

# Diabetes Care Quality Improvement: A Workbook for State Action

Prepared by  
Barbara Kass, M.P.H.

Department of Health and Human Services  
Agency for Healthcare Research and Quality  
Rockville, Maryland  
*[www.ahrq.gov](http://www.ahrq.gov)*

AHRQ Publication No. 04-0073  
September 2004

## Acknowledgment

This document has been prepared to be used in conjunction with *Diabetes Care Quality Improvement: A Resource Guide for State Action*. The author acknowledges the authors of that report—Rosanna M. Coffey and Kelly McDermott, The Medstat Group, and Trudi L. Matthews, The Council of State Governments—for their contributions to this *Workbook*.

---

This document is in the public domain and may be used and reprinted without permission. AHRQ appreciates citation as to source, and the suggested format is provided below:

Kass B. *Diabetes Care Quality Improvement: A Workbook for State Action*. Rockville, MD: Agency for Healthcare Research and Quality, Department of Health and Human Services; September 2004. AHRQ Pub. No. 04-0073.

## Foreword

*Diabetes Care Quality Improvement: A Workbook for State Action* and its complementary *Resource Guide* were developed by the Agency for Healthcare Research and Quality (AHRQ) as learning tools for all State officials who want to improve the quality of health care. In conjunction with the *Resource Guide*, which uses State-level data on diabetes care from the 2003 *National Healthcare Quality Report*, this *Workbook* is designed to help States assess the quality of care in their States and fashion quality improvement strategies suited to State conditions.

Many people for whom these learning tools were intended—State elected and appointed leaders as well as officials in State health departments, Diabetes Prevention and Control Programs, Medicaid offices, and elsewhere—provided comments and feedback throughout the development and finalization process. From this process, we learned that they intend to use the *Workbook* and *Resource Guide* in many different ways: to assess their current structure and status, to create new quality improvement programs, to build upon existing programs, as an orientation for new staff, and to share with their partners such as the American Diabetes Association.

The *Workbook* and *Resource Guide* can serve as a meeting place, where the creative minds of those who struggle with quality improvement can share their expertise, ideas, knowledge, and solutions. The various modules are intended for different users. Senior leaders are responsible for making the case for diabetes quality improvement and taking action (Modules 1, 4, and 6) while program staff would need to provide the information necessary to develop and implement a quality improvement strategy (Modules 2, 3, and 5). The goal, of course, is that all groups of people work on these modules as a team. It is within those discussions and sharing and working together that we hope to achieve what we set out to do: help States improve the quality of diabetes care.

If you have any comments or questions on this *Workbook* or its complementary *Resource Guide*, please contact AHRQ's Center for Quality Improvement and Patient Safety, 540 Gaither Road, Suite 3000, Rockville, MD 20850.

# Contents

Foreword .....	iii
Introduction .....	1
Module 1: Background—Making the Case for Diabetes Care Quality Improvement .....	5
Module 2: Data—Understanding the Foundation of Quality Improvement....	10
Module 3: Information—Interpreting State Estimates of Diabetes Quality... ..	18
Module 4: Action—Learning From Activities Currently Underway... ..	24
Module 5: Improvement—Developing a Strategy for Diabetes Quality Improvement... ..	31
Module 6: The Way Forward—Promoting Quality Improvement in the States .....	36
A Final Note.....	38

## Introduction

Extensive gaps in health care exist between the care that is recommended and the care that patients actually receive. Sometimes, the care that is delivered to patients does not meet the accepted standards of quality. As a result, people suffer from medical complications that can be prevented, hospitalizations that could be avoided, decreased quality of life, disability, and premature death.

The Agency for Healthcare Research and Quality (AHRQ) is the lead Federal agency supporting research into the quality, cost effectiveness, and safety of health care. In 2003, AHRQ released the first ever *National Healthcare Quality Report* (NHQR) and *National Healthcare Disparities Report* (NHDR). These reports, mandated by Congress, collected and analyzed national and, where available, State-level data from a variety of reliable sources to measure the state of health care quality and health disparities in the Nation.

The data in the NHQR and NHDR demonstrate that the gap between health care research and practice is not just an occasional occurrence, but is pervasive throughout health care. It affects all patient groups, even those with the most common medical conditions, and every State. Both reports also called for health policy leaders and health care professionals to consider ways to improve the quality of care in the United States and take action to deal with the persistent and costly gaps in health care quality.

Ultimately, quality improvement occurs at the frontline of health care between professionals supplying care and consumers requesting it. State leaders can be catalysts for changes in health care by supporting and encouraging quality improvement to improve health outcomes, reduce the burden of disease, and increase the efficiency of the health care system. States can champion quality improvement and institute best practices that can transform health care systems.

