Indian Health Diabetes Best Practices:

Diabetes Systems of Care

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Contents

What does "diabetes systems of care" mean?

Diabetes systems of care means providing quality diabetes care, prevention, and treatment through an integrated, multidisciplinary approach.

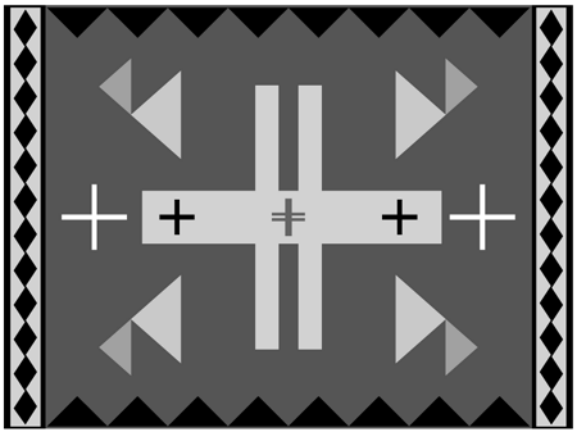
Why is a systems approach to diabetes care important?

Diabetes is an increasingly prevalent and serious chronic disease. Health care systems must use an integrated, multidisciplinary approach to *prevent diabetes* among those at risk and *provide quality care* to prevent or delay complications among those with diabetes. To do this, health care systems need to provide diabetes prevention and care that is (CDC, 2001):

- Continuous, not episodic.
- Proactive, not reactive.
- Planned, not sporadic.
- Focused on prevention, not just treatment.
- Patient-centered, rather than provider-centered.
- Population-based, as well as individual-based.

Consider these opportunities and benefits associated with a multidisciplinary systems approach to diabetes care:

- Addressing risk factors offers an opportunity for prevention, reduction in health care costs, improved quality of life, and reduction in premature mortality.
- Diabetes prevention and treatment can decrease morbidity, mortality, and costs.
- A multidisciplinary systems approach is more likely to occur with active involvement from leadership, long-term investments, and the involvement of policy makers, health care organizations, communities, and patients.



Best practices for diabetes systems of care

The best practice for diabetes systems of care describes the best methods for:

- Forming a multidisciplinary diabetes team.
- Identifying people at risk for diabetes and implementing appropriate interventions.
- Managing people with diabetes and those at risk of developing diabetes using a systems approach.
- Monitoring and evaluating patient outcomes.

Table 1 describes the best practices for diabetes systems of care.

Table 1. Best practices for diabetes systems of care.

Provider Recommendations	Best Practices
1. Form a multidisciplinary **diabetes team**	***Why?*** Primary care physicians currently provide 80% to 95% of diabetes care in the U.S. However, they alone cannot provide all of the care that diabetes patients need. One way to overcome this challenge and meet the needs of diabetes patients is to include other health care professionals in team-based diabetes care. The benefits of diabetes teams are numerous (CDC, 2001): – Multidisciplinary diabetes teams bring together the skills, experience, and expertise of different health care providers. Together, they contribute to quality diabetes treatment and prevention efforts. – Team-based care has been shown to improve blood sugar control, increase patient follow-up, increase patient satisfaction, lower risk for diabetes complications, improve quality of life, and decrease health care costs. ***How?*** – Obtain the commitment of organization leadership to: • Form a multidisciplinary diabetes team. • Provide the necessary resources and infrastructure to help the team function. – Organize a planning group to gain support from health care providers and identify team members. • Select well-respected health care providers to help generate interest and gain support for a diabetes team. • Involve a core group of team members early in organizational and clinical decision-making. Encourage them to actively participate.

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Table 1. Best practices for diabetes systems of care. (continued)

