

# **CDC Evaluation Coffee Break: Evaluating Community-Clinical Linkages**

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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.

I am Aisha Tucker-Brown and I'm on the evaluation team here in the Division for Heart Disease and Stroke Prevention. I am serving as your moderator today. It is my pleasure to introduce the presenters, Rashon Lane from the Division for Heart Disease and Stroke Prevention and Bina Jayapaul-Philip from the Division of Diabetes Translation.

*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.*

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## Overview

- ❑ *This presentation will focus on assessing the process and implementation of community-clinical linkage interventions.*
- ❑ *The session will highlight evaluation examples from chronic disease prevention programs.*

On today's call, we will discuss evaluating community-clinical linkages, key components to consider in evaluating linkages, and evaluation examples from chronic disease programs.

*Just so you know...*

*Today's session is an introduction,  
not a "how-to" session.*

We chose to focus on this particular topic as a Coffee Break because “community-clinical linkages” is one of four domain areas in which CDC’s Center for Chronic Disease Prevention and Health Promotion works. Additionally, many grantees are either currently evaluating a community-clinical linkage or are looking to better understand how to evaluate these interventions. One word of caution, however: This coffee break presentation is a brief introduction to evaluating community-clinical linkages and is not a “how-to” training. At the end of the presentation, we will share some helpful resources for those interested in learning more about community-clinical linkage evaluations.

## *Community-Clinical Linkage Defined*

*“Community-clinical linkages are connections between community and clinical sectors to improve population health.”*

While there are varying definitions for community-clinical linkages, for the purpose of today's Coffee Break, we are defining community-clinical linkages as connections between community and clinical sectors to improve population health. This definition allows for flexibility for community-clinical linkage interventions to be applied to all public health areas and focus on the unique contribution that each sector brings to improving population health.

## *Community-Clinical Linkages*

- ❑ *Help ensure that people with or at high risk for chronic diseases have access to community resources and support to prevent, delay, or manage these conditions.*
- ❑ *Include interventions such as clinician referral, community delivery, and third-party payment for effective programs*
- ❑ *Increase the likelihood that people with chronic disease such as heart disease, diabetes or prediabetes, and arthritis are able to follow the doctor's orders and take charge of their health.*

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Here are a few things we know about community-clinical linkages.

1. They help ensure that people with or at high risk for chronic disease have access to community resources and support to prevent, delay, or manage these conditions.
2. They can include interventions such as clinician referral, community delivery, and third-party payment for effective programs.
3. They also increase the likelihood that people with chronic diseases such as heart disease, diabetes or prediabetes, and arthritis are able to follow the doctor's orders and take charge of their health.

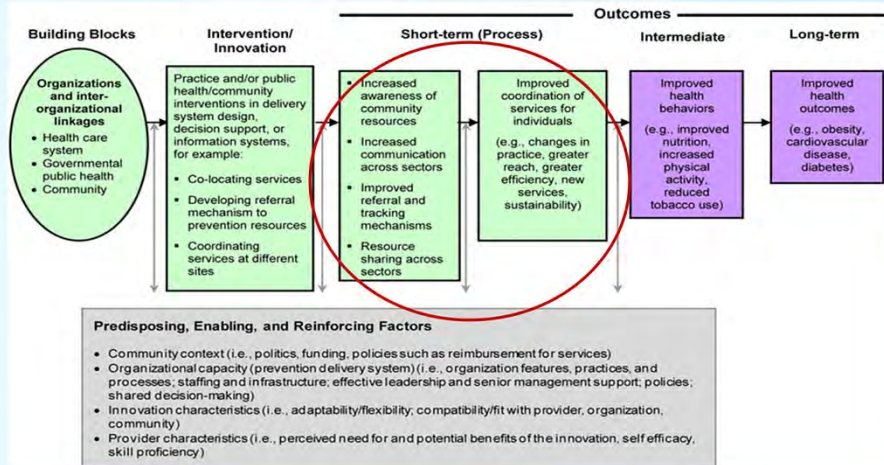
## **Example Community-Clinical Linkage Interventions**

- Community Health Worker Programs**
- Community Pharmacist Interventions**
- Smoking Cessation Quitlines**
- Chronic Disease Self-Management**

A few example community-clinical linkage interventions are:

- Community Health Worker Programs
- Community Pharmacist Interventions
- Smoking Cessation Quitlines
- Chronic Disease Self-Management

## Example Community-Clinical Linkages Framework



Source: Agency for Healthcare Research and Quality (AHRQ). (Prepared by Porterfield D, Hinnant L, Kane H, et al.). *Linkages Between Clinical Practices and Community Organizations for Prevention: Final Report*. 2010.