## Diabetes Care Quality Improvement: Resources for State Action

AHRQ has published two resources for diabetes care quality improvement to assist State policymakers and health care leaders in leading and planning quality improvement initiatives in their States:

- *Diabetes Care Quality Improvement: A Resource Guide for State Action* delivers a wealth of information and details for a wide audience of participants in a State's quality improvement processes. This audience ranges from leaders of health policy at all levels to sophisticated analysts of data and information. The *Resource Guide* is a reference book that for some will be consulted as needed on specific topics and for others will be read completely for in-depth knowledge.
- A companion to the *Resource Guide*, *Diabetes Care Quality Improvement: A Workbook for State Action* presents exercises for State leaders to review to acquire the key skills and lessons from the *Resource Guide* for use in instituting health care quality improvement in their State. This *Workbook* directs readers to specific sections of the

*Resource Guide* and then walks them through issues that they need to consider to determine how to provide effective leadership for quality improvement. The exercises focus the reader on their State in comparison to the Nation and other State experiences.

The *Resource Guide* and this *Workbook* are tools State leaders can use in conjunction with the NHQR and NHDR to meet the challenge of improving the quality of care in America.

## **Why Diabetes?**

About 6.3 percent of the U.S. population is estimated to have diabetes.<sup>1</sup> It is a costly medical condition, not only in dollars, but also in physical well-being. For individuals with diabetes, the average medical costs are \$13,000 per year compared to \$2,500 per year for the average patient without diabetes.<sup>2</sup> The death rate from diabetes makes it the Nation's sixth leading killer.<sup>1</sup> There is a long list of complications from diabetes such as heart disease, hypertension, stroke, leg and foot ulcers, lower-limb amputation, blindness, kidney disease, and coma and death.<sup>1</sup> Many of these complications and deaths from diabetes can be prevented or delayed with proven interventions.

## **Aim and Scope of This *Workbook***

This *Workbook* aims to help State leaders develop a strategy to improve diabetes care quality. It will take users through a series of written exercises that will help them begin to think about an effective partnership for an initiative, assembly of available data for their State, questions to raise about interpretation of the data, and quality improvement techniques to enlist to develop a strategy to improve diabetes care quality. It will also help them navigate the details of the *Resource Guide*.

Upon completion of the *Workbook*, State leaders will be able to:

- Recite the factors that affect the quality of care for diabetes.
- Understand the key issues surrounding diabetes quality improvement.
- Assess their States' performance in providing diabetes care.
- Identify national, public-private, Federal, State, and local resources and best practices in diabetes quality improvement.
- Assemble and analyze State-specific data about diabetes and health care quality to begin planning a quality improvement strategy.
- Identify opportunities to contribute to improving diabetes care quality.

There are several measures of health care that indicate whether or not people with diabetes are receiving appropriate care. The scope of this *Workbook* encompasses four of those measures which are recommended by clinical guidelines:

- Percent of adults with diabetes who had a hemoglobin A1c (HbA1c) measurement at least once in the past year. (HbA1c measures the average blood glucose level over the past 9-120 days and is used to help guide treatment so that the person with diabetes is maintaining a safe glucose level to prevent damage to the kidneys, heart, etc.)
- Percent of adults with diabetes who had a retinal eye examination in the past year (to identify damage to blood vessels in the eye).

- Percent of adults with diabetes who had a foot examination in the past year (to find sores or wounds that are not healing properly).
- Percent of adults with diabetes who had an influenza vaccination in the past year (to prevent problems with diabetes control that can result from getting the flu).

While the list of measures in the NHQR is much longer, the major indicators listed above have State-level measures. Also, the NHQR does not encompass all of the measures of diabetes care quality, due to limited nationwide data or reliability concerns. States can use other measures if they choose, such as self-reports of blood glucose control or diabetes education contained in the Behavioral Risk Factor Surveillance System (BRFSS), or they can develop new measures for their specific needs.

This *Workbook* is a start for State leaders interested in learning about quality improvement for diabetes care. The actual planning, implementation, tracking, and evaluation of a diabetes care quality improvement program will go well beyond this *Workbook* and its companion *Resource Guide*. Carrying out such a program will require a team of experts: State leaders and agency staff, topic experts, researchers, health specialists, statisticians, data collection experts, evaluation researchers, and representatives from stakeholder groups.

### **Who Should Use This Workbook**

This workbook is intended for multiple users:

- State elected leaders (governors, legislators, and their staff who provide leadership on health policy).
- State executive branch officials (State health departments, diabetes prevention and control program leaders, Medicaid officials, and their staff).
- Non-governmental State and local health care leaders (professional societies, provider associations, quality improvement organizations, voluntary health organization, health plans, business coalitions, community organizations, and consumer groups).

### **How To Use This Workbook**

While this *Workbook* can be completed by one individual, it would be a lengthy process that few State leaders have time for or may be equipped to answer. Therefore, State leaders may want to enlist the help of staff and others who will eventually become part of the quality improvement team who will develop, implement, and evaluate a diabetes care quality improvement program.

