

# EHLR Module 1: Engaging with Your Community

## **Laurel:**

Welcome to the Environmental Health and Land Reuse (EHLR) webinar training Module 1, Engaging with Your Community

The objectives for today are to describe how to create an activated development community and learn what that is. You should be able to identify at least two principles of community engagement and three community engagement tools that you could use in your work. Finally, you should be able to explain the role, responsibilities, and scope of practice of a development community team member.

So, what is the role of an environmental or health professional? In the next slides, we will discuss the varied aspects of our role engaging communities in land reuse.

Your role as an environmental or health professional can be pivotal in engaging the development community.

The development community is a group of partners that have a vested interest in the community. They could be citizens, community planners, local organizations, the water company, tribal governments, schools, health care, and police departments.

I like to say that we typically come in as invited guests. Our role is to provide some level of assistance in health education and hazard identification to support health-focused redevelopment.

An environmental or health professional can set the tone for early community involvement.

Your knowledge about contamination and hazardous exposures, the environment, and health may be welcomed by the community. You may facilitate a community meeting, such as the one shown on the right of the slide. This environmental or health professional puts the community first.

A key point to remember is that what you think may not be what the community thinks. For example, ATSDR worked with one community in Missouri that was trying to clean up and redevelop a very damaged school building. The school was all boarded up and the roof was missing.

Outside consultants thought that the school needed to be demolished. However, it was important to ask the community why they wanted to keep the school. In this case, the old school was important to the community and represented their history. When consultants would tell them that the school should be torn down, the consultants lost credibility.

I will turn it over to Huda who will continue describing the role of an environmental or health professional in land reuse.

**Huda:**

Hi. I'm Huda. In our role as environmental or health professionals, we need to assess and understand the five parts of exposure pathways.

There are five elements of the exposure pathway. Each element is evaluated to determine if people could be exposed to site-related contamination. The video link on the right side of the slide explains the five parts of an exposure pathway.

Take a few minutes to watch the video. It can be viewed at the following closed-captioned link: <https://www.youtube.com/watch?v=LG5MdCuro6Y>

There are five parts of the exposure pathway, and each is evaluated to determine if people could be exposed to site-related contamination.

The first part identifies a contaminant source or a place where the chemical was released.

The next part looks at how the chemical might move or change in the environment.

Some chemicals break down when exposed to air, water, or microorganisms such as bacteria. Air, soil, and water are the major elements that can move or change a chemical.

Sometimes the chemical can get into plants and animals that people eat. So we also consider how eating contaminated plants and animals could affect a person's health.

The third part looks at where people could come in contact with the chemical. Some examples of this include outdoor or indoor air, drinking water taps, residential yards where the chemical was spilled, and the food supply.

The fourth part looks at how the chemical enters a person's body. In other words, is it possible to inhale or breathe in the chemical, to drink or ingest the chemical from water, soil, or the food supply, or to absorb the chemical by touching water or soil?

The fifth and final part in the exposure pathway evaluates whether there are people in the community who could be exposed. For example, if someone uses a public water supply, they would not be exposed to any contaminated groundwater from an old well that is on their property that no one uses.

We also want to assess the extent of community exposure to contamination in the land reuse site or source. For example, how widespread is the contamination? How many people are exposed? How close are people to the contaminant? Where's the nearest daycare center? Where's the nearest nursing home? Which way does the wind blow? Could dust migrate from the site? Is there run-off from the site?

An environmental or health professional can assess and understand all exposure pathways.

The image on the right shows the five elements of an exposure pathway.

Health assessors need to examine these following five elements:

1. Contaminant source: Where did the contaminant come from?

In this case, it was a spill. Or, it could be a buried underground storage tank, or lead dust from old housing stock.

2. Environmental fate and transport: How do contaminants released to the environment move through and across different media? How do they degrade or transform in the environment?
3. Exposure point: What is the specific location(s) where people might come into contact with a contaminated medium?
4. Exposure route: This is the path by which contaminants enter the body (dermal, inhalation, or ingestion).

It's a good idea to ask yourself if there is a completed exposure pathway. For example, if someone's yard is contaminated, we can be reasonably certain that residents in the house are exposed to contaminated soil. Children get exposed when they play in the yard and adults get exposed when they work in the yard. Children and adults are also exposed to the contaminant when outdoor soil is tracked indoors and becomes part of the indoor dust. Exposure occurs because of inadvertent hand-to-mouth activities.

5. Potentially exposed population: People are potentially exposed if one of the five elements is missing. Let's say that we have soil sample results from a neighborhood that shows several properties are contaminated with arsenic. People who live at other properties in the neighborhood are potentially exposed if their properties have not been sampled to confirm whether their soil is contaminated.

As a tip, be sure to consider past, current, and future exposure conditions because the elements of the exposure pathway could change with time.

I will now describe how we engage and activate communities.

The practice of community involvement requires earnest, respectful, and continued attention. To successfully create a collaborative environment, establish clear expectations, communicate effectively and always put your community first.

The community can be an asset in identifying land reuse sites.

You can learn about community characteristics before you meet the community, such as from census data. When you meet people, ask questions. For example, how many kids live here? Do you have information about elevated blood lead levels? What's the history of the area that might result in contamination? How many contaminated sites do you think you have?

In the photo shown on the right of the slide, a community member in a rural town grew up in the town, knows the brownfields sites, and even has had job training to become an expert lead-based paint remediation specialist. He was part of a site cleanup. He is an asset in identifying land reuse sites.

Now we will do our first knowledge check.

Select the incorrect or false answer.

