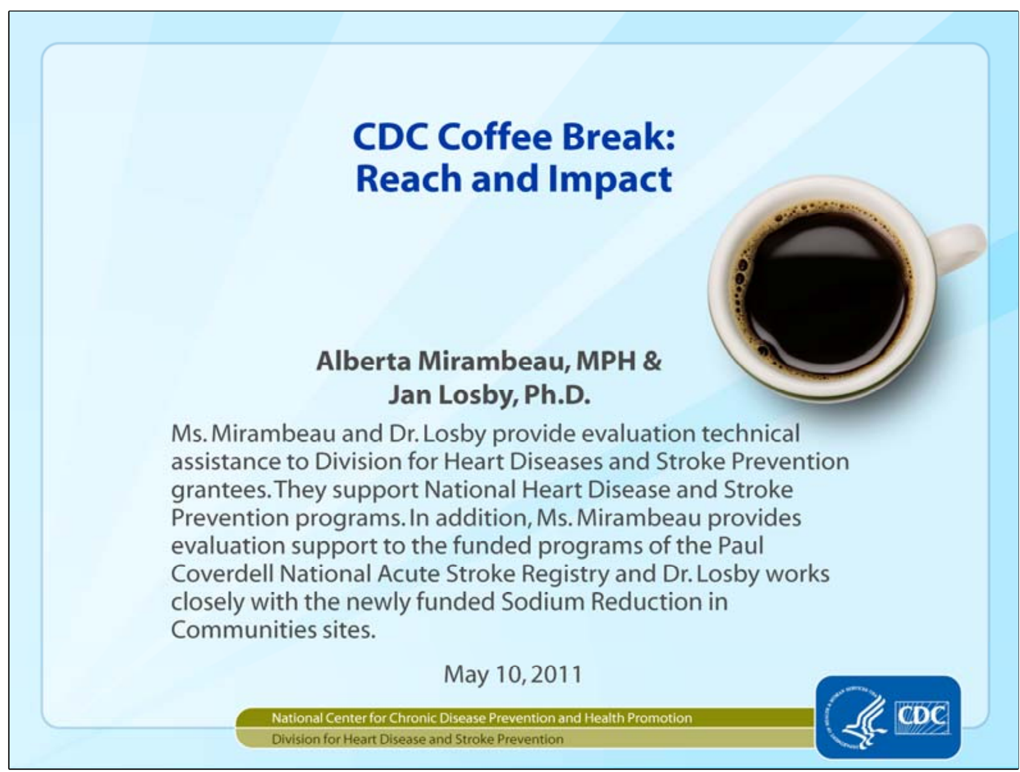



Welcome to today's Coffee Break presented by the Evaluation and Program Effectiveness Team in the Division for Heart Disease and Stroke Prevention at the Centers for Disease Control and Prevention.

We are fortunate to have Alberta Mirambeau and Jan Losby as today's presenters. Both Alberta and Jan are from CDC's Division for Heart Disease and Stroke Prevention and are evaluators on the Evaluation and Program Effectiveness Team.

*Note: Screen magnification settings may affect document appearance.

Disclaimer: The information presented here is for training purposes and reflects the views of the presenters. It does not necessarily represent the official position of the Centers for Disease Control and Prevention.

The information presented here is for training purposes and reflects the views of the presenters. It doesn't necessarily represent the official position of the Centers for Disease Control and Prevention. With that, let's get started with today's presentation by our first presenter, Alberta.

## Topics for Discussion

- Importance of measuring reach and impact
- Calculating reach
- Impact: levels of change
- Tips
- Resources