On this slide we highlight an example community-clinical linkages framework from the Agency for Healthcare Research and Quality (AHRQ) from their report, *Linkages Between Clinical Practices and Community Organizations for Prevention*.

In the framework, the short-term processes highlighted represent several linkages that link community interventions and innovations to improved outcomes. These short-term outcomes will help you to better understand exactly where in the continuum of community-clinical intervention you should evaluate.



## Evaluating Community-Clinical Linkages

### Focus on the linkage

- Improving coordination systems
- Improved referral and tracking mechanisms
- Resource-sharing across sectors



The primary focus of a community-clinical linkage evaluation should be on how effective the linkage between the clinical-level intervention and the community-level intervention was in achieving the desired health outcome. In evaluating the “linkage,” the evaluation outcomes might focus on processes such as health care system changes, referral processes, and sharing and reporting of data, with the expectation that some of these example outcomes will lead to improved quality systems of care (e.g. implementation of clinical algorithms), increased medication adherence, and reporting of quality clinical outcomes. Additional outcomes that might be included in a community-clinical linkage evaluation include quality improvement processes of the health care system, cost savings, and behavior change.

## Engaging Stakeholders

### *Key Questions*

- ▣ *How do clinical and community sectors communicate?*
- ▣ *How does each sector view evaluation?*



Engaging stakeholders is a critical component of a community-clinical linkage evaluation. During this step, evaluators and programmatic staff should partner with stakeholders from both the clinical and community settings to establish agreements on goals, activities, and outcomes of the intervention. This process should occur prior to the beginning of the intervention.

Stakeholder engagement helps to ensure that all stakeholders understand what activities and outcomes they are responsible for and should facilitate a discussion on what evaluation data are available to monitor and assess progress.

Evaluation data will be collected separately in both the community and clinical settings. It is important, however, to think holistically on how the two entities will work together to achieve health outcomes. Stakeholders from the clinical and community settings might have different organizational cultures and might have differences in how they view the evaluation. Thus, varied strategies for engaging stakeholders in the evaluation might be employed. For example, some community-level stakeholders might prefer to use a participatory-based approach to evaluation and might be more familiar with developing logic models; whereas clinical stakeholders might have more of a strength in analyzing and reporting clinical outcome data. During the “Engaging Stakeholders” phase, conduct an informal assessment of how and when each partner should be engaged in the planning and implementation phase of the evaluation.

Here are a couple questions that you might consider before engaging stakeholders:

- How do clinical and community sectors communicate?
- How does each sector view evaluation?

## *Accessing Data*

- ❑ *Establish necessary data agreements early*
- ❑ *Data sharing between the community and clinical sectors*
- ❑ *Determine resources needed to collect data*

One area to consider is how you will access data. You should allocate as much time as possible since the negotiations for developing data agreements might take time, especially between a community organization and a large health care system. Depending on how complex an organization is or the levels of approval needed for a particular type of dataset, it will be important to establish the data agreements well before data collection is under way. Having data agreements in place clarifies how the information may be shared and used. The extent to which data are accessible will undoubtedly impact the feasibility and rigor of your evaluation plans. The data agreement will also help preserve data sharing and use over time regardless of staff turnover in an organization.

Various levels of personnel and financial resources will be needed to conduct a community-clinical linkage evaluation. Prior to starting the evaluation, try to determine how much staff allocation and financial support will be needed to evaluate the project.