When working with the development community, the environmental or health professional may

- a) Help build the community's understanding of safe land reuse and redevelopment
- b) Describe all potential and completed exposure pathways in highly technical and detailed language
- c) Establish clear expectations
- d) Understand who is affected by the land reuse site(s), particularly special populations
- e) Communicate effectively
- f) Share their knowledge of hazardous exposures, the environment, and health education, where appropriate

g) Always put the community first

I will pause for 10 seconds to give you a chance to select the incorrect answer.

[No audio]

B) is FALSE. Environmental or health professionals should communicate in plain language to ensure everyone understands the potential and completed exposure pathways. Highly technical and detailed explanations may confuse community members or be hard to interpret. A), C), D), E), F), and G) are all correct.

You can strengthen your role in community engagement by partnering with community champions.

You can find and build community champions by identifying non-profit organizations and community groups with an environmental focus such as friends of the park.

Find organizations that have been awarded environmental grants such as brownfields grants.

As an environmental or health professional, you may become a trusted advisor and member of the development community. Your partners may look to you for reliable and accurate information about contaminants, risks, exposures, and site redevelopment ideas.

In the photo on the right, community champions in a development community are discussing health focused redevelopment.

I will turn it back over to Laurel who will describe the different roles of the development community.

**Laurel:**

Hi, I'm going to describe the primary roles of people involved in the development community.

The heart and soul of most of our work are the community champions.

A community champion lives in the community and is passionate about the community's physical and mental health. They go the extra mile to engage and inform their community.

A community champion also engages the community by encouraging their participation in land reuse activities. They also learn about environmental health issues so they can communicate environmental risks. And finally, they can provide insight into ways to measure success.

The photo on the right shows a community champion leading a meeting about Brownfields.

Another role is a community planner.

The photo on the right shows two community planners, someone from a Navajo local government and a consultant who assists a variety of communities to plan redevelopment projects.

Community planners manage all aspects of the project, from start to finish. They manage all logistics. Tasks include scheduling site assessments, meeting grant milestones, and conducting public meetings, among other activities.

Another role is someone who works in the local government such as a city manager or mayor's office staff member. They work for a city, county, or tribal government. They're involved at all steps of the redevelopment process. In the image on the right, municipal officials are featured in ATSDR's Land Reuse Toolkit.

Environmental professionals also play an important role in the development community.

Some environmental professionals work with the private sector, U.S. EPA, or state environmental agencies in site remediation or clean-up.

Some environmental professionals work at ATSDR or are state partners in our ATSDR Partnership to Promote Local Efforts to Reduce Environmental Exposure, or APPLETREE. Environmental professionals may be part of the development community. They help evaluate and communicate environmental and health risks.

The photo on the right represents an environmental health specialist who works with a county health agency.

It may be important to have a developer be a part of the project.

The developer is in charge of the development steps of the project, from planning through actual site reuse. They're usually involved in all steps, but primarily in the redesign.

In some smaller communities, the developer may be rural U.S. Department of Agriculture, or the community itself.

Let's revisit your role with community champions.

Community champions are busy and can use your support. You can develop a trusting relationship and provide your expertise about contamination, risks of exposure, and redevelopment techniques.

The people in the photo in the middle of the slide are holding a poster mockup of a \$500 check. They showed up at every meeting. This \$500 check going to this community meant the world to them because it showed their dedication to the project.

Now I am going to turn it over to Huda who will lead with a couple knowledge checks.

**Huda:**

Thank you, Laurel. Let's do a couple of knowledge checks.

Which answer is correct?

The community planner is

- a) The person who is qualified to provide environmental and health services to a community
- b) The person in charge of the development aspects of the project
- c) A person living in the community who is passionate about his or her community's health
- d) The person who manages the redevelopment project from start to finish

I will pause for 10 seconds to give you a chance to select the correct answer.

[No audio]

D) is correct. The community planner manages the redevelopment project from start to finish. They monitor milestones and conduct public meetings, among other activities. A, B, and C are incorrect. A) refers to the environmental health professional. B) refers to the developer. C) refers to the community champion.

Next is knowledge check # 3.

Identify all the primary responsibilities of the environmental professional in the redevelopment of a land reuse site.

- a) Provide office management resources
- b) Conduct a site assessment
- c) Activate the community to make them aware of the site
- d) Conduct environmental cleanup of site

e) Conduct a community health analysis

I will pause for 10 seconds to give you a chance to select the correct answers.

[No audio]

Answer: B), D), and E) are correct.

These are B) conduct a site assessment, D) conduct environmental cleanup, and E) conduct a community health analysis. These are the primary responsibilities of the environmental professional. If they work for private sector, EPA, or a state environmental agency, they may be involved in site assessment and cleanup. If they work for ATSDR or a state health agency, they may be involved in community health analysis. Answer A is incorrect. This would be a responsibility of an administrative assistant or an office manager.

Let's talk about some methods of community engagement.

Community engagement can take time. The photos shown on the slide are of community land reuse meetings that occurred in Navajo Nation with multiple partners. The meetings occurred after a one-year engagement process about how agencies can jointly manage land use and redevelopment. Some of the most successful projects occur when ample time is allocated to community engagement. It builds trust, collaboration, and cohesion.

One of the resources that we have available as a method to engage people is the ATSDR Communication Toolkit.

**It is available at the following link:**

<https://www.atsdr.cdc.gov/communications-toolkit/about/index.html>

The ATSDR Communication Toolkit has tools to increase your communication skills, such as

- A Guide to Materials Development (this is geared to ATSDR staff, but provides useful guidelines in general)
- Community Meeting Guidelines
- A Community Concern Assessment Tool
- A Message Mapping Tool

You'll learn more about message mapping and the community assessment tool in module 3.

These are just a few of the tools in the ATSDR Communication Toolkit. Check out the full toolkit on your own time at the link provided in this slide.