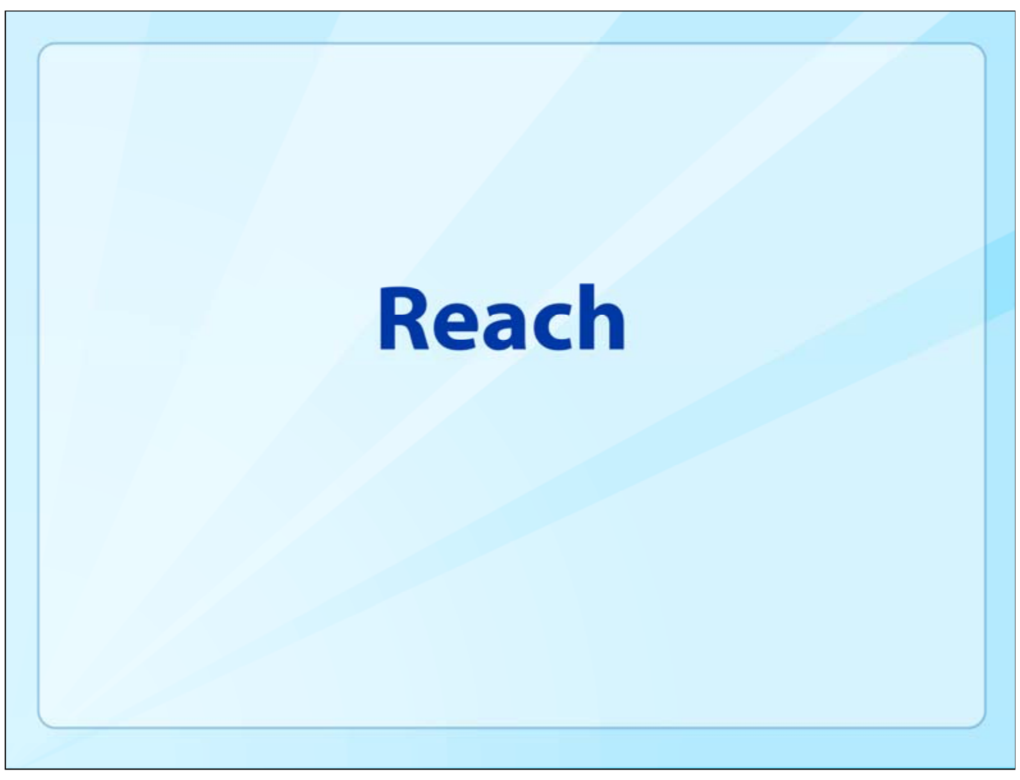
I'll get us started today just by sharing some of the highlights we'll be talking about today. I'll first start off by talking about the importance of measuring reach and impact and the benefits offered by these calculations. And then I'll spend some time on calculating reach by presenting a simple definition, offering some key considerations, and then sharing an example that ties all these ideas together. Jan will then talk about some concepts related to impact and then offer some tips and resources to help you define reach and impact for your intervention.

## Why Measure Reach and Impact?

- Management tool
- Demonstrate results
- Show accountability
- Present a national perspective
- *Elevator speech!*

So to get started, why are we measuring reach and impact? Although comprehensive evaluation is ideal, we recognize that with limited resources and capacity it is not always the most realistic approach. So at a minimum, it's encouraged that programs measure reach and impact. And there are a few reasons why it is helpful to measure reach and impact. First, it serves as a management tool. By measuring reach and impact, a program manager can monitor the progress of their program over time. It also helps to showcase the results of a program and communicate the outcomes that are being observed through measuring reach and impact.

And also accountability. I'm sure most of you recall that in recent weeks the nation watched as decision makers grappled with budgetary decisions, and I imagine that decisions may have been made based on a program's ability to demonstrate reach and impact. So by making statements of reach and impact, you can also show accountability. And for us at the Division, it really helps us to get a national perspective. By looking at the individual efforts of state programs we can better understand the reach and impact of the Division for HDSP. And if nothing else, it gives you that perfect elevator speech. So that you can quickly and concisely share with someone what your program is and what it's been able to accomplish.




Now, we'll start our conversation about calculating reach and some key considerations when doing so.