Provider Recommendations	Best Practices
1. Form a multidisciplinary **diabetes team** (continued)	• Demonstrate team care on a small scale to help providers become comfortable with team-based care. Is team-based care practical and effective in your setting? • Meet with potential team members, policy makers, and business representatives who are responsible for reimbursement (e.g., clinic and office managers). • Include experts on the team, such as foot care specialists, pharmacists, dental professionals, registered dietitians, eye care specialists, certified diabetes educators, and behavioral specialists. • Develop the roles and responsibilities of each team member, and establish methods to work together. • Resolve overlap and redundancy in care delivery procedures. – Identify consultants and community partners who can help your team.
2. Identify **people at risk for diabetes** and implement appropriate interventions	***Why?*** Scientific evidence has shown that long-lasting, multidisciplinary interventions can help prevent diabetes. Behavioral and pharmacological interventions are examples of interventions that need to be in place for a long time and include a diverse group of health professionals (DPP, 2002). ***How?*** – Review information and resources on diabetes and its risk factors. The National Diabetes Education Program provides a directory of government agencies, professional organizations, and volunteer associations that provide information and resources related to diabetes and its risk factors. Some of these organizations offer educational materials and support to people with diabetes and the general public, while others serve primarily health care professionals. This list of resources can be accessed at the website: http://ndep.nih.gov/diabetes/pubs/Youth_ResDirectory.pdf. – Identify and target all patients with prediabetes. – Use intervention curriculum materials, such as materials from the Diabetes Prevention Program (DPP). (DPP materials are available at no cost from the website: www.bsc.gwu.edu/dpp/manuals.htmlvdoc.) In addition, materials from the National Diabetes Education Program campaign, called *Small Steps, Big Rewards*, may be helpful. Information and materials are available at no charge at the website: www.ndep.nih.gov/campaigns/SmallSteps/SmallSteps_index.htm.

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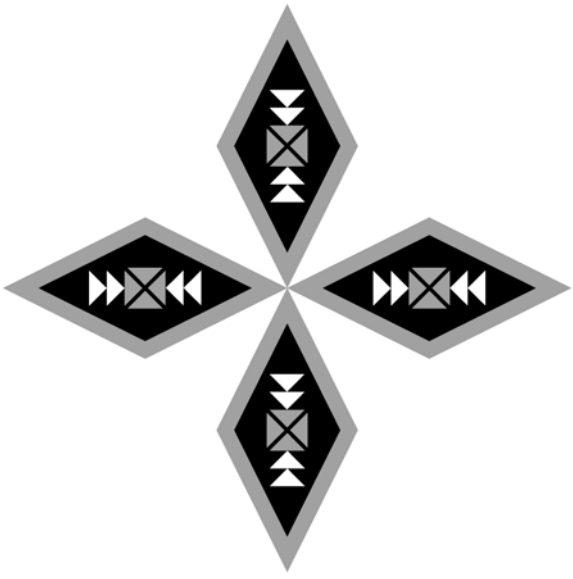
Table 1. Best practices for diabetes systems of care. (continued)

Provider Recommendations	Best Practices
3. Manage **people with diabetes and those at risk of developing diabetes** using a systems approach	***Why?*** Health care systems that commit to quality diabetes management can improve process and outcome measures for diabetes. These process and outcome measures include a reduction in short-term costs through fewer hospital admissions, emergency department visits, and physician consultations. Studies have also shown that improved blood sugar control through diabetes management is associated with short-term reductions in hospital stay and reduced hospital and outpatient use, as compared with usual care (Wagner *et al*., 2002). ***How?*** – Establish and maintain a diabetes registry with useful and up-to-date information. – Identify subgroups of people (e.g., youth at risk, people with prediabetes, and women of child-bearing age) for proactive care. – Use care reminders for patient appointments. – Build feedback systems for providers into the information system. – Offer individualized patient care aided by the information system. – Integrate specialist expertise into primary care. – Inform patients about care guidelines. – Involve the patient in developing their individual plan of care. – Emphasize that it is important for the patient to take an active role in managing their diabetes. – Establish measurable goals for diabetes care and prevention as part of the annual plan. – Develop evidence-based programs with community partnerships.

(Table 1 continued on next page)

Table 1. Best practices for diabetes systems of care. (continued)

Provider Recommendations	Best Practices
4. **Monitor and evaluate patient outcomes**	*Why?* Monitoring outcomes is essential to (NCQA, 2006): – Determine the effectiveness of a systems approach to diabetes care. – Identify challenges. – Determine the changes needed to make improvements. ***How?*** Consider measuring the following: – Clinical outcomes, such as A1c, blood pressure, lipid levels, and weight. – Physical activity levels. – Patient satisfaction. – Health care service utilization. – Quality of life. – Costs. – Hospital admissions.



Best practices for health care organizations

A health care organization that wants to improve diabetes care must be motivated and prepared for change throughout the entire organization. The organization's leadership must identify diabetes care improvement as important work. They must also develop clear improvement goals, policies, and strategies. This will help encourage the entire organization to make changes that will help improve diabetes care.