The communication toolkit provides tips for PowerPoint Templates, such as:

- Use the minimum number of slides possible to keep the audience's attention
- Use as few words on slides as possible
- Use plain language as much as possible
- Use relevant visuals on slides (e.g., maps and photos of the site)
- Avoid jokes or humor which may be misinterpreted to mean you are not taking the situation seriously
- Review the points on your slides against the message mapping template, worksheet, and checklist to evaluate your messaging before delivery

In the Communication Toolkit's Community Meeting Guidelines, you're instructed to develop some understanding of the community, their demographics, and history related to environmental issues and health concerns. We usually start by talking to our community partners and asking them about the community. We also use resources, such as the U.S. Census Bureau.

To prepare for a community meeting:

Invite as many community members as possible. Your group will likely get smaller over time. You'll have a core group, but you don't want to leave anyone out.

Set expectations to explain who you are and explain what you can provide.

One of the first things many of us at ATSDR will say when we go to a community meeting is that we are environmental health professionals, and we are not a regulatory agency. We can't force anyone to do anything. But we have a lot of experience working with communities at hazardous waste sites and can speak about possible harmful effects from exposure to environmental contamination. We can also speak about things you can do to protect your family. We work closely with other federal agencies, like the U.S. EPA who is responsible for cleaning up hazardous waste at Superfund sites.

Being a non-regulatory agency often helps people feel supported. They may distrust government or have concerns about contamination impacts, and we spend a lot of time listening and trying to provide resources.

We explain what we can provide and what we can't provide.

We are also prepared to address basic questions about the contamination and how community members can protect themselves if needed.

Additional Community Meeting Guidelines include:

Understanding that the community may experience a high level of concern even when the risk from contamination is low. Be prepared to discuss this.

For example, this is where we can discuss the difference between a potential and a completed exposure pathway. And we can go further and explain that it's the amount of exposure that determines whether people in the community might get sick from the contamination.

When we talk with people we should empathize with their situation, be honest, and show humility. This helps build trust with community members.

Empathy and sympathy are not the same things.

An example of sympathy is when someone tells you that they are worried about their child's health after playing in a creek that had contamination and you respond, "I'm so sorry that your child played in the creek and you are now worried." The person may feel dismissed or that you don't really understand how they feel. Showing empathy is saying, "I'm really sorry that this happened. I can see how worried you are. I hope that your child is not affected or can get through the trauma of this event. I am always here if you want to talk about it."

Make sure to have an initial meeting to get to know each other and listen to the residents' concerns. Let them know you will get an answer from an expert if you don't have the answer. Listen carefully and frequently make sure you understood concerns. Also, ask for feedback at least 2 or 3 times throughout the meeting. Provide your phone number and email address to help develop relationships.

Be sure to use plain language and avoid technical terms as much as possible. If you have to use technical terms, explain them.

Consider using a translator, if necessary. Before you go to the community, find out if non-English speakers are likely to attend your meeting. If so, you will need a translator.

Laurel, can you explain what happened in one of your community projects?

**Laurel:**

Yes. Back in 2009, I was working in a small city of about 12,000 population. We had only the 2000 U.S. Census data and did not have updated population estimates.

We checked census data before our first meeting. From the 2000 census data, we learned that the community was 21% Hispanic. However, by 2009, the community had grown from 21% Hispanic to 50% Hispanic. Fortunately, our partners spoke fluent Spanish. Otherwise, we could have frustrated the community by not speaking or translating to their language.

Huda, can you discuss a situation where there may be high community concern but low exposure risk?

**Huda:**

Sure. Let's touch base on this.

How can you manage a situation where there is high community concern but low risk of exposure?

The image shown in the middle of the slide is a brownfield. There is a fence and some barbed wire around the top of the fence. The fence is to keep people out of the brownfield in a former rail yard in Chicago. The brownfield site contained metals in soil and multiple oily puddles, so the site was restricted to minimize exposures.

Fencing off a site is one way you can manage a situation where there's high community concern but low risk of exposure. One of the fastest, quickest things you can do is fence the site, lock the site, and make sure people can't climb in or break a lock.

Even with these precautions, you might still get the occasional trespasser. The environmental health professionals on your development team can assess this type of exposure to see if it's a concern.

Now I will transition to respectful communication.

Let's talk about respectful communication. The language we use is really important. For example, I previously worked in healthcare where some patients were addicted to opioids. The most respectful way for me to refer to this population is to say, "people with opioid use disorder, or people who use opioids." It is less stigmatizing and recognizes people before it recognizes a problem. Similarly, we say children with soil-pica behavior when describing preschool children who have the habit of purposefully eating soil.

Here is another example:

Instead of saying "the homeless," we can say "People who are experiencing homelessness," or "people who are unhoused."

If you don't know, you can ask the community what's the most appropriate term to use or if there are terms that shouldn't be used.

Now, I will turn it back over to Laurel, who will introduce principles of community engagement.

**Laurel:**

Thank you, Huda.

Community engagement practitioners and leaders across the country previously defined 9 principles of community engagement. In 2024, they added a 10<sup>th</sup> principle of community engagement. Environmental and health professionals use these principles on a daily basis.

The first principle is to be clear about the purposes or goals of the engagement effort and the populations and/or communities you want to engage.

Principle 2 is to become knowledgeable about the community's economic conditions, social networks, political and power structures, norms and values, demographic trends, history, and experiences with efforts by outside groups. Be aware of each other's perceptions of past engagement activities.

Principle 3: build and maintain relationships and trust by working with individuals and/or community leaders.

Principle 4: remember and accept that collective self-determination is the responsibility and right of all people in a community. No external entity should assume it can bestow on a community the power to act in its own self-interest.

Principle 5: establish a partnership with the community to create change and improve health.

Regarding principle 2 —becoming knowledgeable about the community— try to learn as much as you can about the community both before you visit and when you visit, whether live or virtually. You may say, "I'm sorry. I don't know a lot about your community, but I really want to learn more."