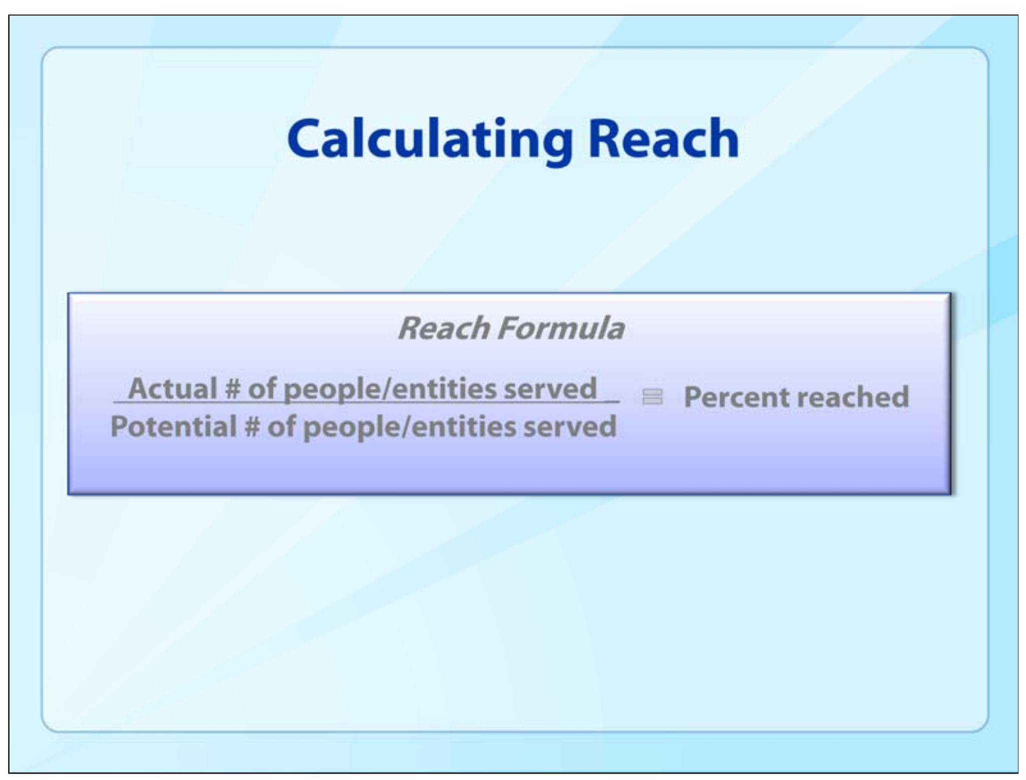
# Reach Defined…

…the **extent** to which a **program** attracts its **intended audience**

*Definition based on the work of: Basia et al.*

On this slide, I offer a very simple definition of reach, but I wanted to highlight three specific areas of this definition. The term "extent" here refers to the progress being made, and it's often represented by a proportion. I'll share a simple calculation for coming up with that proportion. And the word "program" is synonymous with the intervention or initiative that's being implemented. And then when we talk about "intended audience," we want to key in on "intended" because intended audience relates to the target audience and it's not the simply the entire universe in which you're trying to implement an intervention.

So these three key areas really help to highlight the underlying concepts behind reach.




On this slide, I want to go a step further about making statements of reach. It really comes to down to a calculation or a proportion. Here the numerator is represented by the actual number of people or entities served, and I'll talk a little bit more about what I mean by people or entities served. The denominator is represented by the potential number of people or entities served. And so this is within your sphere of influence and again it's not the entire universe. So take the time to carefully define these two elements when it comes to calculating reach, that way you can ensure that you'll have a more accurate percentage for the results reached.

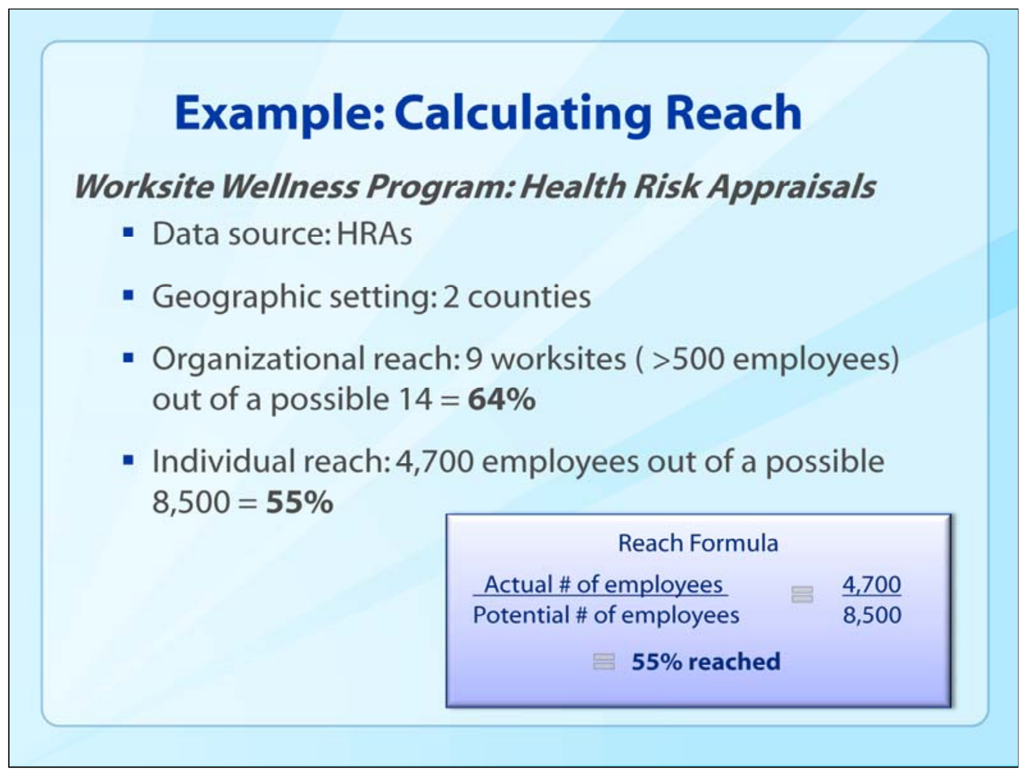
## Key Considerations: Calculating Reach

