are many other rules and regulations concerning animal research.</p>	
~5-10 minutes	<p>Why should CHWs learn about research?</p> <p>1. Ask the group why it is important for CHWs to be involved in research.</p> <p>a. Write their ideas or associations on the board.</p> <p>b. Add the following reasons if they are not brought up by the group:</p> <p>i. Become a stakeholder and voice in research</p> <p>ii. Give you vocabulary and background knowledge to talk comfortably about research and take part in research</p> <p>iii. Be on a research team at some point</p> <p>iv. Advocate for your patients and what they need</p> <p>c. Acknowledge the historic racism and sexism in research and the distrust it has created between the community and researchers. Let people know to practice self care, take a break, or do what they need to do if any of the topics are triggering for them.</p> <p>2. Review agenda again. This time reiterate that all of these topics that are going to be covered are to help CHWs empower themselves with knowledge. With this knowledge, they can raise up the voices of their communities and hopefully make changes in research that have a big impact!</p>	<p><u>Slides</u> 7-8</p> <p><u>Handouts</u> NA</p> <p><u>Materials</u> NA</p>

Part III. Communities and Health (~2 hours - 2.25 hours)		
~ Time	Lesson Plan	Slides/Handouts
	Introduction/Transition Example Transition: <i>Let's talk a bit more about our communities and why your participation in research is so important...</i>	<u>Slides</u> 9 <u>Handouts</u> NA <u>Materials</u> NA
~15-20 minutes	What affects our health? <ol style="list-style-type: none"> Ask participants about what type of things affect their health, using the images in Slide 11 <ol style="list-style-type: none"> Pass out HANDOUT: Social Determinants of Health Chart so students can follow along, Flip through the following slides and highlight questions that seem interesting to the participants related to each theme. <ol style="list-style-type: none"> Place Schools Food Jobs Health  PAIRWORK: HANDOUT Social Determinants of Health Chart. In pairs, have students ask 2-4 additional questions that explore what else they can think of that might affect one's health in these categories. <ol style="list-style-type: none"> Option 1: Discuss what they came up with. Option 2: Have each category on its own large sticky paper. Have each pair come up and write their questions and check out what other people wrote. Highlight a few of the questions that they added that are interesting or resonate with the group. 	<u>Slides</u> 10-16 <u>Handouts</u> Social Determinants of Health Chart <u>Materials</u> Large Sticky Note Paper
~10-15 minutes	Social Determinants of Health in Everyday Life	<u>Slides</u> 17-18

	<ol style="list-style-type: none"> 1. 🐦 PAIRWORK: Pass out HANDOUT: Michael and Anthony: Case Study Part I. In pairs, tell participants they are going to explore how people are affected by the things around them. <ol style="list-style-type: none"> a. With a neighbor, have participants review Michael and Anthony's stories. Tell them to identify 2-3 things that support good health habits. Once they have identified some healthy habits, decide if you see any factors that could affect the boys due to their environment or situation in any other ways. b. Share back with the larger group. Possible ideas: <ol style="list-style-type: none"> i. Michael <ol style="list-style-type: none"> 1. Eats fruits and vegetables, goes to the library 2. Lives in a part of the city with high asthma rate, parents are very busy ii. Anthony <ol style="list-style-type: none"> 1. Regular doctor visits, gets good amount of sleep 2. Spends a lot of time on ipad, eats a lot of fast food 2. Social determinants of health (<i>Add to Word Wall</i>) <ol style="list-style-type: none"> a. Review: <i>These things in our lives that can help or hurt our health are called social determinants of health.</i> b. <i>Let's look at an example...</i> 	<p><u>Handouts</u> Michael and Anthony: Case Study Part I.</p> <p><u>Materials</u> Wall Sticky Note for Word Wall</p>
~10-15 minutes	<p>Health disparities and Health Inequalities</p> <ol style="list-style-type: none"> 1. Group Discussion <ol style="list-style-type: none"> a. Have students look at: HANDOUT Michael and Anthony: A Case Study Part 2. Michael and Anthony are both in high school now. Ask: <i>How do the places where they live impact them?</i> <ol style="list-style-type: none"> i. Anthony goes to a school known for its technology and science programs. They have a tennis team. He's going to college. 	<p><u>Slides</u> 19-22</p> <p><u>Handouts</u> Michael and Anthony: A Case Study Part 2</p> <p><u>Materials</u> NA</p>

