

PARTICIPANT GUIDE/CASE STUDY



Evaluating Public Health Programs

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Evaluating Public Health Programs Case Study: Hypertension

OVERVIEW

In this case study, participants will engage in the six steps of the CDC Framework for Program Evaluation: (1) engage stakeholders; (2) describe the program or project; (3) focus the evaluation design; (4) gather credible evidence; (5) justify and state conclusions; and (6) ensure use of evaluation and share lessons learned. The total amount of time for this case study is estimated at approximately 5 hours (3 hours to complete the activities and an additional 2 hours to review answers)¹. The time allotment per section varies, and is listed at the beginning of each step. Please allow additional time for discussion of each step.

Please note: While this case study was inspired by real data, the people and events described in this case study are fictitious. This exercise is intended for educational purposes only.

BACKGROUND: PART I

A number of studies have reported the increasing prevalence rates of hypertension among adults in Country X over the past 30 years. This increase in hypertension has also been marked by a significant increase in reported prevalence rates of cardiovascular diseases. In response, the Country X Centers for Disease Control and Prevention (XCDC) of the Country X Ministry of Health funded the health bureau of City Y to deliver a hypertension self-management program for adults aged 35 and older with uncontrolled high blood pressure ($\geq 140/90$ mmHg). This evidence-based community intervention helps patients take responsibility for managing their hypertension with assistance from health care professionals, and support from families and the community.

The XCDC was the lead agency for the development, implementation and evaluation of the hypertension self-management program. The City Y Health Bureau implemented the program and was responsible for coordinating and communicating the program's goals and objectives with interested parties such as neighborhood groups and community health center physicians. To ensure a successful and collaborative process, the City Y Health Bureau convened multiple stakeholders from different levels – health care, community, and patient – to plan the implementation and evaluation of the self-management program.

¹ Assumes four small working groups. Review time may take longer if there are more than four groups.

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In the initial phases of the program planning, the City Y Health Bureau identified and recruited stakeholders through health center flyers, cardiovascular health care newsletters, by word of mouth, and announcements at neighborhood group meetings.

The City Y Health Bureau invested significant time meeting with stakeholders to appreciate their concerns about implementing the program. They relied on formal and informal communication to ensure all perspectives were understood.

After the program began, new stakeholders became involved, including a pharmaceutical company and representatives of the government health care insurance system. These stakeholders were concerned with health care costs associated with medications and hypertension screening. These interests were important to the project; therefore, X CDC and City Y Health Bureau updated the program plan and focused the evaluation to include these views.

As these stakeholders met and shared their ideas, the following concerns emerged:

Table 1: Stakeholder Interests

Early Stakeholders	What Stakeholders Cared About Most
Family members of patients with hypertension	Providing needed support to family members with hypertension
Patients with hypertension	Increasing self-efficacy and strengthening support systems to self-manage hypertension on a daily basis
City Y Health Bureau	Preventing and controlling hypertension among residents
Country X Ministry of Health	Promoting national level policies that prevent cardiovascular disease and risk factors
Country X Center for Disease Control and Prevention	Promoting national level policies that prevent cardiovascular disease and risk factors Preventing and controlling hypertension among the population
Community health center administrators	Improving use of resources spent to prevent and control hypertension; training and building capacity of physicians and

Early Stakeholders	What Stakeholders Cared About Most
	other health professionals regarding the hypertension self-management model
Community physicians (at community health centers)	Preventing and controlling hypertension among patients
Country X Hypertension League	Supporting practical work and scientific activities regarding hypertension and related diseases
Country X Pharmaceutical Association	Providing medication adherence counseling training to pharmacists through continuing education programs
Government health care insurance companies	Controlling associated health care costs
Neighborhood groups	Developing environmental and social supports in the community for people with hypertension

Answer the following questions for Step 1 only. (40 minutes, including reading of previous pages)

Step 1: Engage Stakeholders

1. Identify the stakeholders for whom you will involve in a program evaluation. Consider the **Utility** standard when filling out the three columns in the table below. In particular, think about:
 - Who will use the results of the evaluation?
 - Who can influence the use of the findings?

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Persons involved in program operations	Persons served or affected by the program	Primary users of the evaluation results

2. Refer to your completed table (question 1) and answer the following questions. **Who among the stakeholders will**

a. Enhance credibility of the program:

b. Implement the program changes:

c. Advocate for changes:

d. Fund, authorize, or expand the program:

3. Complete the table below as follows:

a. List one stakeholder from question 1 from each of the categories (person involved in program operations, person served or affected by the program, primary user of evaluation results).

b. Describe how to engage each stakeholder in the evaluation process.

c. Describe a reasonable time commitment for each stakeholder's involvement (e.g., quarterly meetings, weekly phone calls).