Table 2 describes the best practices for health care organizations.

Table 2. Best practices for health care organizations.

Organizational Recommendations	Best Practices
System and programmatic changes	***Why?*** Applying a systems approach to diabetes treatment and prevention may encourage high-quality diabetes care (Wagner *et al*., 2002). ***How?*** The following activities may help your health care organization create a culture and mechanisms that promote safe and high quality diabetes care: – Assess your organization's infrastructure, capacity, and readiness to implement a systems approach to diabetes. – Create a strategic plan to improve diabetes care. – Expand the diabetes care system to integrate elements of good chronic care management. – Mobilize community resources to meet patients' needs. – Prevent errors and care problems by openly reporting and studying mistakes and making appropriate changes to fix problems. – Prevent breakdowns in communication and care coordination through agreements that facilitate communication and data-sharing. – Obtain organizational support for: • Evidence-based decision-making. • Focusing on the entire population (in addition to individuals) and chronic public health problems, such as diabetes. • Focusing on diabetes and chronic disease prevention. • Shifting the paradigm from acute care to the prevention and care of chronic diseases. • Delivering effective, efficient, patient-centered clinical care and self-management support.

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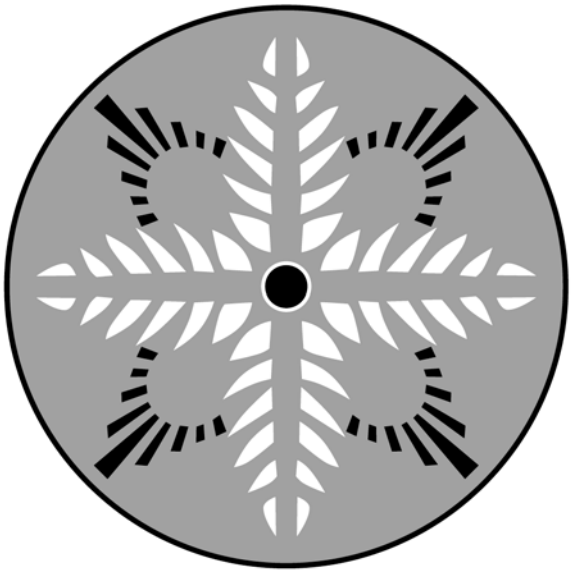
Table 2. Best practices for health care organizations. (continued)

Organizational Recommendations	Best Practices
System and programmatic changes (continued)	• Promoting clinical care that is consistent with scientific evidence and patient preferences. • Supporting clinical information systems to organize patient and population data that will inform efforts to develop efficient and effective diabetes and chronic disease programs. • Providing incentives based on quality of care.



Essential elements of best practice diabetes systems of care

High quality diabetes care involves implementing six essential elements* in your health care organization. These elements are:

- Community resources and policies.
- Health care organization leadership.
- Patient self-management support.
- Delivery system design: Services, programs, systems, and procedures.
- Decision support: Information and training for providers.
- Clinical information systems: Collecting and tracking information.

Table 3 summarizes how these elements apply to basic, intermediate, and comprehensive diabetes systems of care.

*Adapted from the Chronic Care Model, which was developed by the MacColl Institute for Healthcare Innovation at the Group Health Cooperative. For more information on the Chronic Care Model, visit their website at www.improvingchroniccare.org.

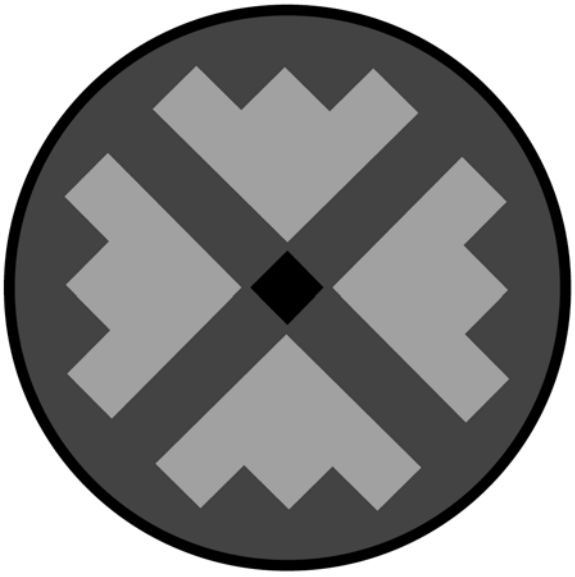


Table 3. Essential elements of basic, intermediate, and comprehensive best practice diabetes systems of care.