The user should first read the Executive Summary and Introduction of the *Resource Guide*. The Executive Summary gives an overview of the *National Healthcare Quality Report* and the *National Healthcare Disparities Report* and outlines the purpose and structure of the *Resource Guide*. The Introduction provides information about how to use the *Resource Guide*. Based on the State leader's interests, needs, and role in developing a quality improvement program, users will want to focus on different modules such as:

*Senior leaders*

- Module 1: Background—Making the Case for Diabetes Care Quality Improvement

- Module 4: Action—Learning From Activities Currently Underway
- Module 6: The Way Forward—Promoting Quality Improvement in the States

*Staff specialists*

- Module 2: Data—Understanding the Foundation of Quality Improvement
- Module 3: Information—Interpreting State Estimates of Diabetes Quality
- Module 5: Improvement—Developing a Strategy for Diabetes Quality Improvement

Modules 1 through 4 might be done by different individuals or groups of individuals to gather information. That information, however, will be assembled and organized in Module 5 to “make the case” for quality improvement of diabetes care, help create a team of experts, and design a strategy to develop a diabetes care quality improvement program specific to your State’s needs. Module 6 will help State leaders assess their strengths and where they need help in instituting improvement in health care quality.

## **References**

- <sup>1</sup> Centers for Disease Control and Prevention. (2003). Diabetes: A serious public health problem. Available at: [www.cdc.gov/nccdphp/bb\\_diabetes/](http://www.cdc.gov/nccdphp/bb_diabetes/) (accessed December 17, 2003).
- <sup>2</sup> Hogan P, Dall T, Nikolov P. (2003). Economic costs of diabetes in the U.S. in 2002. *Diabetes Care*, 26(3):917-32.



## Module 1: Background — Making the Case for Diabetes Care Quality Improvement

### Learning Objective

Upon completion of Module 1, the user(s) will be able to:

1. **Assess the need for diabetes care quality improvement in the State.** (This section will pull together information to help “make the case” for improvement in diabetes care by showing why diabetes should be a priority.)

### 1. Assess the need for diabetes care quality improvement in the State.

Review pages 7-19 of the *Resource Guide*.

a. Look at Figure 1.1 on page 10. This figure shows the diabetes prevalence range diagnosed for every 100 adults in 1994 for a standard age distribution across the States and then again in 2002. For example, in 1994, in Oklahoma less than 4 percent of adults (age-adjusted) had been diagnosed with diabetes. In 2002, this prevalence was at 6 percent or greater. If you want to know the unadjusted (actual) diabetes prevalence for your State, look in Table 2.3, page 37 of the *Resource Guide*.

- What was the percent range of age-standardized diabetes prevalence in your State for 1994? (Figure 1.1, page 10)

\_\_\_\_\_

- What was the percent range of age-standardized diabetes prevalence in your State for 2002? (Figure 1.1, page 10)

\_\_\_\_\_

- Has age-standardized diabetes prevalence increased in your State since 1994?

\_\_\_\_\_

- What was the actual diabetes prevalence (not adjusted to a standard age distribution) in your State for 2002?

\_\_\_\_\_



d. What evidence from these pages would you use to convince potential partners that diabetes should be a priority?

---

---

---

---

---

---

---

---

---

---

---

---

e. Pages 15-18 summarize gaps that exist with respect to recommended care for people with diabetes and the care actually received. A variety of factors such as age, race, gender, education, employment, health insurance, income, place of residence, and health status can influence these gaps. To find measures for some of these factors compared to other States, you can use the Kaiser Family Foundation Web site on State health facts (<http://www.statehealthfacts.org/>).

1) Who in your State might be vulnerable to gaps in diabetes care (for example, the elderly, the uninsured, minorities, etc.)?

---

---

---

---

---

---

---

---

---

---

---

---

2) Does your State have a higher proportion of these vulnerable groups than other States?

---

---

---

---

---

---

---

---

---

---

---

---

f. Go to Appendix F, which begins on page 134 of the *Resource Guide*. Find any measures for any conditions that are below average in your State. Read the measure carefully. If the measure reflects a positive outcome or process (e.g., percent of women age 40 and over who report they had a mammogram in the last year), then a minus (-) sign in the column for your State indicates that your State is significantly below the national average and even farther below the best performing States while a plus (+) sign indicates your State is significantly above the national average. If a higher value for the measure represents a negative outcome or process (e.g., median time to thrombolysis (use of a blood thinner) for a heart attack victim), then a plus sign indicates that your State is significantly above the national average and farther from the best performing States while a minus sign indicates your State is significantly below the national average. Write down any topic and measure that shows poor processes or outcomes for your State.

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_

g. What measures for diabetes are below average?

\_\_\_\_\_

h. What other measures indicate that you may want to create a quality improvement program for a different condition?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

i. Do you think your State needs diabetes care quality improvement?

\_\_\_\_\_

j. Why or why not? If not, would you select a different condition?

