# Indian Health Diabetes Best Practices:

# Diabetes Case Management


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# Indian Health Diabetes Best Practice: Diabetes Case Management

## Contents

## What is case management?

Case management is the strategy of assigning a health care professional, called a case manager, to serve as a guide and facilitator for a patient. The case manager is generally a non-physician, such as a nurse, dietitian, or pharmacist. The goal of case management is to achieve specific outcomes, such as improvement in patient satisfaction, resource utilization, and efficiency and coordination of services. Case management can be a practical and effective strategy for Indian Health Service (IHS), tribal, and urban Indian health organizations.

## Why is case management important?

Case management has been well researched, carefully analyzed, and applied in many settings, including American Indian and Alaska Native communities. Numerous studies have demonstrated the effectiveness of case management in improving health outcomes. Consider these facts:

- Nurse case management of diabetes increases the delivery of clinical services and contributes to improvements in blood sugar control when measured in periods of up to one year (Norris *et al*., 2002).
- In the IHS, case management improves blood sugar control as measured by improvements in A1c. It also improves self-monitoring, patient education, laboratory testing, as well as eye, foot, and dental exams (Wilson *et al*., 2005).
- Case management was a key strategy used in the Diabetes Prevention Program lifestyle intervention, where a 5–7% weight reduction resulted in a 58% decrease in diabetes incidence over a three-year period (Knowler *et al*., 2002).

Case management has also been shown to be effective in treating a number of diseases, conditions, and situations other than diabetes: psychiatric disorders, chronic congestive heart failure, geriatric care, and care initiated at the time of hospital discharge.

## Best practices for diabetes case management

The best practices for diabetes case management describe the best methods for:

- Identifying eligible patients for case management.
- Assessing the patient's needs.
- Developing, implementing, and monitoring individual care plans.
- Monitoring outcomes.

Table 1 summarizes the best practices for diabetes case management.

Table 1. Best practices for diabetes case management.

| Provider Recommendations | Best Practices |
|---|---|
| 1. **Identify eligible patients** for case management | ***Why?***<br>Patients who receive case management experience improvement in their level of blood sugar control, satisfaction with services, understanding of treatment goals, resource use, continuity of care, and efficiency and coordination of services (Norris *et al*., 2002; Wilson *et al*., 2005).<br><br>***How?***<br>– Identify and target all patients with prediabetes or diabetes.<br>– Identify and target subsets of patients with:<br>• Specific disease risk factors, such as people with impaired glucose tolerance (IGT), coexisting cardiovascular disease, or poor blood sugar control.<br>• High utilization of services as determined by number of visits or health care costs. |
| 2. Assess the **patient's needs** | ***Why?***<br>Assessing the patient's needs and readiness to make behavioral changes can help improve costs and patient outcomes, such as blood sugar control, blood pressure control, lipid levels, and quality of life (Norris *et al*., 2002).<br><br>***How?***<br>– Perform a comprehensive assessment of the patient's needs.<br>– Assess the patient's readiness to make changes in their diabetes management using Motivational Interviewing or Stages of Change.<br>• Motivational Interviewing is a counseling style that aims to change behavior by addressing the patient's difficulties in setting and meeting behavior change goals. The provider listens actively and reflectively, asks open-ended questions to encourage the patient to discuss feelings about behavior change, expresses acceptance and affirmation, and handles resistance to setting goals and making behavior changes without direct confrontation (Miller and Rollnick, 1995).<br>• Stages of Change is a method to assess readiness to change and includes five stages (Prochaska *et al*., 1994):<br>1. Precontemplation stage: Patients are not concerned about their weight. A discussion of their risk factors and the benefits of modest weight loss may be helpful. |

(Table 1 continued on next page)

Table 1. Best practices for diabetes case management. (continued)