	<p>There is a variety of resources if he wants to stay after school for tutoring.</p> <ul style="list-style-type: none"> ii. Michael goes to a school near his house. He tries to come home right after school because there have been shootings recently. He plays on the basketball team but the team only has the gym a few hours a week to practice. He is trying to figure out how to pay for college, if he decides to go. <ul style="list-style-type: none"> b. Ask participants to identify the different experiences each of them had. Explore how much the environment affected each of them. c. Name these differences: health disparities (<i>Add to Word Wall</i>); A disparity is difference between groups of people that affect their health (often unfair!) <p>2. Ask the group to consider any other way how life might be different for the young people at Michael's school and Anthony's school. What might be the effects on them?</p> <ul style="list-style-type: none"> a. Name these differences in groups: <i>These health disparities lead to Health Inequalities (<i>Add to Word Wall</i>) among groups</i> <ul style="list-style-type: none"> i. Lack of Opportunities <ul style="list-style-type: none"> 1. Not wanting to be outside 2. Consequences of staying indoors ii. Violent neighborhood <ul style="list-style-type: none"> 1. Trauma and Stress iii. Access to getting around 	
~10 minutes	<p>Health Inequalities continued</p> <p>Tell the group you are going to look at another example of health inequalities on a bigger scale...</p> <ul style="list-style-type: none"> 1. Chad versus Sweden <ul style="list-style-type: none"> a. Show on map if unfamiliar <ul style="list-style-type: none"> i. Explain Chad is in Africa and Sweden is in Europe 	<p><u>Slides</u> 23</p> <p><u>Handouts</u> NA</p> <p><u>Materials</u> NA</p>

	<p>b. Point out lifetime mortality rates are quite different in these countries</p> <p>i. Draw stick figures on the board to demonstrate 1 out of 16 vs. 1 out of 10,000</p> <p>c. Reiterate this is an example of health inequalities. In other words, these two groups have very different situations due to social determinants of health that have lead to inequalities in their medical access.</p> <p>d. If needed, draw process chart on board:</p> <table><tr><td>Social Det. of Health</td><td>No water, no doctors nearby</td></tr><tr><td>Health Disparities</td><td>Moms get worse health care</td></tr><tr><td>Inequalities</td><td>More moms die in childbirth</td></tr></table>	Social Det. of Health	No water, no doctors nearby	Health Disparities	Moms get worse health care	Inequalities	More moms die in childbirth	
Social Det. of Health	No water, no doctors nearby							
Health Disparities	Moms get worse health care							
Inequalities	More moms die in childbirth							
~10-15 minutes	<p>(Optional, if you have time)</p> <p>What about the United States?</p> <p>If there is time, you could watch a brief video about maternal mortality in the United States. <i>You can substitute another video about health inequalities here if preferred:</i></p> <p>a. VIDEO: Maternal Mortality in United States</p> <p>b. https://www.cbsnews.com/news/maternal-mortality-an-american-crisis/</p> <p>Possible Questions:</p> <p><i>Why do you think the mortality rate for moms is so bad here in the United States?</i></p> <p><i>Why is it worse for some groups?</i></p> <p>○ <i>Why do we have these differences?</i></p>	<p><u>Slides</u></p> <p>24-25</p> <p><u>Handouts</u></p> <p>NA</p> <p><u>Materials</u></p> <p>Video (see link)</p>						
~10 minutes	<p>How do we decrease inequalities?</p> <p>1. Talk with the group about why It's very important to study people from different groups... These are important reasons why</p>	<p><u>Slides</u></p> <p>26-29</p> <p><u>Handouts</u></p>						