- **Multiple levels**
  - Organizational
  - Individual
- **Geographic area**
- **Access to data**
  - Does a data source exist?
  - Does a data source need to be established?

Here on this slide I wanted to point out three key areas that you should consider when it comes to coming up with your reach formula. First, you can view reach in a number of ways. You can look at it at the organization level or the individual level. And by organizational I mean, for instance, the setting. You can look at the number of worksites, the number of clinics, or the number of hospitals that are implementing your intervention or initiative. Or you can go a step further and actually look at the population that is being served within these settings. So if you're looking at a worksite, the number of employees within that worksite.

Also geography is important. By looking at the geographic area, it will help clarify the scope of your intervention. So as your intervention grows, say if you're starting in one county, two counties, maybe even statewide, so do the possible number that can be served. So take time to carefully define and clarify the numerator and denominator when calculating reach.

And we can't forget about data. Because when we're talking about calculation of reach, we're really talking about a way in which you can use data. So think about—does the data source already exist or does the data source need to be established in order to track the reach that's actually taking place?




And on this last slide discussing reach, I want to present an example. Here we have a worksite wellness program that's implementing health risk appraisals. The data source is health risk appraisals. And here for the geographic setting, we're going to limit it to two counties. And by limiting it to two counties we have an idea of what the possible number of worksites might be, or denominator. And notice the specificity that I've mentioned here is that the possible number of worksites is specific to more than 500 employees. The actual number of worksites that are implementing the HRAs is 9 worksites. And then if we go a step beyond and look at individual reach, we'll see that 4,700 employees are actually completing the HRAs out of a possible 8,500 employees that are reported to work at the 14 sites. This calculation demonstrates that you would have a 55% reach.

And I also want to add that now that you have access to health risk assessments, you are also one step closer to measuring impact. So I'll now hand over the virtual mike to Jan, so that she can discuss this topic further.

Now we are going to focus on Impact. Impact expresses why a program or intervention helps achieve public health goals.

A helpful way to think about impact can be to ask yourself: "The work we are doing is in pursuit of _______?" and then fill in the blank with the purpose or goal of your work—thinking as long-term as possible. So let's imagine you are providing blood pressure screening at a worksite; that is your particular intervention—screening services. The screening services are intended to do what? What do you hope to achieve? Hopefully over time there will be high blood pressure control for this employee population.

## Definition of Impact

**"The effect that interventions have on people, organizations, or systems to influence health."**

*Definition based on the work of: Jillcott et al. 2007*

As many of you may know, there is not one accepted definition of impact. As Alberta and I worked on the Tip Sheet for Reach and Impact, we had an interesting time arriving at a definition that captured the critical elements while conveying a fairly abstract concept in a straightforward manner.

We selected: "The effect that interventions have on people, organizations, or systems to influence health"

Definitions do vary by discipline and field. Impact answers the question "Did any change occur?" or what was the cumulative effect of programs over time on what they aim to change?

Before we leave this slide and our discussion of impact, I would like to clarify that we are not talking about an "impact evaluation" where you can claim attribution. In an impact evaluation you are proving causality through random assignment into control and treatment groups. That is not how we are using the term impact in today's discussion.

If you dialed into last month's coffee break given by our colleague Anne Almquist, you learned about the difference between attribution versus contribution.

## Determining Impact

- Define your goal for change.
- Identify a realistic level of change.
- Make it meaningful.
- Make it measurable.

There are many factors to consider when determining impact. On this slide a few of the most critical are listed.