---

---

---

---

---

---

---

---

---

---

---

## Module 2: Data — Understanding the Foundation of Quality Improvement

### Learning Objectives

Upon completion of Module 2, the user(s) will be able to:

- 1. Understand the process and outcome measures for tracking the quality of diabetes care.** (Understanding these measures will help the user identify gaps in recommended care, how closing these gaps can improve health status, and how the measures can be used as the basis for setting goals.)
- 2. Compare State data with national benchmarks and identify gaps in State data.** (Collecting and analyzing data in your State is important to making your case for improving care and calculating the long-term costs of diabetes and its impact on your State. Data also help you create baseline measures and set goals for improvement.)
- 3. Develop an inventory of the data systems available at the State and local levels.** (An inventory will identify existing data that may be useful and collection mechanisms that might easily be enhanced for tracking quality improvement.)
- 4. Use published studies to arrive at State or local estimates.** (Research helps inform States of gaps in their data, questions that remain to be answered, and the need for additional research.)
- 5. Calculate the direct and indirect costs of diabetes for States and State Medicaid programs.** (Knowing the costs will help make the case for quality improvement, provide States with baseline measures, and help set goals.)

- 1. Understand the process and outcome measures used for tracking the quality of diabetes care.**

Read pages 21-24 and Figure 2.1 on page 25 of the *Resource Guide* and answer the following questions:

- a. What does HbA1c testing (a process measure) tell you about blood glucose levels (an outcome measure)?

---

---

---

---

---

---

---

---

---

---



b. How does your State compare to the national, best-in-class, and Healthy People 2010 goal averages? Take your percent in the table above, subtract it from the national, best-in-class, and Healthy People 2010 figures, and write those figures in the table below:

Percent of adults (in 2001) who received:	Percent your State is above (+) or below (-)		
	National average (%)	Best-in-class average (%)	Healthy People 2010 goal (%)
HbA1c testing			
Retinal eye examination			
Foot examination			
Flu vaccination			n/a

c. Select two States from table 2.1 within your region or locality and write their figures down below. Then subtract your percent from their percents. How does your State compare?

Percent of adults (in 2001) who received	_____ (State) (%)	Percent your State is above (+) or below (-) this State	_____ (State) (%)	Percent your State is above (+) or below (-) this State
HbA1c testing				
Retinal eye examination				
Foot examination				
Flu vaccination				

d. From your knowledge of your State demographics and health care providers, what roles do access issues, cultural barriers, insurance status, income, place of residence, or provider education have in your rates? What other access issues may influence diabetes care?

---



---



---



---



---



---



---



---



---



---





**3. Develop an inventory of the data systems available at the State and local levels.**

a. Review pages 30-33 of the *Resource Guide*. Begin an inventory list of data sources available for your State. Also note how these data sources might be able to answer the questions you wrote down in exercises “e” and “g” above. You might also note questions you have about these data sources – things you want to find out from your data resource experts in the State.

Data source	Data available on your State? (Yes/No)	Notes
BRFSS		
HCUP		
State vital statistics		
Disease registries		
Medicaid health provider reimbursement claims		
State employee health benefits claims		
Census population data		
Area Resource File		
National Committee on Quality Assurance data		
State Diabetes Prevention and Control Program (DPCP)		
CDC Division of Diabetes Translation		
Kaiser Family Foundation		
Others:		



**5. Calculate the direct and indirect costs of diabetes for States and State Medicaid programs.** The direct and indirect costs of diabetes for your State population and Medicaid population have been calculated from the literature and demographic information about your State.

Review pages 33-38 of the *Resource Guide*.

a. Direct costs are expenditures associated directly with treatment of the disease: routine services, treatment of complications, and medical conditions attributable to diabetes. Indirect costs are the lost opportunities or additional costs of living that affect individuals because they have diabetes: lost wages and productivity, the cost of dealing with impairments, premature death, etc. Do you have better estimates for costs from your State’s Department of Health or Medicaid office than those listed in Table 2.2 on page 35?

---

Your State estimates for spending on diabetes medical care would be more accurate than these derived through national studies and generalized assumptions.

b. From Table 2.3 on page 37, find the figures for your State and the two States in question 2c above and fill in the blanks:

	Your State	Comparable State	Difference (+/-)	Comparable State	Difference (+/-)
Percent of population with diabetes					
Direct cost of diabetes					
Indirect cost of diabetes					
Total cost burden					

c. How do these figures compare with States you consider similar to your State?

---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



## Module 3: Information — Interpreting State Estimates of Diabetes Quality

### Learning Objectives:

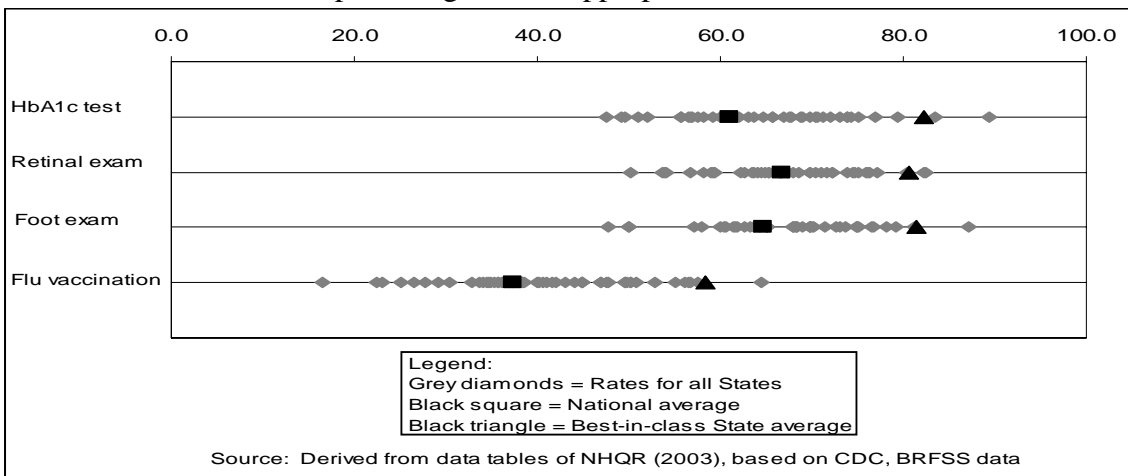
Upon completion of this module, the user(s) will be able to:

1. **Identify State rates benchmarks for the four major measures and assess those rates in relation to national averages and other States.** (There are many types of benchmarks—national average, best-in-class performance, and national consensus-based-goal benchmarks.)
2. **Identify factors that influence a State’s position among other States.** (Knowing these factors can help States assess how difficult it may be to change and where States should target their efforts.)
3. **Identify the benchmarks to be used to set goals for improving diabetes care.** (Any of the benchmarks listed above can be used to set goals. Aiming for the average is usually the least rigorous goal, while striving to be the best-in-class is usually the most rigorous, achievable goal. Knowing your State’s position as it relates to the full distribution of State rates also shows how well the State is doing among all States. A State that is among the lowest in the Nation on a particular dimension might want to focus improvement in that area.)
4. **Draft preliminary goals for specific measures.** (Knowing what you want to achieve in the long term will help States identify the resources and tools they need to get there.)

### 1. Identify State rates to use as benchmarks for the four major measures and assess those rates in relation to national averages and other States.

Read pages 41-47. Note the various definitions of benchmarks on page 43.

a. With a colored pen or pencil, take the figures you wrote down in question 2a, in Module 2 and mark the percentage on the appropriate line in the chart below.



b. Note whether your State rates fall above or below the national average benchmarks and where they are in relation to other States. Go back to Table 2.1 on page 28 of the *Resource Guide* for the rates by State. Are any of the percentages for your State:

1) Significantly above the national average (indicated by a “+” sign next to the value for your State rate)? Which ones?

---

---

---

---

---

---

2) Significantly below the national average (indicated by a “-” sign next to the rate)? Which ones?

---

---

---

---

---

---

3) Within the best-in-class range and, thus, not significantly different from the best-in-class average (indicated by a “‡” sign, which says that the State is either one of the best-performing States or is within a margin of error of these States)? Which ones?

---

---

---

---

---

---

4) Significantly below the best-in-class range (does not include a “‡” sign next to the State rate)? Which ones?

---

---

---

---

---

---





b. Study Figure 3.6 on page 58. Note the relationships between hospital admissions, obesity, poverty, and diabetes prevalence.

1) What inferences can you make from the data?

---

---

---

---

---

---

2) What do you know about your own State's infrastructure, its population, obesity, poverty levels, the uninsured, public education, funding, and leadership? How might those factors affect people with diabetes?

---

---

---

---

---

---

3) If your State's data are not listed in Figure 3.6, how could you get these data for your State? (Hint: see your response to the data sources question from Module 2.)

---

---

---

---

---

---

**3. Identify the benchmarks to be used to set goals for improving diabetes care.**

Review the *Resource Guide*, page 43 and Appendix D, on benchmarks and your answers to Module 2, question 2 and Module 3, question 1. Note the best benchmarks to use and why different benchmarks might be chosen in different circumstances.

a. Which benchmarks for which measures would you select from Module 2, question 2a to strive for improving diabetes care in your State?

---

---

---

---

---

---

b. Write the figure in the appropriate blank below:

	National average	Best-in-class average	National HP 2010 goal
HbA1c test			
Retinal exam			
Foot exam			
Flu vaccination			n/a

c. For each measure, why did you select that type of benchmark?

HbA1c test:
Retinal exam:
Foot exam:
Flu vaccination:

#### 4. Draft preliminary goals for specific measures.

Review pages 47-53 of the *Resource Guide* for examples of how benchmark data were interpreted for four States.

a. Consider your State's data in relation to setting preliminary goals for a diabetes care quality improvement program. For each of the four measures, set a preliminary goal to reach the benchmarks you selected in Module 3, question 3. Some examples of goal statements are:

- Increase the number of adults with diabetes who receive an HbA1c test at least once a year to the level of the national average – 61 percent.
- Increase the number of adults with diabetes who receive an HbA1c test at least once in a year to the best-in-class average – 82 percent.
- Increase retinal exam testing for adults with diabetes by 5 percentage points within the next 3 years.
- Increase the number of adults with diabetes who receive foot examinations from their physicians to reach the Healthy People 2010 goal – 75 percent.
- Increase the number of adults with diabetes who receive flu vaccinations to the best-in-class average – 58 percent.
- Identify the barriers to obtaining HbA1c testing or retinal exams or foot examinations or flu vaccinations.
- Begin collecting data on any or all of the measures (if your State does not already have these data).