	<p>CHWs are so important in this process.(Be sure each point gets discussed:)</p> <ol style="list-style-type: none"> Better understanding of how health disparities affect people Researchers can find better ways to help people who might need different things <ol style="list-style-type: none"> Example - women might interact differently than a medicine than men. More people can be helped. We can improve life for groups of people that have been affected by these disparities <p>2. Who do researchers want to study? People who:</p> <ol style="list-style-type: none"> Live in different places Have different racial or gender identities Are different ages Have different diseases Speak different languages Went to different schools <p>3. What's the role of the CHWs?</p> <ol style="list-style-type: none"> Ask the group why it is important the CHWs are involved in research studies. Reiterate: <ol style="list-style-type: none"> If CHWs are part of the process , there will be more representation in research The community will have more voice 	<p>NA</p> <p><u>Materials</u> NA</p>
~15 minutes	<p>How long people live</p> <ol style="list-style-type: none"> Tell the group you are going to take a look at a big city... Talk about the life expectancy rate for the country (About 78 years old) Make a guess about <ol style="list-style-type: none"> Chicago's west side and downtown area Two neighborhoods: Streeterville, a downtown neighborhood, and Englewood, a neighborhood on Chicago's South side. Talk about the actual numbers. 	<p><u>Slides</u> 30-34</p> <p><u>Handouts</u> NA</p> <p><u>Materials</u> NA</p>

	<p>d. Brainstorm the social determinants of health that might contribute to this issue.</p> <p><i>Note to facilitator:</i> if the place where you are located as compelling data, you could swap out your own town's info here to make it more relatable:</p> <p>https://www.citylab.com/equity/2019/06/segregation-life-expectancy-study-research-racism-map/591028/</p>	
~5 minutes	<p>How do people feel about research?</p> <p>A. Review that you have all talked a lot about research today, but some people still aren't interested in participating.</p> <p>B. Ask reasons why people might not want to participate? Make sure these responses get mentioned:</p> <ol style="list-style-type: none"> They might not trust doctors or hospitals They don't know how to find out about research It's not always easy to understand what researchers are saying They get asked, but don't know enough about research and refuse (refusal rate <i>Add to Word Wall</i>) People are aware of unethical research in the past and have concerns 	<p><u>Slides</u> 35-38</p> <p><u>Handouts</u> NA</p> <p><u>Materials</u> NA</p>
~5 Minutes	<p>Review: Having a Seat at the Table</p> <p>Key Points:</p> <ol style="list-style-type: none"> CHWs act as an advocate for the community in research CHWs bring the voice of the community to research <ol style="list-style-type: none"> Stronger research means a better quality of life CHWs are critical for research 	<p><u>Slides</u> 39</p> <p><u>Handouts</u> NA</p> <p><u>Materials</u> NA</p>
	<p>Possible Transition:</p> <p>Mention that you will be talking more about the processes involved in research so that they have the tools to provide input to researchers and potentially be a part of a research team</p>	

Part IV. Science (1.25-1.5 hrs)		
~ Time Needed	Lesson Plan	Slides/Handouts
	Introduction/Transition Example Transition: <i>Before we talk about scientific research, let's talk about how we learn and find solutions to problems.</i>	<u>Slides</u> 40 <u>Handouts</u> NA <u>Materials</u> NA
~5 -15 minutes	Learning new ideas <i>Write the word SCIENCE on the board in big letters...</i> <ol style="list-style-type: none"> 1. GROUP Ask the group what comes to mind... <ol style="list-style-type: none"> a. Give them a few examples from different areas: <ol style="list-style-type: none"> i. Astronomy, Oceanography, Geology, Biology, etc. ii. Focus on just generating concepts (studying the human body, studying animals, studying the weather, etc.) 2. (Optional) GROUP ACTIVITY <ol style="list-style-type: none"> a. If there is time, pairs can take turns asking questions about what the person “studies” to build background knowledge of the wide variety of themes related to health science <ol style="list-style-type: none"> i. Cardiologist - A person who studies the heart <ol style="list-style-type: none"> 1. You can play 20 Questions 2. You can give each person a sticky note to put on their forehead so they can't see. Their job is to “discover” their job. 3. Highlight a few of the questions that they added that are interesting or resonate with the group. 4. What is science? (<i>Add to Word Wall</i>) 	<u>Slides</u> 41-44 <u>Handouts</u> NA <u>Materials</u> Paper strips or sticky notes with types of health doctors (obstetrician, dermatologist, psychiatrist, neurologist, etc.)