Also ask questions, such as "What has brought you to where you are? Has there been anything that the community would consider traumatic?"

For example, if you are going to work with Indigenous or tribal populations, you may want to read historical information, in advance.

Principle 3 involves building relationships and trust. This can take time. Be prepared to invest your time, remain connected to, and be a resource for the community over time.

Let's review the next 5 principles of community engagement.

Principle 6: Recognize and respect the variety of people within the community.

It is ok to say, "Tell me about your community. How can I learn more?" This opens communication channels and places the community first.

Principle 7. Identify and mobilize community assets and strengths through developing the community's capacity and resources to make decisions and take action.

Principle 8. Recognize that individuals and institutions must be prepared to release control and be sufficiently flexible to meet changing needs.

We like to start by emphasizing the positives. Ask questions such as, “What do you like about being here? What makes it pleasant?” After you learn about the strengths, then you can ask, “What makes it unpleasant?” Then ask, “What would you like to change?”

Principle 9: Foster community collaboration and strengthen long-term commitment among the partners.

Principle 10 was added in 2024. That is the principle of trustworthiness. Demonstrate trustworthiness as it is fundamental to sustaining successful community engagement.

We will now complete 2 more knowledge checks.

Select all that apply:

Community engagement can be sustained by

- a) Attaining 100% community buy-in
- b) Identifying and mobilizing community assets and strengths
- c) Allowing the community champion to manage the project
- d) Increasing the development community’s ability to make decisions and act on them

I will pause for 10 seconds to give you a chance to select the correct answer.

[No audio]

**Answers** B) and D) are correct. Community engagement can be sustained by identifying and mobilizing community assets and strengths and by increasing the development community’s ability to make decisions and act. Answer A) is incorrect. You don’t need 100% buy-in, but you do need to communicate well. Answer C) is incorrect because the community champion can’t do everything, although it may seem like they do. They need your support and help in delegating work.

This is the fifth knowledge check.

Is the statement true or false?

The Principles of Community Engagement state that individuals and institutions must be prepared to release control and be sufficiently flexible.

- a) True

b) False

I will pause for 5 seconds to give you a chance to select the correct answer.

[No audio]

Answer: A) True: This is principle 8.

Now let's return to Huda to continue talking about methods to engage communities.

**Huda:**

There are methods to engage communities.

Establishing a unified community vision is essential to a successful redevelopment project. You can support your development community by leading brainstorming sessions about the vision for redevelopment, finding ways to build consensus on common themes, and adapting the plan to suit everyone.

It's important to consider long-term sustainability of the community vision. The following approaches and questions can facilitate discussion.

- Lead sessions about the vision for redevelopment
- Identify assets and strengths of the community. This is pulling in some of those principles of community engagement.
- Vote on common themes, if that is acceptable to the community.

Work towards plans that try to suit everybody. This is really important to consensus building among team members and goes a long way towards the success of reaching development goals.

The visioning technique helps individuals arrive at a shared community vision by getting them to talk about what their ideal environment would look like. Begin by inviting community members to a collaborative setting. They can visually draw their own image of what they would like to see their community look like. It can be as simple as covering tables with large posters of plans, maps, or even blank sheets of white paper and providing colored markers.

We want to make sure that we have everyone involved.

Make sure that young people are involved because they tend to have a lot more energy and bring the message home to the rest of their family.

During a visioning technique, ask people to describe what the community might look like in the future:

What would I see? Would there be less blight? Maybe it's more green space or fewer contaminated areas.

What would I hear? Maybe it's less noise pollution.

What would I feel, taste, or smell? Maybe it's fewer odor complaints.

These questions serve as great thought-starters but also provide guidance to keep the community and facilitators grounded throughout the process.

Next, ask the development community to start with the end in sight. What do they want to see as a result of their actions?

Then you can talk about, how will we get there? Start small by having everyone voice their issues and then work with participants to build consensus about the most important issues that the development team should address.

This is the sixth knowledge check.

Select all that apply:

Environmental or health professionals can support the development community by

- a) Leading sessions about the vision for redevelopment
- b) Finding ways to reach consensus on common themes
- c) Adapting the plan to suit everyone
- d) Supporting the development community in all the above ways

I will pause for 10 seconds to give you a chance to select all that apply.

[No audio]

The Answer is A, B, C, and D. All apply and are correct. These are all ways environmental, or health professionals can support the development community. They can lead visioning sessions, find ways to reach consensus, adapt plans, and support the development community.

Now, I will turn it over to Laurel to walk us through a tool used to engage communities in land reuse, The ATSDR Action Model.

**Laurel:**

The ATSDR Action Model Toolkit helps the wide range of members of the development community find ways to integrate health into the redevelopment. The development community can use the Action Model to identify common goals or visions and ensure they're incorporated into strategic planning goals for the development community.

The image on the right shows the 4 steps in The Action Model:

Step 1: What are the issues in the community?

Step 2: How can development address these issues?

Step 3: What are the corresponding community health benefits?

Step 4: What data are needed to measure change?

I typically use The ATSDR Action Model after the visioning technique because it's the next natural step. We can start saying, "All right. We've looked at what we like about the community, and we looked at what some of the issues are. Now let's see how we can redevelop the area to address the issues in a way that benefits community health." You can also use the ATSDR Action Model with the ATSDR Community Engagement Playbook, which we'll talk about shortly.

I will turn it over to Huda to further describe the ATSDR Action Model.

**Huda:**

The ATSDR Action Model helps bring community members right into the front stage of redevelopment and integrates health into the redevelopment plan.

The ATSDR Action Model process helps members of the development community integrate health into the redevelopment plan and identify common goals or visions. For example, one community was worried about older housing stock with lead-based paint that could poison children. They came up with a redevelopment approach (step 2 of the model) for training people on lead-safe home painting and renovation. They also proposed holding children's blood lead screening during community events.