**Guidance for Setting Goals:**

- *Consider this goal-setting exercise as preliminary to enhance your understanding. (Stakeholders who will become champions of the initiative must have a part in setting goals for the program. Only in that way will the goals reflect the circumstances that the community faces and be supportable by leaders in the health care community.)*
- *Note where your State falls on the chart in Module 3, question 1a: Is your State extremely low, close to the national averages, or within the best-in-class averages? (Your position on the chart will tell you how far your State must go to be among the best performing health care systems.) Do you want to set long-range and short-range goals?*
- *Remember that you will have to identify and address the underlying issues that affect your State's position.*
- *The four measures featured here are only a subset of the meaningful goals and are not necessarily the most effective goals for diabetes quality improvement in your State. (HbA1c levels, provider and patient education, adherence with recommended lifestyle changes, and focus on vulnerable populations are some of the important goals that your planning group may decide to set.)*
- *As you move through the planning process and discover new information, you can come back and change your goals to reflect your new knowledge.*
- *Your quality improvement program for diabetes care should ultimately be designed to reach the goals set by the full quality improvement team.*

What are your preliminary goals for:

---

HbA1c testing:

---

---

---

---

Retinal exam:

---

---

---

---

Foot exam:

---

---

---

---

Flu vaccination:

---

---

---

## Module 4: Action — Learning From Activities Currently Underway

### Learning Objectives:

Upon completion of Module 4, the user(s) will be able to:

1. **Identify tools and resources to build a quality improvement program.** (Knowing what resources are already available saves time and money.)
2. **Identify various State approaches to diabetes quality improvement and best practices.** (Many existing program models can be modified to accommodate State-specific needs.)
3. **Create an inventory of your State’s quality improvement actions and resources.** (You can build upon the resources and partnerships that already exist and identify where your State needs to develop activities.)

### 1. **Identify tools and resources to build a quality improvement program.**

Review pages 62-69 of the *Resource Guide* for selected public/private quality improvement initiatives as well as Federal programs and resources.

- a. Is your State currently using any of these tools and resources?

---

---

---

---

---

---

---

---

---

---

- b. If so, how well are they working?

---

---

---

---

---

---

---

---

---

---

c. Visit some Web sites listed below and jot down ideas to help you build, implement, and evaluate a diabetes care quality improvement program. (Note: additional quality improvement initiatives are located in Appendix G, which begins on page 148 of the *Resource Guide*.)

***National Diabetes Quality Improvement Alliance***

<http://www.nationaldiabetesalliance.org/>

Ideas:

---

---

---

***Chronic Care Model***

<http://www.improvingchroniccare.org>

Ideas:

---

---

---

***IHI Breakthrough Series Collaborative***

- Institute for Healthcare Improvement (IHI) Breakthrough Collaboratives general information:

<http://www.ihl.org/IHI/Programs/CollaborativeLearning/>

Ideas:

---

---

---

- Improving care for people with chronic conditions – diabetes:  
<http://www.ihl.org/IHI/Topics/ChronicConditions/Diabetes/HowToImprove/>

Ideas:

---

---

---

- Report from the Health Disparities Collaborative on Diabetes:  
[http://www.healthdisparities.net/Diabetes\\_Apr2002.pdf](http://www.healthdisparities.net/Diabetes_Apr2002.pdf)

Ideas:

---

---

---

***Disease Management Programs***

- Disease Management Association of America  
<http://www.dmaa.org>

Ideas:

---

---

---

- Council of State Governments  
<http://www.csg.org/CSG/Policy/health/chronic+illness/default.htm>

Ideas:

---

---

---

***Self-Management Programs***

- Chronic Disease Self-management Program at Stanford University  
<http://patienteducation.stanford.edu/programs/>

Ideas:

---

---

---

***Federal Programs and Resources for Diabetes Quality Improvement***

- CDC Diabetes Prevention and Control Program (the State's DPCP)  
<http://www.cdc.gov/diabetes/states/index.htm>

Ideas:

---

---

---

- Diabetes Detection Initiative and Steps to a Healthier US Initiative  
<http://www.ndep.nih.gov/ddi> and <http://www.healthierus.gov/steps/index.html>

Ideas:

---

---

---

- Health Resources and Services Administration, Bureau of Primary Health Care, Health Disparities Collaboratives  
<http://bphc.hrsa.gov/programs/HDCProgramInfo.htm> and  
<http://www.healthdisparities.net/>

Ideas:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- National Diabetes Education Program (NDEP)  
<http://ndep.nih.gov> and <http://www.betterdiabetescare.org>

Ideas:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Centers for Medicare & Medicaid Services Quality Improvement Organizations  
<http://www.medqic.org/content/nationalpriorities/topics/projectdes.jsp?topicID=477&showMeasures=yes&showSteps=yes>

Ideas:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





**3. Create an inventory of your State’s quality improvement actions and resources.**

a. Inventory your own State’s activities. Note in the chart below the stage of development for each activity. Also note if your State has not yet begun undertaking an activity or if the activity is complete.