Basic Diabetes Systems of Care	Intermediate Diabetes Systems of Care Basic program *plus*:	Comprehensive Diabetes Systems of Care Basic and intermediate programs *plus*:	Examples
Community Resources and Policies			
– Identify outside resources (e.g., community, state, national, and industry resources). – Develop an easily accessible list of community resources.	– Establish mechanisms that support active and ongoing referral between providers and patients.	– Establish an active, functional network of community service providers.	– Ensure that tribal leadership actively supports the mobilization of community resources to meet patient needs. (Basic) – Refer patients to community programs, such as food banks, commodities, elderly nutrition services, day care, and transportation services. (Intermediate) – Include traditional and cultural institutions in referral networks. (Comprehensive)
– Establish dialogue among community agencies, and establish agreements to develop community partnerships.	– Form functional partnerships that develop supportive and complementary programs and policies.	– Network on an ongoing basis in order to develop and maintain formal supportive programs and resources.	– Form partnerships among the service unit, tribal program, and local fitness center for prediabetes interventions.
		– Designate individuals who are responsible for referring patients to easily accessible community service providers.	

(Table 3 continued on next page)

Table 3. Essential elements of basic, intermediate, and comprehensive best practice diabetes systems of care. (continued)

Basic Diabetes Systems of Care	Intermediate Diabetes Systems of Care Basic program *plus*:	Comprehensive Diabetes Systems of Care Basic and intermediate programs *plus*:	Examples
Organization leadership			
– Provide written statements that outline the organization leadership's commitment to improving diabetes care.	– Allocate resources (e.g., staff, space, and dollars) for diabetes care.	– Hold specific staff members accountable for diabetes care outcomes.	– Ensure that organization and tribal leadership and clinical staff work together to enhance diabetes care. (Basic) – Ensure that organization leadership allocates training dollars to improve diabetes care. (Intermediate) – Target awards and incentives that support improved diabetes care. (Comprehensive)
– Address comprehensive diabetes care in the organization's mission, vision, goals, and strategic plan.	– Develop and regularly review measurable diabetes care goals.	– Perform ongoing diabetes performance improvement activities.	– Include improvement in Government Performance and Results Act (GPRA) outcomes in individuals' performance plans. (Intermediate)
– Establish a process to address and improve problems in diabetes care. (Table 3 continued on next page)	– Use proven improvement strategies to address diabetes care problems.	– Use proven improvement strategies to improve diabetes outcomes proactively and on an ongoing basis.	– Establish ongoing diabetes performance plans. (Basic) – Ensure that organization leadership supports continuing diabetes audit activities. (Intermediate) – Use Failure Mode and Effects Analysis (FMEA) to identify problems and develop improvement strategies. (Comprehensive)

Table 3. Essential elements of basic, intermediate, and comprehensive best practice diabetes systems of care. (continued)

Basic Diabetes Systems of Care	Intermediate Diabetes Systems of Care Basic program *plus*:	Comprehensive Diabetes Systems of Care Basic and intermediate programs *plus*:	Examples
Patient self-management support			
– Develop or adopt a standardized needs assessment tool that is clear, easy to use, and retrievable.	– Perform a standardized needs assessment for most patients, and document their self-care activities.	– Regularly assess and document patient needs. Link this document to a treatment plan and ensure that it is readily available for use.	– Refer to the Indian Health Service (IHS) Integrated Diabetes Education Recognition Program for sample needs assessment tools in the *Sample Materials for Developing Quality Diabetes Education Programs* (available online at www.ihs.gov). (Basic) – Address health literacy skills and use innovative ways to communicate health information. (Intermediate)
– Ensure qualified staff are available to provide diabetes education services. – Ensure that one-on-one self-care education is available.	– Provide one-on-one and group self-care education by trained diabetes educators. Use information from the individual's needs assessment as the basis of instruction.	– Integrate patient empowerment and problem-solving methods into the approach for self-management education.	– Use patient empowerment strategies, such as readiness to learn, self-efficacy, confidence level, and motivational interviewing. (Intermediate)
– Establish a functional appointment and recall system for diabetes education. – Schedule routine self-management appointments.	– Assign a specific staff person with case management responsibilities to given patients.	– Enable the case manager to use a computerized database to recall patients and manage their treatment plans.	– Use Resource and Patient Management System (RPMS) case management and diabetes case management systems to manage patient care. (Comprehensive)