	<ul style="list-style-type: none"> a. Science is the process of trying to solve problems to understand the world b. Doctors are scientists trying to discover how to cure diseases or fix a problem people have <p>5. QUESTION: Has anyone ever done a scientific experiment?</p> <ul style="list-style-type: none"> i. Talk about experiences with various types of science ii. We are going to spend a lot of time talking about that today... 	
10 minutes	<p>Thinking Like a Researcher</p> <p>Example Transition:</p> <ol style="list-style-type: none"> 1. <i>Ask: When is a time you had to find information recently? What did you do?</i> 2. Get 2-4 examples from group... <p>Key ideas:</p> <ul style="list-style-type: none"> i. <i>Guess what - You are thinking like a researcher!</i> ii. <i>You are asking questions, watching and listening, and making an educated guess based on the information you have.</i> iii. <i>Emphasize when we use the word Researcher (Add to Word Wall), we are usually talking about someone who works for a university or company and follow certain rules when they investigate new things</i> 	<p><u>Slides</u> 45</p> <p><u>Handouts</u> NA</p> <p><u>Materials</u> NA</p>
15 minutes	<p>How do we know if something works</p> <ol style="list-style-type: none"> 1. Go through Marta's cookie story <ul style="list-style-type: none"> a. Marta tries to remember how to make her favorite chocolate chip cookies from childhood. b. She makes a batch but they are too hard and crunchy. 2. What is her hypothesis? (Add to Word Wall) <ul style="list-style-type: none"> b. What are variables? <ul style="list-style-type: none"> i. Independent Variable (Add to Word Wall) ii. Dependent Variable (Add to 	<p><u>Slides</u> 46-58</p> <p><u>Handouts</u> How Research Works</p> <p><u>Materials</u> NA</p>

	<p><i>Word Wall)</i></p> <p>iii. Controlled Variables (<i>Add to Word Wall)</i></p> <p>1. Confounders (<i>Add to Word Wall)</i></p> <p>2. Equipoise (<i>Add to Word Wall)</i></p>	
40 minutes	<p>1. ACTIVITY: Do Penny Cleaning Experiment (or similar simple experiment)</p> <p>a. Review different cleaners and make an educated guess about which cleaner will work the best.</p> <p>b. Clean the pennies with the same amount of cleaner for the same amount of time in paper cups</p> <p>c. Talk through the elements and fill out the rest of the chart in the HANDOUT How Research Works based on what you just observed</p> <p>(Optional:) If there's time, students can use the blank versions to plot out their own experiment using the scientific method <i>ing, etc.</i></p>	<p><u>Slides</u> 59</p> <p><u>Handouts</u> How Research Works Cont.</p> <p><u>Materials</u> Penny Cleaning Experiment Materials (see p. 3) Need a penny for each kind of cleaner</p>

Part VI. Scientific Research (~1.25-1.5 hrs)		
~ Time Needed	Lesson Plan	Slides/Handouts
5 minutes	<p>Quality control and ethics in research</p> <p>Talk about the care you took to make sure all the pennies had a similar situation (timing, cup material, etc.)</p> <p>○ You might want to do the experiment again. Need the same situation.</p>	<p><u>Slides</u> 60-64</p> <p><u>Handouts</u> NA</p> <p><u>Materials</u> NA</p>