<b>State Diabetes Quality Improvement Inventory</b>			
<b>State Quality Improvement Action</b>	<b>Stage of Development</b>		
	<b>Planning</b>	<b>Implementation</b>	<b>Evaluation</b>
<i>Partnership/Planning Activities</i>			
Coalition/Advisory Board			
Collaborative			
Cross-Agency Initiatives			
<i>Program Development Activities</i>			
Diabetes Care Guidelines			
Data Measurement and Reporting			
Information Technology			
Patient Education/Self Management			
Provider Training			
Collaborative			
Disease Management			
<i>Dissemination Activities</i>			
Raising Awareness			
Minority and Rural Outreach			
<b>Other Quality Improvement Action in My State</b>			
Non-Governmental Initiatives			
Federal Initiatives			
Local Initiatives			

b. Review Appendix H of the *Resource Guide* on page 152. In the table below, write down your State’s level of funding for diabetes from the CDC, the State’s general fund, and State in-kind resources. Compare these levels with two or three other States in your region or locality.

	CDC funding	State general fund	State in-kind	Total
Your State				
Comparable State				
Comparable State				
Comparable State				

## Module 5: Improvement — Developing a Strategy for Diabetes Quality Improvement

### Learning Objectives

Upon completion of Module 5, the user(s) will be able to:

1. **Have assembled in this document the information from Modules 1-4 above that presents: a) the case for diabetes quality improvement in the State; b) a preliminary strategy suited to the State; and c) strategic partnerships for diabetes quality improvement efforts.**
2. **Have a preliminary “Plan” as part of the “Plan-Do-Study-Act” (PDSA) model of the cycle of quality improvement.** Again, consider this plan preliminary. The full quality improvement team must be part of the creation of the plan to ensure its relevance, completeness, and success for obtaining support from stakeholders in the State health care community.

1. **Have assembled in this document the information from Modules 1-4 above that presents: a) the case for diabetes quality improvement in the State; b) a preliminary strategy suited to the State; and c) strategic partnerships for diabetes quality improvement efforts.**

a. Build the case for diabetes quality improvement in the State. Create a document that assembles the information you have written down in response to these questions:

- 1) From Module 1, questions 1a, 1b, 1c, 1d, 1e, 1f, 1g, 1h:
  - Has diabetes increased in prevalence from 1994 to 2002 in your State?
  - Why should improving diabetes care be a priority?
  - What populations are vulnerable to gaps in diabetes care?
  - What measures for diabetes care are below average in your State?
- 2) From Module 2, questions 2a, 2b, 2c, 2e, 3a, 4a, 4b, 4c:
  - How does your State compare with national and best-in-class averages?
  - How close are you to the Healthy People 2010 goals?
  - How does your State compare with other States in your region or locality?
  - Where do you need the most improvement?
  - What is the cost of diabetes in your State?
  - How do you compare with other States in your region or locality?
- 3) From Module 2, question 2d and Module 3, questions 1a, 1b, 2a, 2b:
  - Which diabetes health care measures are below the national average?
  - What factors affect the quality of diabetes care in your State?

b. Add a preliminary strategy, suited to the State, to the document you started above. Convene a working meeting with your internal staff. Use the information you collected throughout this Workbook (noted in parentheses) to fill out the outline below.

- 1) Decide on topic areas related to quality improvement.
  - What do you predict as the current obstacles to quality care? (Module 1, question 1e)
  - What factors influence diabetes care? (Module 2, questions 2d, 2e, 3a; Module 3, questions 2a, 2b)
  - What questions do you have about the quality of diabetes care? (Module 2, question 2g; Module 3, questions 2a, 2b)
  - What does current research indicate about diabetes care in your State? (Module 2, questions 2b, 3a, 4b, 4c)
  
- 2) Develop predictions about how the State performs, why, and how the State could improve.
  - Why has diabetes prevalence increased? (Module 1, questions 1a, 1b, 1e; Module 2, question 2d; Module 3, questions 2a, 2b)
  - How could your State improve? (Module 2, questions 1b, 2b, 2c, 2e, 3a, 4b; Module 3, questions 1a, 1b, 2a, 2b)
  
- 3) Develop goals for quality improvement. (Module 1, question 1g; Module 2, questions 1a, 1b, 2b, 2c, 4b, 4c; Module 3, questions 3a, 3b, 4a; Module 4, questions 2a, 2b)
  
- 4) Take an inventory of current diabetes quality improvement programs in the State, including non-governmental, Federal, or local initiatives. Make a preliminary list of additional actions to take. (Module 4, questions 1a, 1b, 3a)
  
- 5) Identify data needs, including measures, benchmarks, and data sources.
  - Do you have data for diabetes measures (Module 1, question 1f; Module 2, questions 2a, 3a; Module 3, question 2b)
  - What data sources does your State have? (Module 2, questions 2f, 2h, 3a)
  - What information on costs does your State have? (Module 2, questions 3a, 4a)
  - What additional data do you need? (Module 2, questions 3b, 4d)

- c. Identify strategic partnerships for diabetes quality improvement efforts.