Types of Stakeholders	Stakeholder	How to Engage Stakeholder	Reasonable Time Commitment

Answer the following questions for Step 2 only. (1 hour)

Step 2: Describe the Program

Read the information below about the program goals and objectives. Then answer the questions that follow.

BACKGROUND: PART II

Statement of Need (Statement of the problem): Hypertension is a major risk for cardiovascular disease. Prevalence of hypertension ($\geq 140/90$ mmHg) was 39% among residents aged 35 and older. A high percentage of patients with hypertension were unaware of their condition, lacked access to proper and consistent treatment, and had uncontrolled hypertension.

Goal: Reduce the proportion of adults with high blood pressure.

Objective: After 5 years of implementation, demonstrate a 25% increase in the proportion of patients with diagnosed hypertension at participating community health centers with blood pressure under control ($< 140/90$ mmHg).

Program Description: Through a participatory planning process, the group of stakeholders developed a long-term plan to successfully implement and evaluate the self-management intervention in City Y to achieve this broad goal and objective. Components of the intervention can be described at three levels: health care, individual/patient, and community. A comprehensive approach would address each of these three levels.

- **Health Care:** Within the community health care system and among physicians, the self-management model promoted comprehensive systems to support patient self-management, which included physician telephone follow-up, linkages to home blood pressure monitoring, and pharmacists trained to provide self-management support and counseling. Additionally, community

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health centers may establish policies to increase patient adherence with treatment, including medication and lifestyle changes.

- **Individual/Patient:** Another component of the intervention is self-management training of patients with hypertension. Patients were referred to the training by a staff member of a participating community health center in City Y. Over a six week period, there is a total of 12 hours of training (2-hours weekly). The primary objective of the training was to increase patients' confidence to control their blood pressure. This was achieved by participants' mastery of the essential skills for hypertension management including improved diet, increased exercise, smoking cessation, self-control and effective communication skills, awareness of community resources and treatment options, and improved medication adherence and blood pressure self-monitoring.
- **Community:** Some of the intervention activities at the community level included establishing more collaborative partnerships and linkages between community health centers and other community resources; availability of community-based hypertension monitoring stations; conducting informational media campaigns; and making changes to the environment that encourage living a healthy lifestyle.

1. Based on the background information, identify and list the following elements of the project on the table below **OR** as a logic model on the following page (or a flip chart):

- A minimum of three inputs
- A minimum of three activities
- A minimum of three outputs
- A minimum of one short-term outcome, one intermediate outcome, and one long-term outcome

Inputs	Activities	Outputs	Outcomes

Space for Logic Model

Inputs	Activities	Outputs	Short-term Outcomes	Intermediate Outcomes	Long-term Outcome

Answer the following questions for Step 3 only.

Step 3: Focus the Evaluation

Read the background information below about the request for an evaluation. Then answer the questions that follow.

BACKGROUND: PART III

The City Y Health Bureau implemented this hypertension self-management model training program in one community health center. During the first year of implementation, the bureau wanted to find out whether the program was implemented as planned (this is a process measure) and whether the program had increased participants' confidence to control their blood pressure (refer to the short-term outcome from the logic model).

Before offering this program at other community health centers, the participating community health center director and surrounding community health centers wanted to learn from the evaluation whether the training program was effective, and make any necessary improvements.

1. What is the purpose of this evaluation, as described in the text above? Please circle all that apply.
 - a. Show accountability
 - b. Examine program implementation
 - c. Determine program improvement
 - d. Facilitate judgment about a program's fate

2. Consider the purposes of the evaluation. What type of evaluation is this? *Please circle your answer.*
 - a. Process evaluation
 - b. Outcome evaluation
 - c. Both process and outcome evaluation

3. Who are the users for this evaluation?

4. What is the use for this evaluation? Write a brief description.

5. Based on the utility and feasibility standards, is what you are being asked to evaluate a reasonable request? Yes or no? Please explain. If you answered no, what *can* you evaluate that is related to the request?

6. Based on your responses to the above questions, please give a minimum of two examples of process and outcome evaluation questions you would need to ask.

Answer the following questions for Step 4 only. (20 minutes)

Step 4: Gather Credible Evidence

1. Record two evaluation questions you identified in Step 3 in the first column of the table below.
2. Identify and list indicators for each question in the second column.
3. Identify and list the data sources or methods you will use to collect data about the indicators in the third column. Select ones that can enhance the credibility of the data with stakeholders.