The ATSDR Action Model is community-based and can lead to

- Improved health and quality of life
- Reduced risks such as environmental or health risks
- Boosts in community pride

Over 40 communities across the United States have used the ATSDR Action Model for health-focused redevelopment. We have been able to combine steps 1 and 4 of their action models by finding recurrent issues and indicators common to 20% of the communities. Indicators are measures of environmental and health change, such as the number of properties redeveloped over 2 years.

We also have created a unique data set of community-derived public health indicators associated with redevelopment. For example, several communities had concerns about lead-based paint in older housing stock. They selected blood lead screening results as the indicator

to measure changes in lead exposure in children. Other communities with concerns about contamination selected the indicator of pre- and post-redevelopment list of contaminants at sites.

Next, you can watch an ATSDR Action Model video clip, the Baraboo, Wisconsin Action Model Video

Baraboo was one of our first action model pilots. The video is over 10 years old, but it is still relevant today.

It can be viewed at: [https://www.youtube.com/watch?v=gYvVnNAJG\\_g](https://www.youtube.com/watch?v=gYvVnNAJG_g)

Let's take a quick pause so you can transition to the video.

**Narrator:**

The Development community identified 33 different measures of community health. These indicators of health status will be tracked over time.

**Karna Hanna:**

One thing that was very interesting about the process, that involved a lot of stakeholders — we came up with 33 different ways that we could measure changes in public health. It went from everything to how we could measure the amount of people that were walking, the facilities for walking, ways that we could measure Brownfield cleanup.

There's a lot of contamination in this area that we're trying to redevelop, and so it's going to be very important that we can document actual cleanup activities and give people confidence that this is an area where they can return to work, live, and play because the total land environment is clean.

It's a good idea to keep an open mind and foster a fair process. Development community members may even want to join the project after it has been going for a while. That is ok and helps everyone feel included and that their ideas are valued.

You may wonder, "Where can I find members for my development community?" We often start with the Chamber of Commerce, the city council, neighborhood associations, local environmental groups, community centers, and organizations (like the 4-H Club or Boys and Girls Clubs). Often, local hospitals and health clinics partner on redevelopment projects.

A good place to start is to form the development community. Find members for your development community and build up that community. These are your partners.

Then, address environmental and health issues facing the community. Ask them what conditions they want to improve. Ask how you can help them and how you can work together

to solve any problems. Also ask who else might want to be involved and encourage the community to include them.

That way, you're not leaving people out. If you notice that everyone in your community is over the age of 65, but then you check the Census and see that 25% of the community is under age 5, you may be missing some age groups. You're missing the parents of those children. You're probably dealing with the grandparents of those children. We find that people who are retired tend to be more active in their communities, but they may not speak for everyone.

You can use the ATSDR Action Model Toolkit to host your first Development Community Meeting.

The ATSDR Action Model Toolkit is available at:

<https://www.atsdr.cdc.gov/sites/brownfields/actionmodeltoolkit/>

The Action Model Toolkit includes guidance for meeting facilitators, an adaptable ATSDR Action Model PowerPoint and Blank Action Model Form. You can download these and adapt them for your first workshop or meeting.

Publications about the ATSDR Action Model are also provided under the Resources tab in the Toolkit.

This is a quick snapshot of the facilitator's guide and ATSDR's Action Model. You can download these from ATSDR's Action Model toolkit.

Let's take a look at the blank Action Model Template. Soon, we will take a few minutes to fill in at least 1 or 2 rows of the Action Model. You can use the facilitator's guide for assistance.

Here again is ATSDR's Action Model Facilitator's Guide.

It's three pages long.

There are steps on how to prepare for your workshop:

- Find a space to meet. Sometimes we don't think about this, but you need a space to meet. We try to use libraries. In some communities, local churches or clinics have meeting rooms.
- Advertise your meeting. See if a member of the community can volunteer to make and print flyers. Sometimes the city's Development Office will do this.
- Get supplies, such as copies of the blank Action Model form that's available in the toolkit, and sign-in sheets.

- Have something to write on like a whiteboard, a butcher paper roll that you can tape to a wall, or large post-it pads.
- See if your partners want to provide food and drinks.
- Consider if you'll need a computer or a projector or if it's just going to be a brainstorming session.
- Create an agenda to feel more confident about leading your meeting. You can also ask what people would like to add to the agenda because this is a partnership meeting.
- Work with participants to agree upon time limits for different activities and for the entire meeting.
- Discuss a schedule for follow-up meetings.

The Facilitator's Guide can help you get started. You can also ask your community, "How do you want to do this? Do we want to set ground rules? Do we want to go table by table? Should we work in smaller groups and then come together as a whole group? Do we need translators? Can translators come from the community?"

You might want to play a game, where everyone has 1 minute to talk. However, ask the community if that will work for them. In one community, the trend was to start late and allow elders more time to talk. This was important for us to learn from the community.

We want to make a fun, interactive session, but make sure that this is okay with the community and then try to lead the discussion. You're a facilitator. If there are any disagreements, you can ask, "Can we look at what we can agree on and work on that, and then go forward from there?"

This guide can get you through the different nuances of your first meeting, especially if you're new to having meetings.

Here is an example of an Action Model.

This Action Model focuses on community concerns about lead water service pipes and lead in paint and soil. It includes redevelopment approaches that can be taken to address these issues, health benefits as a result of addressing these issues, and data that can be collected.

Step 1 is the issue about water quality.

Step 2 is the redevelopment approaches for concerns about water quality, specifically from lead pipes. These include water testing, pipe replacement, and blood lead screening.

In Step 3, the health benefits include lower blood lead levels in children, improved community health overall, and rebuilt community trust.