## Managing Data Collection

- ❑ *Multiple settings and levels of data*
- ❑ *Primary data collection vs. secondary data collection*
- ❑ *Interpreting data from multiple sources*
- ❑ *Disseminating findings across sectors*

When managing data collection, it is important to consider the various levels of data that you might need to collect across settings. For example, data collected within a health care system might include quantitative clinical data on hypertension or diabetes control, whereas community-level data might include qualitative data from community health workers that are integrated within a health care system.

Also when conducting a community-clinical linkage evaluation, consider if primary data collection is needed or if secondary data is available for analysis. This will reduce the burden of primary data collection such as implementing surveys.

One area that you really want to consider is disseminating the findings between the community and clinical sectors. This is key in how both sectors will engage with one another and how they will use the findings.

## CHW Evaluation Example

Community-Clinical Linkages CHW Intervention	Short-Term Outcome	Intermediate- Term Outcome	Long-Term Outcome
<i>Increase engagement of community health workers (CHWs) in the provision of self-management programs and ongoing support for adults with high blood pressure and adults with diabetes</i>	<i>Recognized/ accredited DSME programs in targeted settings use CHWs in the delivery of education/services</i>	<i>Adults with high blood pressure and/or diabetes adhere to medication regimens</i>  <i>Patients with high blood pressure and/or diabetes have a self-management plan</i>	<i>Decreased proportion of people with diabetes with A1C &gt;9</i>

Here is an example of a community health worker intervention under community-clinical linkages. The intervention is to engage CHWs in the provision of self-management programs and to provide ongoing support for people with diabetes post self-management program.

As a result of the intervention, diabetes self-management education programs in the target settings engage CHWs to deliver the programs and to provide support for patients. Subsequently, more patients with diabetes who enroll in the self-management programs and complete them adhere to their medication regimens and have a self-management plan. In the long term, these patients are able to control their numbers and fewer people have uncontrolled diabetes or an A1C greater than 9.

**EVALUATION**

- **Performance Measure**  
*Proportion of recognized/accredited DSME programs in targeted settings using CHWs in the delivery of education/services*
- **Data Source**
  - Program records
  - ADA-recognized programs by ZIP code or state:  
[http://professional.diabetes.org/erp\\_zip\\_search.aspx](http://professional.diabetes.org/erp_zip_search.aspx)
  - AADE-accredited programs by state:  
<http://www.diabeteseducator.org/ProfessionalResources/accred/Programs.html>
  - Licensed Stanford Diabetes Self-Management Program sites:  
<http://patienteducation.stanford.edu/organ/dsmbsites.html>
- **Data Collection Method**
  - Surveys to program sites

**Issues to Consider**

- Entity responsible to implement surveys and method
- Survey development
- Time frame for data collection
- Costs associated with gathering data
- Analysis Plan

Let's walk through the evaluation process for this strategy or intervention.

The performance measure is the proportion of recognized DSME programs in targeted settings that are using CHWs in the delivery of education and/or related services.

The data source for gathering this information is the ADA, AADE, or Stanford DSMP program sites.

Surveys could be used to gather the data from the program sites to identify how many are using CHWs, reasons for not engaging them, which could include lack of reimbursement, difficulties related to hiring, etc. Data could also show successes and strategies used by programs currently engaging CHWs.

Some issues to consider related to data collection include developing, identifying, or adapting a survey instrument; determining items needed; determining the entity or person responsible for implementing the survey; the time frame for data collection; any associated costs; and a plan for analysis, which might be a combination of quantitative and qualitative analysis.

CHW Evaluation Example	
Short-Term Outcomes	Example Evaluation Question
Recognized/accredited DSME programs in targeted settings use CHWs in the delivery of education/services	<p>How has the state promoted the use of CHWs in DSME programs? What were the facilitators, and what were the barriers and how were they overcome?</p> <p>Responses would focus on state activities to promote the use of CHWs in DSME programs.</p>

Let's talk through a possible evaluation question for this intervention. The evaluation question is "How has the state promoted the use of CHWs in DSME programs? What were the facilitators, and what were the barriers and how were they overcome?"

Depending on the results of initial assessment and surveys, states would focus on the activities that they undertook to promote the use of CHWs. For example, if the lack of a financing mechanism to reimburse services of CHWs is identified as a barrier, the state might report its activities to identify a financing mechanism and report successes related to those efforts and how this is addressing or will address the barrier of lack of reimbursement.