Evaluation Question	Indicators	Data Sources / Methods

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Evaluation Question	Indicators	Data Sources / Methods

Answer the following questions for Step 5 only. (20 minutes)

Step 5: Justify conclusions

Read the background information below about the findings from the evaluation. Then answer the questions that follow.

BACKGROUND: PART IV

The main objective of the self-management program is to demonstrate a 25% increase in the proportion of patients with diagnosed hypertension at participating community health centers with blood pressure under control. Twelve months after the start of the program, the interim evaluation findings indicated an 11% increase among participating patients. It was discovered that all of the participating community health centers adopted systems-level changes within their healthcare delivery system to promote patient self-management. However not all of the sites adopted a comprehensive self-management model.*

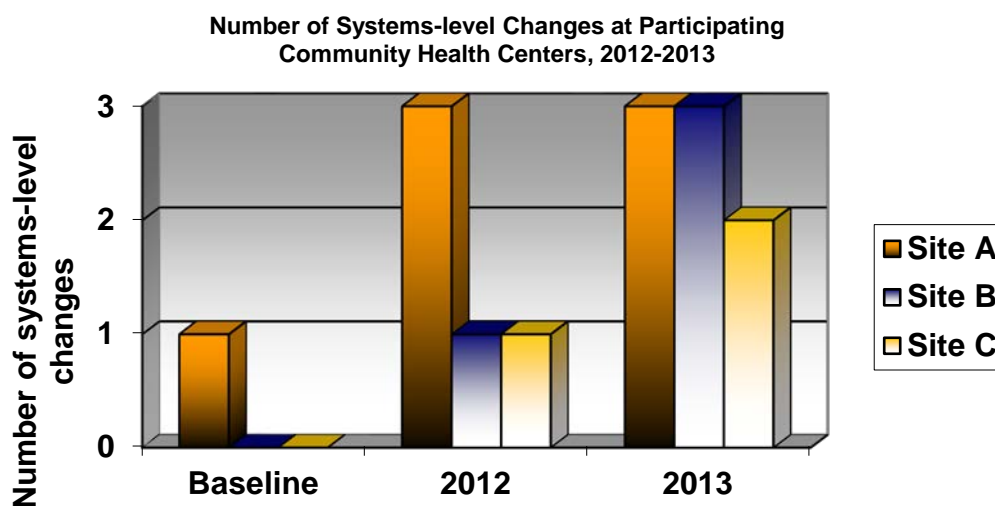
Figure 3 illustrates data collected over the two year period summarizing the number of community health centers in City Y with policy or systems-level changes to encourage patient self-management of hypertension. It was noted that Site A experienced the highest level of participation in the self-management training sessions among their patients.

Findings also indicated a significant increase in patients' awareness and knowledge of chronic disease related risk factors. An increase in patient self-management ability was determined by a 15% increase in the number of patients who do self-monitoring of blood pressure and a 20% increase in the number of patients who regularly receive counseling and support from a pharmacist.

Participation in regular exercise also increased by 12%. Additionally, the evaluation documented an improvement in adherence to medication regimens and community environmental changes such as increasing access to safe and free physical activity facilities. These changes were viewed by stakeholders as positive outcomes resulting from the program.

*Sites with comprehensive self-management models addressed all 3 levels of the intervention—health care, individual/patient, and community (see “Program Description” in Step 2).

.Figure 2: Graph of Changes in Health Centers



1. Identify at least two evaluation results and write a corresponding recommendation for each evaluation result in the space below.

2. Refer to your recommendations from the previous question, and consider the four standards for evaluation. Then complete the following table and justify your answers.

Question	Answer Yes	Answer No	Justification
Utility: Have different interpretations of the findings been considered?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Feasibility: Are the recommendations realistic for the program to implement?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Propriety: Are the conclusions and recommendations reflective and respectful of key stakeholders, including those served by the program?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Accuracy: Can the conclusions be explicitly justified?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Answer the following questions for Step 6 only. (20 minutes)

Step 6: Ensure Use of Evaluation

1. Describe various methods for communicating the evaluation findings:

2. In the table below, list the two stakeholders you identified in question 1 and then complete the remaining columns with regards to communicating the evaluation results to each stakeholder.

Stakeholder	What to Communicate	Method of Communication	Frequency

3. What will you do to make sure that the evaluation is reported in a manner that encourages follow-through by the stakeholders?