	<ul style="list-style-type: none"> ○ You can feel confident that it worked and will work again ○ Finding truth, not necessarily getting the answer you'd prefer ○ Reiterate that we know that a lot of bad research was done <i>In the past.</i> 	
30-40 minutes	<p>Transition Example: So we've talked a lot about the rules that have been put in place. Part of that is having rules about how we collect information. There are a lot of words that will be important to know...</p> <p>Qualitative v. Quantitative</p> <p>In qualitative research, researchers observe people's daily lives. They interview people. They find patterns in what people do and what they think.</p> <p>In quantitative research, researchers use tools to measure what they study.</p> <p>Read the descriptions of different kinds of research. Place each description in the right category.</p> <ol style="list-style-type: none"> 1. Qualitative <i>(Add to Word Wall)</i> 2. Quantitative <i>(Add to Word Wall)</i> 3. ACTIVITY: Matching activity 4. Have participants work in pairs to match each card to the right category using HANDOUT Qualitative and Quantitative 5. If they need help remembering, quantity=numbers, quality=how something feels 6. Randomization <i>(Add to Word Wall)</i> <ol style="list-style-type: none"> a. Explain bias...give examples of bias in real life... You might be biased that your child is the most talented at the school talent show 7. Study blinding <i>(Add to Word Wall)</i> 	<p><u>Slides 65-79</u></p> <p><u>Handouts</u></p> <ul style="list-style-type: none"> ● Quantitative and Qualitative Research <p><u>Materials</u></p> <p>Examples cut into cards</p>

	<ul style="list-style-type: none"> 3. Single, double 4. Triple blind <ul style="list-style-type: none"> a. Linda example - do together 8. Longitudinal and Cross Sectional (<i>Add to Word Wall</i>) 	
10 minutes	<p>Transition: Mention that sometimes people don't get medicine when doing an experiment. Sometimes there are interesting results though...</p> <ul style="list-style-type: none"> 1. Placebo effect (<i>Add to Word Wall</i>) 2. Watch until 1:1 on video about the placebo effect <ul style="list-style-type: none"> a. https://youtu.be/2JXC1JHoE_U 3. Discuss points of interest with group <ul style="list-style-type: none"> a. Mention this is a concept that might come up when explaining research 	<p><u>Slides</u> 80-81</p> <p><u>Handouts</u> NA</p> <p><u>Materials</u> Placebo Effect Video (STOP AT 1:19)</p>
20 minutes	<p>Tools for Research Depending on the type of research, there are many ways things are measured. Review the tools people might use for research</p> <p>PAIRWORK: Have students match the name, picture, and use from HANDOUT Measuring Tools</p> <p>This could be done on a large wall. Depending on the size of the group, you could give each person a card and have them find their matches or tape them on the wall/paper.</p> <p>Validity and Reliability (<i>Add to Word Wall</i>)</p> <ul style="list-style-type: none"> 1. Review examples 2. Emphasize that studies need to show they can be repeated 	<p><u>Slides</u> 82-86</p> <p><u>Handouts</u></p> <p><u>Materials</u> Thinking About Measurement Cards</p>
5 minutes	<p>Reiterate additional terms they might come across:</p> <p>Experimental, Quasi-experimental and Non-experimental (<i>Add to Word Wall</i>)</p> <p>Refer back to cookie example to reiterate the concepts.</p>	<p><u>Slides</u></p> <p><u>Handouts</u> NA</p> <p><u>Materials</u></p>
10 minutes	Addressing People's Concerns	<u>Slides</u>

	<ul style="list-style-type: none"> ● Biorepositories and Data Banks <i>(Add to Word Wall)</i> <ul style="list-style-type: none"> ○ Emphasize systems in place to keep information safe Good recordkeeping <ul style="list-style-type: none"> ○ Why does the research team need to be excellent at recordkeeping? <p>Transition: We just talked about a lot of ideas...</p> <p>Talking about Research Imagine you are at a party and some of the guests have their own ideas about research. What ideas would you share with them?</p>	<p>87-91</p> <p><u>Handouts</u> Talking About Research</p> <p><u>Materials</u> <u>NA</u></p>
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Part VII Participant Rights (~30 minutes)		
~ Time Needed	Lesson Plan	
30 minutes	<p>Review:</p> <ol style="list-style-type: none"> 1. Example Intro: <i>We know that participant rights were not always thought about in the past</i> <ol style="list-style-type: none"> a. IRB <ol style="list-style-type: none"> i. The plan is honest ii. People will be treated well iii. Any hurt or pain is a very small amount iv. Makes sure people understand the study and agree to be in it v. Makes sure researchers follow the plan vi. Approves the plan or says there need to be changes 2. 🐼 ACTIVITY: Chewing Gum Study <ol style="list-style-type: none"> a. Use this as an opportunity to talk about different roles people play (Principal Investigator, Project Coordinator) b. With partner, give Dr. Jones your suggestion about their idea for the study. 3. Stress the ethics of research - <i>it is really important that researchers follow the rules! And CHWs too!</i> 	<p><u>Slides</u> 92-98</p> <p><u>Handouts</u> Chewing Gum Study</p> <p><u>Materials</u></p>