In step 4, the data we need to measure change include water quality and blood lead levels.

In the next row of the Action Model Table, Step 1 is the issue of lead in yard soil.

Step 2 suggests soil screening, using ATSDR's soilSHOP, soil screening, health outreach, and partnerships.

Step 3, the health benefit, is the same as the first issue we described, and includes lower blood lead levels in children, improved health overall, and rebuilt community trust.

The data needed in Step 4 are the soil analysis or soil screening results.

A picture is worth a thousand words. Pictures can create action, evoke emotion, and raise awareness.

You can lead community projects to document community conditions through photographs and captions. This is typically called Photovoice. In the example on the right of the slide, youth in a community in Upstate New York documented the lack of playground equipment and benches, tables, and garbage cans and presented the photos to their City Council. The result was a new playground and an overall park upgrade.

You can learn more about Photovoice at this URL...

<https://journals.sagepub.com/doi/abs/10.1177/109019819702400309>

This is another example of a Photovoice.

In this example, community members compared their bus stop to one in another neighborhood. The caption says, "We have no shelter or garbage can ... nothing ... we can't sit down and wait for the bus. They have a shelter, garbage can, and bench at their bus stop."

The photo on the left shows a bus shelter open to the elements with no trash can or place to sit while waiting for the bus. The photo on the right shows a nice shelter, a bench, and a trash can. This photo provides direct and supportive evidence of differences in resources between the two neighborhoods.

You can learn more about the methods to engage communities in Chapter 3 of *Land Reuse and Redevelopment: Creating Healthy Communities*, the supplemental text for this training.

A great resource to be used for community engagement is ATSDR's Community Engagement Playbook, or "the Playbook" for short. The ATSDR Playbook is available on the ATSDR website in HTML and it is also available for download as a colorful, illustrated, 48-page booklet. You can access the Playbook at: <https://www.atsdr.cdc.gov/community-engagement-playbook/php/about/index.html>

The Playbook was developed to support public health practitioners engaging communities affected by long-term environmental contamination. Its framework and key activities can help any public health professional working directly with community members to improve health.

Also on the website, check out a new *Community Engagement Planning Tool* which helps the user drill down to identify specific goals, partners, information needs, activities, materials, and timelines for each phase of community engagement over the course of a public health interaction.

You might also like *A Guide to Active Listening* which offers the reader tips for and examples of active listening in practice.

The Playbook articulates a new framework outlining four phases of community engagement that occur over the course of a public health interaction.

The phases—shown in this slide— are:

- 1) Setting the stage - Pre getting started. In this phase, learn who your community members are and start to learn about the community a little bit.
- 2) Getting started - Start to meet with people and learn about their community concerns.
- 3) Keeping it going – Be available, check in frequently with your key partners.
- 4) Wrapping up – In this phase, we start to evaluate our program and see where we need to go in the future.

The Playbook offers the user questions to consider in each phase when working with the community, a context that reminds the user of important considerations in each phase, and a list of community engagement activities that typically take place in each phase.

Now, I am introducing Simone who will describe another method of community engagement: Community-based Participatory Research, or CBPR.

**Simone:**

Hi, I'm Simone. I am going to discuss community-based participatory research.

Community-based participatory research is a community engagement approach that encourages contribution of expertise from each member of the partnership during every step of the process.

Public health professionals, citizens, and community members are your experts. They all have different skills.

This approach brings together partners with different skills and knowledge and enhances the significance and application of research data.

Communities with projects can effectively use CBPR to overcome potential distrust of the research system. CBPR is a community-level grass roots approach that ensures partners are equal, with equal expertise.

By the end of this presentation on CBPR, participants should be able to explain:

- The Rationale for Community Based Participatory Research
- Community Based Participatory Research (CBPR): Core Concepts & Principles
- Community-Academic Partnerships - Benefits and Challenges
- Relevance of CBPR to Environmental Health and Redevelopment

Incorporating community perspectives into research is crucial for enhancing the relevance, fairness, and impact of scientific endeavors. When community members who are affected by the issues under study actively participate in the research process, their insights can lead to more sensitive, contextually appropriate, and sustainable solutions.

Engaging communities fosters trust, ensures that different voices are heard, and helps to align research objectives with local needs and priorities. This can improve the quality and applicability of findings, driving more effective policy-making and interventions that are more likely to be embraced by the communities they are designed to serve. By valuing community perspectives, researchers acknowledge that localized knowledge and experiences are indispensable to understanding complex social, environmental, and health challenges, ultimately leading to more comprehensive and impactful research outcomes.

In the next few slides, we'll explore CBPR as a tool for academics and communities working together (or any partnership really) as we walk towards achieving a victory we call health for all.

Community-based participatory research (CBPR) is an approach that fundamentally incorporates non-academic community members in all stages of research to improve health and promote change. Recognizing the limitations of traditional research methods, CBPR values the social and experiential knowledge of community members. Through this process, CBPR aspires to develop more effective health interventions and foster genuine partnerships between researchers and communities. The phrase "genuine partnerships" has a broad meaning including sharing of individual value, voice, input, resources, and power, for example. While it is not the sole approach for community research, it is one partnership model that has the potential to generate fair and appropriate health solutions, recognizing that community input is vital in creating relevant, respectful, and appealing research methods and interventions.

To reiterate, CBPR is an approach that stands on the foundation of fair involvement.

A few key definitions of CBPR include those from the Detroit Urban Research Center, the Kellogg Foundation, and Dr. Nina Wallerstein.

Let's review each definition in turn.

- A partnership approach to research that involves community members, organizational representatives, and academic researchers in all aspects of the research process.
- A collaborative approach to research that involves all partners in the research process and recognizes their unique strengths. CBPR begins with a research topic of importance to the community with the aim of combining knowledge and action to improve community health.