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Table 3. Essential elements of basic, intermediate, and comprehensive best practice diabetes systems of care. (continued)

Basic Diabetes Systems of Care	Intermediate Diabetes Systems of Care Basic program *plus*:	Comprehensive Diabetes Systems of Care Basic and intermediate programs *plus*:	Examples
Patient self-management support (continued)			
– Listen to and respect patients, and give them choices regarding their treatment plans.	– Actively involve patients in discussing and deciding their treatment plan. – Develop and implement support groups.	– Routinely assess patients and family members for their concerns. – Encourage patients and family members to join support groups and participate in peer mentoring.	– Use patient support groups and family support groups to help address patient and family concerns and questions. (Comprehensive)
– Learn behavior change skills. – Distribute written behavior change information that is culturally sensitive, literacy level appropriate, and based on patient interests and needs.	– Ensure trained staff are available by referral for one-on-one or group behavior change interventions.	– Ensure that behavior change interventions are available for most diabetes patients.	– Use behavior change strategies, such as goal setting, skills development, stimulus control, and cognitive restructuring. (Basic)

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Table 3. Essential elements of basic, intermediate, and comprehensive best practice diabetes systems of care. (continued)

Basic Diabetes Systems of Care	Intermediate Diabetes Systems of Care Basic program *plus*:	Comprehensive Diabetes Systems of Care Basic and intermediate programs *plus*:	Examples
Delivery system design: Services, programs, systems, and procedures			
– Establish a multidisciplinary diabetes team that meets regularly. – Ensure that the organization leadership gives a minimum of two health care providers the responsibility and authority to meet to address diabetes care issues. – Reach consensus on a standard diabetes care plan.	– Explicitly delineate the multidisciplinary team's role. – Designate one individual to coordinate teamwork, communicate with leadership, and advocate for diabetes care.	– Ensure that representatives from various disciplines are involved in resource allocation. – Designate one individual to coordinate diabetes care. Clearly define his or her responsibilities.	– Encourage behavioral health staff involvement in primary diabetes care. (Intermediate) – Outline (in written form) the diabetes care responsibilities of clinical and non-clinical staff, such as public health nurses, community health representatives, and community health aides. (Intermediate) – Ensure that access to specialty care is available by telephone, telemedicine, or referrals. (Comprehensive)
– Establish a functional appointment and recall system. – Schedule appointments according to established guidelines.	– Designate one individual to monitor patient utilization of services according to guidelines. – Ensure that options for flexible appointment lengths and types of visits are available.	– Customize visits according to patient needs and desires. – Ensure that multidisciplinary visits are available. – Ensure that alternative visit methods are available.	– Use case management approaches to identify care needs and recall patients. (Intermediate) – Ensure that multidisciplinary diabetes clinic encounters are available. (Comprehensive) – Ensure that group, home, and e-mail follow-up, as well as home telehealth visits, are available. (Comprehensive)

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Table 3. Essential elements of basic, intermediate, and comprehensive best practice diabetes systems of care. (continued)

Basic Diabetes Systems of Care	Intermediate Diabetes Systems of Care Basic program *plus*:	Comprehensive Diabetes Systems of Care Basic and intermediate programs *plus*:	Examples
Delivery system design: Services, programs, systems, and procedures (continued)			
– Develop a template for a written or electronic individual care plan, and ensure that providers can easily access it.	– Encourage selected providers to use the template for written or electronic individual care plans.	– Consistently use the template for written or electronic individual care plans.	