Read pages 85-91 of the *Resource Guide*.

Add to the document, ideas for partnerships that would be strategic for achieving diabetes quality improvement. Include the key experts and stakeholders in quality improvement (consumers, health care team members, purchasers, health plans, and topic experts), as well as champions in health care who will carry key messages to the front line of health care. Decide who are strategic partners of quality improvement and recruit them to the project, such as health specialists, statisticians and data experts, researchers, evaluation specialists, and key State leaders and agencies. Begin filling in names, organizations, and their role in the table below. (Also refer to your answers in Module 4, questions 2c and 3a.)

<b>Partners</b>	<b>Name or position</b>	<b>Organization</b>	<b>Role in quality improvement program</b>
<b>Experts</b>			
Topic (diabetes)			
Health services research			
Health care specialist			
Statistician			
Data collection			
Quality improvement			
Evaluation research			

<b>Stakeholders</b>			
Consumers			
Health care providers			
Purchasers			
Insurers			
Health plans			

<b>Elected officials</b>			
Governor			
Lieutenant Governor			
Other elected officials			
Legislative leaders			
Cabinet leaders and State department heads			

<b>Staff leadership</b>			
Senior State Health Department staff			
Senior policy staff			
Diabetes program staff			
Medicaid program staff			
Quality improvement staff			
Other:			
Other:			

<b>Others</b>			

**2. Have a preliminary “Plan” as part of the “Plan-Do-Study-Act” (PDSA) model of the cycle of quality improvement.**

Now that you have completed the preliminary plan, you can move from the “Plan” to the “Do” stage of the PDSA model.

Read pages 92-96 of the *Resource Guide* on implementing the PDSA model. You cannot complete the next steps of the PDSA cycle alone. The partnership defined above will be critical.

Do:

- Assemble a collaborative of quality improvement champions and stakeholders.
- Give them a charge to improve health care quality in your State.
- Discuss diabetes versus other conditions ripe for quality improvement and select a condition.
- Work with them to set goals; to develop an intervention, plan, and evaluation strategy; to collect data, and to test the plan.
- Draw on the *Resource Guide*, especially if diabetes is the topic selected.
- Keep the group on track. Keep assessments timely and do not let the perfect be the enemy of the good.
- Move to the next step.

Study:

- Pilot test the group’s ideas.
- Collect data—baseline and post-intervention data—even in the pilot stage.
- Analyze the results and draw conclusions. Differentiate between solid conclusions and inconclusive findings; use this information to improve the tracking system.
- Plan an effective tracking system to know if the intervention matters when it is rolled out statewide.

Act:

- When the group agrees, implement the quality improvement strategy statewide.

The PDSA model will be a resource again and again—to create this plan, to work with your quality improvement team on goals for diabetes, to keep the cycle going, and to attack other health care issues.

## Module 6: The Way Forward — Promoting Quality Improvement in the States

### Learning Objective

Upon completion of Module 6, the user(s) will be able to:

1. Identify what the user(s) can uniquely contribute to promote quality improvement in health care and where help is needed.

1. Identify what the user(s) can uniquely contribute to promote quality improvement in health care and where help is needed.

Read pages 99-101 of the *Resource Guide*. Note areas where you have particular strengths and resources to contribute. Note dimensions where your skills and those of your staff may be weakest. Devise approaches (e.g., input from other agencies, new hires, grant applications, etc.) to strengthen the weakest areas. Some of these areas are:

- a. Providing leadership and vision

---

---

---

---

---

---

---

---

- b. Forming partnerships and collaborations

---

---

---

---

---

---

---

---



c. Assisting planning and goal setting

---

---

---

---

---

---

---

---

d. Initiating measurement and reporting

---

---

---

---

---

---

---

---

e. Including evaluation and accountability

---

---

---

---

---

---

---

---

f. Enhancing infrastructure

---

---

---

---

---

---

---

---

g. Creating incentives

---

---

---

---

---

---

---

---

## A Final Note

Now that you have answered the questions in this *Workbook* and assessed your strengths and weakness for leading a quality improvement initiative, you are ready to take action. The goal of changing health care quality in your State may seem overwhelming. Yet, with small, smart steps, you can be effective in making that happen.

Assemble your staff or your network of State leaders and discuss the idea. You may want them to do the exercises in this *Workbook*, read the *Resource Guide*, and prepare some ideas for a preliminary plan even before you meet. The most important first step will be identifying and recruiting public and private partners for health care quality improvement—other State agencies, purchasers, provider groups, consumers, and experts who fill in the gaps in your knowledge. Find out who the change agents for health care quality are in your community.

Remember, without involving the professionals at the forefront of health care, there can be no quality enhancement. As we have noted in throughout this *Workbook* as well as in the *Resource Guide*, the full stakeholder group should be involved in designing the goals, the approach, the details of implementation, and the evaluation strategy. Only with an effective team of leaders, champions, and change agents for improving health care quality will the health care system in your State be able to change and provide better care for your community.