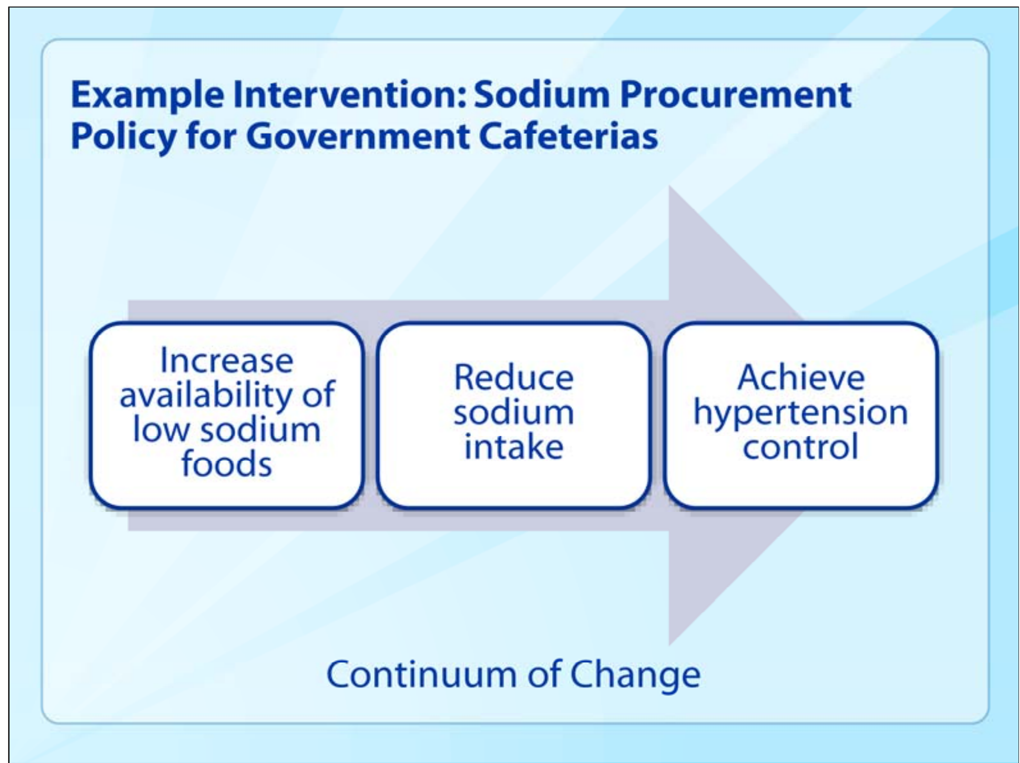
**First, define your goal for change.** When defining impact, make certain what you are expecting for your outcome fits with your intervention. This may seem pretty obvious—but it is always a good check.

**Second, identify a realistic level of change.** Impact expresses how the intervention helps achieve public health goals —ultimately by reducing morbidity and mortality. While the health outcomes of reducing morbidity and mortality are aligned with public health goals and stakeholder interests and should be reported where possible, they do take time to occur. Therefore, you may also need to consider demonstrating impact in terms of more immediate and practical change.

For example, impact can be expressed in shorter-term changes such as reducing the risk factors for hypertension and high cholesterol.

**Next, make it meaningful.** It is important to ask yourself if your stakeholders will accept your selected impact. Impact speaks to the value of your program.

**Finally, make it measurable.** Impact is concrete. Just as for measuring reach, data are a critical aspect of measuring impact.




Let's look at an example to help illustrate some of these key points. For this example let's pretend that you are working with all of the government agencies in your county to adopt a sodium procurement policy for cafeterias operating in government owned or leased facilities.

Moving from left to right you may define your impact along a continuum of change:

- Increase availability of low sodium foods (changing the food environment) through policy, systems or environmental change.
- Reduce sodium intake (behavioral change).
- Achieve hypertension control.

You may not have data now, but some day you might. In the meantime, what can you report to document impact? For this example, hopefully you can start reporting changes in related to the food environment—availability—and then move on from there.

## Tips for Measuring Reach and Impact

- Carefully define.
- Keep in mind your purpose and scope.
- Be mindful of data considerations.
- Document the full range of change.

Alberta and I would like to leave you with some tips for measuring reach and impact.

First, as you remember from Alberta's discussion at the start of this presentation, it is essential to carefully define your numerator and denominator for reach.

Second, keep in mind your purpose and scope—what are you trying to change and in what setting (i.e., worksite, health care, or community)?