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Table 3. Essential elements of basic, intermediate, and comprehensive best practice diabetes systems of care. (continued)

Basic Diabetes Systems of Care	Intermediate Diabetes Systems of Care Basic program *plus*:	Comprehensive Diabetes Systems of Care Basic and intermediate programs *plus*:	Examples
Decision support: Information and training for providers			
– Ensure that evidence-based guidelines are available. – Encourage the use of evidence-based guidelines by the team and leadership.	– Incorporate the use of evidence-based guidelines into provider education and orientation.	– Integrate evidence-based guidelines into care through provider reminders. – Develop a mechanism for monitoring adherence to the guidelines.	– Refer to the *IHS Standards of Care for Patients with Type 2 Diabetes* for sample guidelines (available online at www.ihs.gov). (Basic) – Modify evidence-based guidelines to meet local needs. (Comprehensive)
– Support diabetes continuing education and ensure that opportunities for diabetes continuing education are available.	– Ensure that diabetes health care professionals receive diabetes education on an ongoing basis.	– Ensure that diabetes health care professionals receive regular, discipline-specific diabetes continuing education.	– Provide diabetes training for all levels of clinical care providers. (Basic)
– Share care guidelines with patients.	– Use care guidelines routinely during diabetes care interactions.	– Celebrate patients' achievement of guidelines and accomplishment of goals.	– Post easy-to-understand guidelines in clinic waiting rooms and exam rooms. (Basic)

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Table 3. Essential elements of basic, intermediate, and comprehensive best practice diabetes systems of care. (continued)

Basic Diabetes Systems of Care	Intermediate Diabetes Systems of Care Basic program *plus*:	Comprehensive Diabetes Systems of Care Basic and intermediate programs *plus*:	Examples
Clinical information systems: Collecting and tracking information			
– Develop, implement, and regularly update a functioning computerized registry.	– Query registry data to identify people in high-risk groups.	– Continually update registries, and integrate them with other health care data systems.	– Develop registries for people with problems such as microalbuminuria or a history of foot ulcers. (Intermediate)
– Develop the capacity to remind providers about needed care. – Ensure that the registry enables providers to easily recognize that someone has diabetes.	– Establish a mechanism to identify patients who need given interventions.	– During each diabetes visit, share specific information with the patient, such as last and current A1c, blood pressure, lipid levels, medications, whether the patient has seen a dietitian, whether the patient has had an EKG, and what immunizations the patient has had.	– Use the Diabetes Patient Care Summary. (Basic) – Before the patient's next visit, place the patient's diabetes audit report in his or her medical record. Highlight important items to address during the visit. (Intermediate) – Use electronic health record reminders. (Comprehensive)
– Establish a mechanism to monitor agreed upon care parameters. – Provide population-based outcome reports.	– Regularly monitor trends in ongoing outcomes, and communicate the trends to diabetes team members.	– Have a respected leader present the outcome trends to the diabetes team. Subsequent problem-solving discussion should occur among team members.	– Generate data from RPMS, such as the Clinical Indicators Reporting System. (Basic) – Include presentations and discussions on diabetes outcome reports on meeting agendas. (Comprehensive)
– Reach consensus on a standardized treatment plan, and make the treatment plan available.	– Develop individualized treatment plans that include self-management and clinical goals.	– Ensure that the care plan is readily accessible to all providers and guides care at every encounter.	– Place a copy of the patient's diabetes care plan in the diabetes section of the medical record. (Comprehensive)

Evaluating your diabetes system of care

Evaluation is important because it helps you see what is working and what is not working in your diabetes system of care. It will show you if adjustments or changes need to be made in order to improve your diabetes program. Evaluation also provides you with information that you can use to share your successes with patients, providers, tribal leaders, administrators, the community, funders, and other stakeholders.

Consider including the following data in your evaluation:

- Diabetes audit data for individuals and for the population of patients with diabetes.
- Clinical Indicators Reporting System (GPRA and IHPES) data.
- Other local measures, such as performance improvement and other outcome data.

Sustaining your diabetes system of care

Often, for diabetes goals to be reached, programs must be in place for more than a few years. Here are some helpful tips for sustaining your program:

- Secure long-term funding (i.e., non-grant funds) to meet your diabetes program's needs.
- Ensure that diabetes systems of care are included in the health care organization's long-term strategic plan.
- Orient new staff to diabetes care and their responsibilities.
- Provide ongoing diabetes training for staff members.
- Train and involve community members in the provision of diabetes services.
- Explore reimbursement opportunities for innovative diabetes care.
- Formally recognize accomplishments through incentives and awards.
- Include diabetes audit reports as an ongoing meeting agenda item.