Addressing this evaluation question may focus on issues like CHW training or certification processes in the state if those were the activities the state undertook to promote the use of CHWs in DSME programs.

<b>Evaluation Question</b>	<b>Performance Measure</b>	<b>Data Source</b>	<b>Data Collection Method</b>	<b>Issues to Consider</b>
<i>What policies/systems facilitated the support and promotion of the increased use of CHWs in self-management programs?</i>	<i>Proportion of patients encountered by CHWs who were connected to self-management programs</i>	<i>Electronic health records. (Computerized support system may be developed to collect patient data; track patient calls, dates of service, and clinician feedback; and guide the CHW.)</i>	<i>Review of EHRs</i>	<i>Arrangement with health system to get reports from EHR review Type of agreement needed Time frame for data collection Resources needed for data sharing</i>

On this next slide is another possible evaluation question related to this intervention and a suggested performance measure, data source, collection method, and issues to consider. Here the narrative might focus on processes set up by health systems for CHWs to access patient EHRs and subsequent ability to follow up with patients to enroll them in DSME programs and provide ongoing support.



## *Summary Key Messages*

*Focus on the Linkage!*

- Establish relationships with both community and clinical partners*
- Ensure that data to evaluate the linkage is available*
- Manage data collection across multiple settings*
- Share evaluation findings between sectors*

In summary, when evaluating community-clinical linkages, focus on the linkage between the community and clinical partners.

- Establish relationships between both community and clinical partners
- Ensure that data to evaluate the linkage is available
- Manage data collection across multiple settings
- Share evaluation findings between sectors

## *References and Resources*

1. *Agency for Healthcare Research and Quality (AHRQ). (2010). (Prepared by Porterfield D, Hinnant L, Kane H, et al.). Linkages Between Clinical Practices and Community Organizations for Prevention: Final Report.*  
[http://www.innovations.ahrq.gov/Linkages\\_Report.pdf](http://www.innovations.ahrq.gov/Linkages_Report.pdf)
2. *Washington University. (2008). Tools for Building Clinic-Community Partnerships to Support Chronic Disease Control and Prevention.*  
<http://www.diabetesinitiative.org/support/partnershipTools.html>

Here are a couple resources you might use in looking at the evaluation of community-clinical linkages.

## *We'd like to hear from you...*

- *Questions and Answers*
- *Short Poll Questions*



**Question 1:** What recommendations would be helpful for state health departments that are having difficulty getting their clinical and community sectors to collaborate on their evaluation?

**Response:** One thing is to engage and bring both the community and clinical partners to the table early so they have a good understanding of what the purpose and the intent of the evaluation is. I think that will help in understanding what their role is in the evaluation and what they have to gain from the evaluation. One exercise that we briefly mentioned earlier was development of the logic model, and I think that that's a good way to bring everyone around the table so that there's a clear understanding of the evaluation goals and outcomes and where they fit in, bridging that gap between the community and clinical sectors.

**Question 2:** As they're moving forward with that evaluation and collecting that data, what are strategies for how to triangulate data when looking at both the community and clinical sectors?

**Response:** One thing you want to consider is that you might be collecting multiple levels of data, so some data might be quantitative whereas others might be qualitative. So one area that you want to consider is how both data collections might play from one another. So you might use some of the community-level data to really reinforce some of the processes and how the facilitators and barriers work at that level; you might use some of the survey data or other clinical data to understand if those processes can be improved based on the linkages. So I think the multiple data sources really help to reveal how the linkage works and to what extent that can be improved.

## *Reminders!*

*New Time for coffee break sessions:*

**2:30 pm (ET)**

*All sessions are archived and  
can be accessed on-demand at:*

**<http://www.cdc.gov/dhdsp/pubs/podcasts.htm>**

*If you have any questions, comments, or topic ideas  
send an email to:*

**[AREBheartinfo@cdc.gov](mailto:AREBheartinfo@cdc.gov)**

If you have any ideas for future topics or questions, please contact us at  
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