Let's look at the last definition we'll cover today.

CBPR embraces collaborative efforts among community, academic, and other stakeholders who gather and use research and data to build on the strengths and priorities of the community for multilevel strategies to improve community health.

From these selected definitions, CBPR can be viewed as a way of doing research – a way of orienting research – with the intent of dissolving traditional research hierarchies and involving communities from the outset on issues of importance to them. It combines academic knowledge with community insights. In this approach, in its truest sense, all members of the collective are respected, power and resources are shared, and all are involved in assessing the issues in the community, prioritizing the issues, implementing strategies, collecting and analyzing data, and interpreting and disseminating the results back to the wider community.

Although the focus is on community-based participatory research, we should also recognize the existence of other effective methods for implementing research and interventions within community environments. There is a continuum of community engaged work, with CBPR at one extreme. At the other extreme is "helicopter science," such as studying a community with little to no involvement from local scientists and no real benefit to the community. Community participation can still augment a study's applicability, practicability, influence, and longevity, even after the research has begun.

As we review the core concepts and principles that guide the CBPR, this foundation of fair involvement should be made manifest. Let's start by first defining what is community.

Let's broadly define the CBPR community to include all who are affected by the research, be it by geography, shared values, health condition, or interest, emphasizing the indispensable role of community involvement in creating meaningful health improvements.

We are all familiar with at least some of the concepts on which CBPR is built. Taking a few moments to reflect, we can derive a few principles and core concepts of community engaged research.

Take a moment to think about the following questions as though you were a member of the team seeking to address a community redevelopment issue. The team comprises academic researchers, local government officials, local NGOs, and community members.

The prompts to reflect upon are:

- What are some of the first steps to forming a research team for a community level issue? Who should be involved?
- How would the team define “success”? What should the team consider to work successfully?
- Did you decide on any rules for operating? What were they?
- What challenges might present when working together?
- Once the research is complete, what happens next?

Reflect on how the team would operate effectively to address a community redevelopment issue. What elements, like trust, would be needed and how would they be achieved?

Let’s review now some important core concepts and principles of CBPR that describe its attributes for achieving effective collaboration for addressing community-level issues.

Again, CBPR recognizes that it is important to involve community members of a study population in all aspects of the study. The participants are given equal consideration as the researchers are in collaborative decision making so that change is more easily facilitated and translated to action. It recognizes the community as a unit of identity whose input increases the credibility of the project and its translation into action. This empowers the community as change agents to address their own, self-defined issues through collaborative action, bridging expertise and resources of all participants—research and community members. The process should build trust between all stakeholders.

In summary, the characteristics of CBPR as a research approach, as outlined by the Detroit Community-Academic Urban Research Center are

- (a) Builds collaborative partnerships in all research phases and involves an empowering and power-sharing process, where all stakeholders recognize the knowledge and expertise of each other, there is open communication, and mindful, intentional shared power and control over each phase of the research process.

- (b) Recognizes community as a unit of identity, where emotional connections, values, and norms are shared. Units could be defined by geography or common identity, for example.
- (c) Builds on the community's strengths and resources including social networks, expertise, and established systems (for example, community organizations and faith-based organizations).
- (d) Facilitates co-learning and capacity building among all partners where each partner brings their expertise and skills to the table and recognizes the value of each other's offerings. In true partnership there is learning by all from all.
- (e) Utilizes an ecological approach where the context of the community is most relevant (including social networks) and focuses on the social determinants of health factors.
- (f) Seeks to achieve mutual benefit to all partners where the research efforts benefit the community through translation and policy change as well as the researchers.
- (g) Disseminates findings to the wider community and involves all partners in the process of dissemination. All partners are involved in interpreting and disseminating the research findings to the wider community in an appropriate community context. This is critical for effective action plan development. The nature of the dissemination is also mutually determined and done jointly.
- (h) Recognizes the long-term process and commitment to sustainability of the partnership and relationships built to accomplish the work and future projects. True CBPR facilitates on-going collaboration and partnership with local agencies and organizations. CBPR emphasizes the establishment of relationships and commitments that extend beyond a single research project or funding period. CBPR is conducted in a way that strengthens on-going collaboration among community-based organizations, public health agencies, health care organizations, and educational institutions.
- (i) Addresses issues of social concerns and customs that are important to the community.

Core values of CBPR are mutual respect and a belief that each partner has the potential to contribute something of equal worth to the project at hand. We must be careful not to offer a token or minimal involvement but realistic and vital engagement in research. Researchers must genuinely be convinced that community partners have something to offer. As partnered research proceeds, lines between researcher and research subject become blurred. Academics become part of the community, and community members become part of the research team.

From the partnership perspective, there are a plethora of benefits that can be released from the core attributes of CBPR. A few notable benefits of true, authentic CBPR partnerships include

- (1) All partnership members feel equally comfortable speaking openly and honestly, sharing their points of view and opinions. Partners respect each other's differences.
- (2) Partners commit to sustainability of the collaborative partnership and the capacity built through its utilization in future projects.
- (3) Research translation into action steps is more relevant and applicable to the communities and has a greater potential to be sustained long-term.

(4) Trust is built between academics and communities for promoting community health.

The benefits extend beyond the 4 points given here and can be uniquely defined by each partnership. We can visit a few example partnerships that utilize CBPR for community health promotion.

While not an expansive list, a few notable challenges of conducting community engaged research using a CBPR framework include:

- Most grants leave little time to build authentic, sustainable relationships, establish relationships, and codevelop goals and ideas, in addition to conducting high-quality research all of which CBPR requires. Time, or lack thereof, is a major challenge.
- Key et al., 2019 identified sustainability as another challenge – challenges to maintaining resources, morale, and fairness with competing priorities and social stressors.
- Community members have many competing priorities which make their consistent participation in CBPR projects challenging. It is important to respect the time that partners have to give and to be flexible so that people do not have to give up their existing roles in the community to be partners.