Contacting others for help

Contacting other people involved in diabetes systems of care is important because they can help you get started. Your peers at other health care organizations can share their expertise, materials, and ideas, and can also tell you what has worked for them and what has not. This can help you avoid reinventing the wheel. Here are some tips on how to connect with others:

- Ask your Area Diabetes Consultant for the names of people who may be able to help you.
- Contact the IHS Division of Diabetes Treatment and Prevention for ideas. They may be able to point you in the right direction.
- Ask the IHS Integrated Diabetes Education Recognition Program for suggested contacts. They have names and contact information for people who work with IHS-accredited diabetes education programs.

- Flip through issues of *Health for Native Life Magazine*. The magazine profiles many diabetes programs throughout Indian Country. The articles may give you ideas for activities to try and people to contact.
- Review resources from the National Diabetes Education Program (NDEP). NDEP offers materials that will help your program get started, including information specifically for American Indians and Alaska Natives. You can access these resources at the website: www.ndep.nih.gov

References

Acton KJ, Shields R, Rith-Najarian S, Tolbert B, Kelly J, Moore K, Valdez L, Skipper B, and Gohdes D. Applying the diabetes quality improvement project indicators in the Indian Health Service primary care setting. *Diabetes Care*. 2001;24(1):22–26.

Acton K, Shields R, Rith-Najarian S, Tolbert B, Rhodes C, Moore K, Skipper B, and Gohdes D. Decreasing rates of proteinuria are associated with widespread use of ACE inhibitors in American Indians with diabetes. *Diabetes*. 2001;50(Suppl 2):Abstract 895-P.

Bodenheimer T. Helping patients improve their health-related behaviors: What system changes do we need? *Disease Management*. 2005;8(5):319–30.

Centers for Disease Control and Prevention. *Team Care: Comprehensive Lifetime Management for Diabetes*. Atlanta: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2001.

Cretin S, Shortell SM, and Keeler EB. An evaluation of collaborative interventions to improve chronic illness care: Framework and study design. *Evaluation Review*. 2004;28(1):28–51.

Diabetes Prevention Program (DPP) Research Group. The Diabetes Prevention Program (DPP): Description of lifestyle intervention. *Diabetes Care*. 2002;25:2165–71.

Glasgow RE, Wagner EH, Kaplan RM, Vinicor F, Smith L, and Norman J. If diabetes is a public health problem, why not treat it as one? A population-based approach to chronic illness. *Annals of Behavioral Medicine*. 1999;21(2):159–70.

Institute for Healthcare Improvement. The SPREAD Initiative. Numerous resources are available online at: www.ihi.org/IHI/Programs/CollaborativeLearning/TheSpreadInitiative.htm. Accessed January 2006.

Kerr EA, Gerzoff RB, Krein SL, Selby JV, Piette JD, Curb JD, Herman WH, Marrero DG, Narayan KM, Safford MM, Thompson T, and Mangione CM. Diabetes care quality in the Veterans Affairs Health Care System and commercial managed care: The TRIAD Study. *Annals of Internal Medicine*. 2004;141(4):272–81.

National Committee for Quality Assurance. Diabetes quality improvement project: Initial measure set. Available online at: www.ncqa.org/dprp/dqip2.htm#top. Accessed January 2006.

Rith-Najarian S, Ross C, Branchaud C, Gohdes D, Acton K, Simonson G, Weaver T, Bradley R, and Mazze R. Improving glycemic control in Native American communities: Staged diabetes management versus standard care. *Diabetes*. 1999;48(Suppl 2):Abstract 837.

Wagner EH, Davis C, Schaefer J, Von Korff M, and Austin B. A survey of leading chronic disease management programs: Are they consistent with the literature? *Journal of Nursing Care Quality*. 2002;16(2):67–80.

Weingarten SR, Henning JM, Badamgarav E, Knight K, Hasselblad V, Gano A Jr, and Ofman JJ. Interventions used in disease management programmes for patients with chronic illness—which ones work? Meta-analysis of published reports. *British Medical Journal*. 2002;325(7370):925.

Wilson C, Rith-Najarian S, Shields R, Rhodes C, Tolbert B, Moore K, Skipper B, and Acton K. What factors are correlated with metabolic control in American Indians with type 2 diabetes treated in primary care settings? *Diabetes*. 2001;50(Suppl 2):Abstract 412-P.

World Health Organization. *Innovative Care for Chronic Conditions: Building Blocks for Action.* Geneva: WHO, 2002. (The report and summary are available at the website: www.who.int/chronic_conditions/framework/en/. Accessed January 2006.)