Part VIII Research and the Community (~1.5-2 hrs)		
~ Time Needed	Lesson Plan	
30 minutes	<p>What communities are you a part of?</p> <ol style="list-style-type: none"> Possible responses: <i>People might say religious community, activist community, LGBTQIA community, neighborhood community, etc.</i> We know researchers want to study different groups of people <p>2. How do researchers choose people for studies?</p> <ol style="list-style-type: none"> They also need to think about: <ol style="list-style-type: none"> Know what they want to learn Follow rules about how to treat people Choose the right people for research <ol style="list-style-type: none"> Inclusion criteria (<i>Add to Word Wall</i>) Exclusion criteria (<i>Add to Word Wall</i>) PAIRWORK - HANDOUT Getting the Right Participant <ol style="list-style-type: none"> Note that CHWs might be able to have more of a say about who should be in the study if they are at the research table and improve it! 	<p><u>Slides</u> 99-103</p> <p><u>Handouts</u> Getting the Right Participant</p> <p><u>Materials</u></p>
30 minutes	<p>Connecting with the Community</p> <ol style="list-style-type: none"> How do people learn about research to participate in? How long does research take? <ol style="list-style-type: none"> <i>Why don't we just pay people a bunch of money to participate?</i> <ol style="list-style-type: none"> Ethics Not be a good fit See it as a "job" \$200 or more means more information to the government Attrition (<i>Add to Word Wall</i>) 	<p><u>Slides</u> 104-115</p> <p><u>Handouts</u> Sample Study Flyer</p> <p><u>Materials</u></p>

	<ul style="list-style-type: none"> c. How do we make sure people stay connected? <ul style="list-style-type: none"> i. Relationships ii. Good communication iii. Planning long-term <p>Questions about \$</p> <p>How do we talk about these ideas with our community?</p> <p>2. Dissemination of Information</p> <ul style="list-style-type: none"> a. Brainstorm ideas about how they might share back information that is found in studies. <i>Why is this important? How might you do it?</i> <p>3. <i>Talk about feelings of participating in research but never knowing where it leads</i></p> <p>4. Getting the Word Out About Projects</p> <ul style="list-style-type: none"> a. Review sample flyer...You've been asked to give advice to the Principal Investigator about a study flyer. <ul style="list-style-type: none"> i. PAIRWORK: With partner, choose on you like or dislike and what you will tell the PI. 	
20 minutes	<p>Optional:</p> <p>Transition: We just learned a lot of vocabulary... Explain: <i>Let's practice talking about some of these ideas. Let's pretend we are part of a research team. One of you will be a CHW and one will be a patient. Your job is to explain the information to your "patient." Their job is to ask questions. If you don't know the answer or aren't sure, make a list of questions you would go back and ask the researchers later.</i></p> <ul style="list-style-type: none"> 1. After the first role play, talk about what ideas were difficult, what questions they had, what you would need to know more about, etc. 2. Switch roles and do the second scenario. 	<p><u>Slides</u> 116</p> <p><u>Handouts</u> Talking About Research</p> <p><u>Materials</u> NA</p>
	<p>Wrap Up</p> <p>Finish any assessments, logistics, etc.</p> <p>Follow up needed</p> <p>THANK YOUs!</p>	<p><u>Slides</u> 104-116</p> <p><u>Handouts</u> Sample Study</p>

		Flyer <u>Materials</u>
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Supplementary Ideas

Students may benefit from a number of the following activities for additional practice and vocabulary building:

- Cheat Sheet (Homework)
 - Vocabulary Notecards
 - Crossword Puzzles
 - Word Searches
 - Graphic Organizers (if helpful)