Despite these and other challenges, partnerships engaged in CBPR-guided research projects have greater potential to positively impact community health, making the strategy well worth the effort.

CBPR as a collaborative research strategy for addressing community-level environmental exposures has been used by several partnerships across the United States. Using CBPR in communities—from the Flint Water Crisis to Detroit and air pollution, to farmworker health in California and Georgia—has increased knowledge and capacity to address environmental challenges within these communities.

In summary, community-based participatory research (CBPR) emphasizes community representation in all phases of the research process, builds research capacity, and supports community resilience and strength. Despite its challenges, partnerships engaged in CBPR-guided research projects have greater potential to positively impact community health, making the strategy well worth the effort as we seek to broadly improve health.

We end with a quote from Martin Luther King that states

“All labor that uplifts humanity has dignity and importance and should be undertaken with painstaking excellence.”

Let's continue our labor with the appropriate tools for engaging all fairly in the work to achieve community health.

This is a list of CBPR resources.

Partnerships for Environmental Public Health:

<https://www.niehs.nih.gov/research/supported/translational/peph>

Community Campus Partnerships for Health

<https://ccphealth.org/>

YPAR Hub, University of California Berkeley:

<https://yparhub.berkeley.edu/home>

Community Tool Box:

<https://ctb.ku.edu/en>

Detroit URC Online Course on CBPR: A Partnership Approach for Public Health:<https://detroiturc.org/about-cbpr/online-cbpr-course>

Yale School of Medicine Community Based Participatory Research Guidebook:

<https://medicine.yale.edu/internal-medicine/genmed/eric/cbprguidebook>

There are several additional resources or references you may find to be useful. These include

- Israel BA, Schulz AJ, Parker EA, Becker AB. Community-based participatory research: policy recommendations for promoting a partnership approach in health research.
- Israel BA, Schulz AJ, Parker EA, Becker AB, Allen AJ, III, Guzman JR. Critical issues in developing and following community-based participatory research principles.
- Detroit Community-Academic Urban Research Center
- Brush, B. L., Mentz, G., Jensen, M., Jacobs, B., Saylor, K. M., Rowe, Z., Israel, B. A., & Lachance, L. 2020. Success in Long-Standing Community-Based Participatory Research Partnerships: A Scoping Literature Review.
- Wallerstein, N., Duran, B., Oetzel, J. and Minkler, M. 2018. Community Based Participatory Research for Health

- Key, K. D., Furr-Holden, D., Lewis, E. Y., Cunningham, R., Zimmerman, M. A., Johnson-Lawrence, V., & Selig, S. 2019. The Continuum of Community Engagement in Research: A Roadmap for Understanding and Assessing Progress.

**Huda:**

Thank you to Simone for the review of CBPR.

Additional community engagement tools include the Health Impact Assessment. This is implemented before a project is started to determine whether it will have health impacts. It's used a lot for new growth, such as a new redevelopment rail corridor, a new hospital, a proposed redevelopment plan, or new corporation.

You can learn more about the Health Impact Assessment at: <https://www.cdc.gov/healthy-places/php/health-planning-tools/health-impact-assessment.html>

There is another community engagement tool called the Protocol for Accessing Community Excellence and Environmental Health (or PACE EH). It is used largely by health agencies to determine environmental impacts in communities, and to get those conversations with communities going.

You can learn more about PACE EH at: <https://www.naccho.org/uploads/downloadable-resources/Programs/Public-Health-Infrastructure/MappPaceApex.pdf>

We will now continue on to the rest of the knowledge checks.

Knowledge Check 7.

Select the best answer:

The visioning technique for building a shared community vision begins by

- a) Interviewing community leaders
- b) Encouraging community members to talk about what their ideal community might look like
- c) Conducting role playing with different members of the community
- d) Telling the community what is best for their land reuse site

I will pause for 10 seconds to give you a chance to select the correct answer.

[No audio]

The answer is: B) Getting individuals to talk about their ideal community is the Visioning Technique for building a shared vision.

#### Knowledge Check 8

True or False?

The community engagement tool “Photovoice” asks community members to take photos of things they wish to change and provide a short narrative to explain each photo.

- a) True
- b) False

I will pause for 10 seconds to give you a chance to select the correct answer.

[No audio]

The answer is: A) True. Photovoice has community members take pictures of things they wish to change and include a short narrative.

#### Knowledge Check 9

Select all that apply.

The ATSDR Action Model Toolkit is intended for use by

- a) Municipal agencies
- b) Environmental or health professionals
- c) Planners and developers
- d) Community members
- e) All the above groups who can use the action model to identify common goals or visions and ensure they are incorporated into the strategic planning for the land reuse site.

I will pause for 10 seconds to give you a chance to select the correct answer.

[No audio]

The answer is E) All of the above. Everyone can use the Action Model.

The post-test is optional but required for continuing education units. The direct link to take the post-test on CDC Train is on our training home page.

The suggested Reading Assignment for this training is:

Chapter 1 and 2 of the course textbook. You may also like Chapter 3 and its overview of community engagement tools. The book is posted with the course modules. It can also be downloaded from:

[https://www.atsdr.cdc.gov/land-reuse-health-program/media/pdfs/Brownfields\\_Toolkit\\_Developer-508.pdf](https://www.atsdr.cdc.gov/land-reuse-health-program/media/pdfs/Brownfields_Toolkit_Developer-508.pdf)

This is the end of the presentation for Module 1.

Thank you for attending. The EHLR training contact is [atsdr.landreuse@cdc.gov](mailto:atsdr.landreuse@cdc.gov)