Third, as both Alberta and I touched upon during our portions, you cannot talk about reach and impact without talking about data. When calculating reach and impact, ensure that your identified data sources are accessible. Data collection mechanisms can be monitored (if they already exist) or created (when feasible) to track progress.

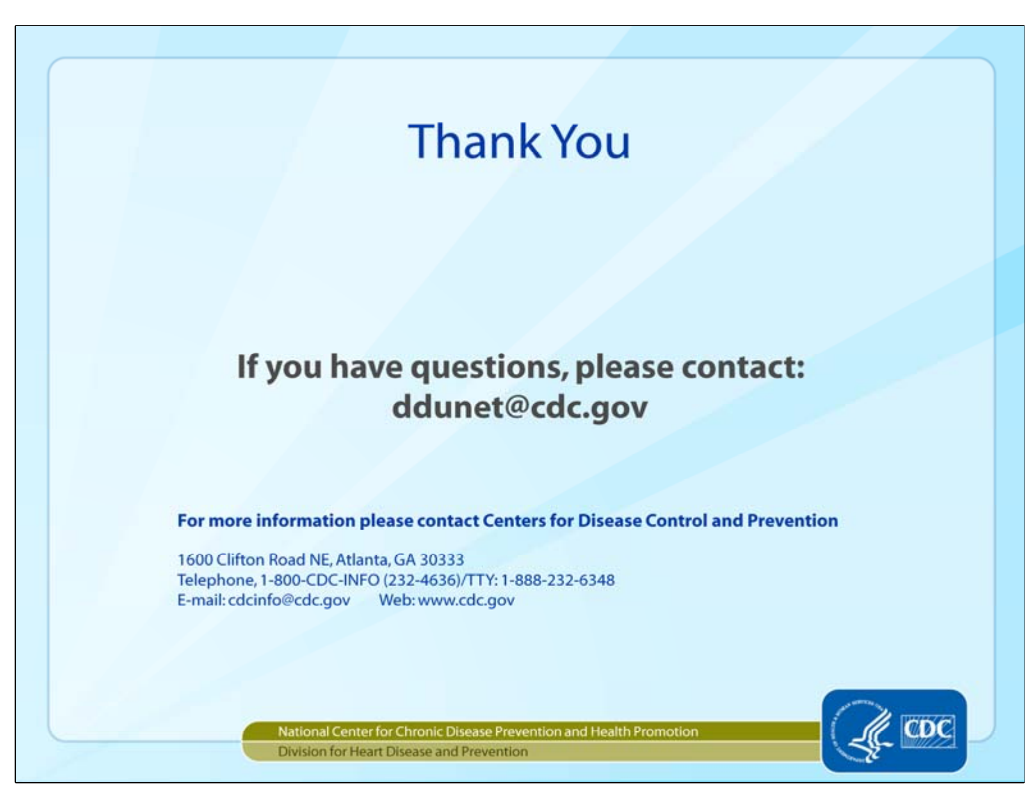
How will change over time be measured? Will multiple data collection points be necessary? Possible data sources may include electronic medical records, population-based surveys, or legislative tracking databases.

And lastly, as we saw from the impact example slide, it is important to document the full range of change for impact. While you may only have data to report immediate impact in terms of policy or systems change, do take steps—such as establishing data sharing agreements—to document the full range of change.

## Resources

- Mirambeau A & Losby J. (2011). Program Evaluation Tip Sheet: Reach and Impact. Available from: www.cdc.gov/DHDSP/programs/nhdsp_program/docs/Reach_Impact_Tip_Sheet.pdf
- Basia B, Toober D, Glasgow RE. Program Planning: Overview and Applications. National Council on Aging & Center for Healthy Aging. Available from: www.mipath.org/documents/Re-AimBrief_FINAL.pdf
- Jillcott S, Ammerman A, Sommers J, Glasgow RE. Applying the RE-AIM framework to assess the public health impact of policy change. *Ann Behav Med.* 2007 Oct; 34(2):105–14.
- Victorian Government Department of Human Services. *Measuring health promotion impacts: A guide to impact evaluation in integrated health promotion.* Melbourne, Australia: State of Victoria; 2003. Available from: www.health.vic.gov.au/healthpromotion/downloads/measuring_hp_impacts.pdf

On this slide, we have included some resources related to reach and impact for your reference. For anyone on this call who has not seen the two-page tip sheet on reach and impact, we have included a web link for that document.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