| Provider Recommendations | Best Practices |
|---|---|
| 2. Assess the **patient's needs** (continued) | 2. Contemplation stage: Patients may be concerned about their weight but are not ready for action. A discussion of actions they may want to consider may be helpful.<br>3. Preparation stage: Patients have decided to take action but have not started. An encouraging discussion about actions to take may be helpful.<br>4. Action stage: Patients are taking action; lifestyle interventions and counseling may be helpful.<br>***5.*** Maintenance stage: Patients are keeping up with their actions and may benefit by continued support and praise. |
| 3. Develop, implement, and monitor **individualized care plans** | ***Why?***<br>Effective, individualized care plans have been associated with improved blood sugar control. Case management is effective both when delivered in conjunction with disease management and when delivered with one or more additional educational, reminder, or support interventions (Norris *et al*., 2002).<br>***How?***<br>– Assign case managers to coordinate diabetes care for patients in chosen target groups (e.g., patients with prediabetes or patients with diabetes).<br>– Implement case management as a single or multi-component intervention. For example, interventions that can be combined with case management include self-care education, home visits, telephone outreach, telemedicine, and patient reminders. Interventions combined with disease management have been shown to further reduce A1c levels than with case management alone (Norris *et al*., 2002).<br>– Address at least one of the following for coordinated care and follow-up outcomes:<br>• Blood sugar monitoring.<br>• Medication use.<br>• Nutrition.<br>• Physical activity.<br>• Smoking cessation. |

(Table 1 continued on next page)

Table 1. Best practices for diabetes case management. (continued)

| Provider Recommendations | Best Practices |
|---|---|
| 4. **Monitor outcomes** | ***Why?***<br>Monitoring the outcomes of individuals or populations is essential to determine the effectiveness of case management (Norris *et al*., 2002).<br><br>***How?***<br>Consider measuring the following:<br>– Clinical outcomes such as A1c, blood pressure, lipid levels, and weight.<br>– Physical activity levels.<br>– Patient satisfaction.<br>– Health care service utilization.<br>– Quality of life.<br>– Costs.<br>– Hospital admissions. |

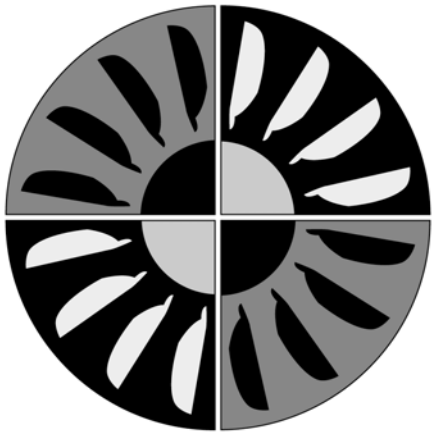
## Best practices for health care organizations

A health care organization that wants to improve diabetes case management must be motivated and prepared for change throughout the entire organization. The organization's leadership must identify diabetes case management as important work. They must also develop clear improvement goals, policies, and effective improvement 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.

| Organization Recommendations | Best Practices |
|---|---|
| **System and programmatic changes** | ***Why?***<br>Health care organizations that are ready to implement case management can help providers and educators: (1) target patients more effectively; (2) design interventions that are more acceptable to patients; and (3) design interventions that help improve blood sugar control monitoring by physicians. Changes in health care organizations have also been associated with increased delivery of appropriate diabetes care (Norris *et al*., 2002).<br>***How?***<br>The following activities may help improve diabetes case management:<br>– Assess the organization for available infrastructure and the capacity to deliver case management interventions and provide desired services.<br>– Use standing orders, practice guidelines, and clinical pathways that stakeholders have agreed upon.<br>– Use evidence-based features of case management to improve, monitor, and evaluate diabetes outcomes. (Please see the essential case management functions listed in Table 1.) |



## Essential elements of best practice diabetes case management programs

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 case management programs.

*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.

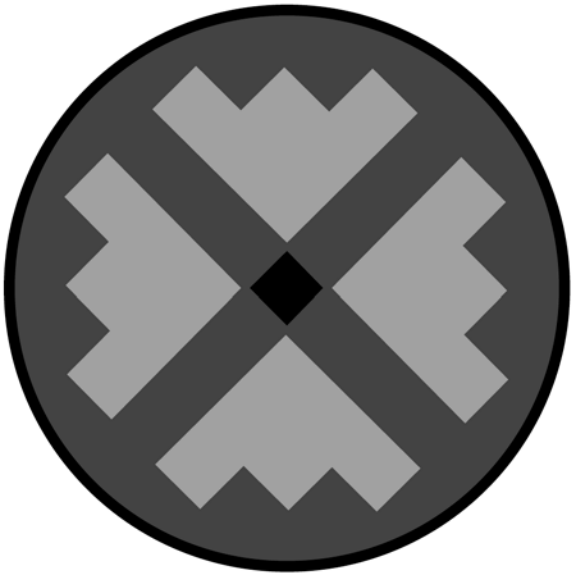


Table 3. Essential elements of basic, intermediate, and comprehensive best practice case management programs for patients with diabetes.

| Basic<br>Diabetes Case Management Programs | Intermediate<br>Diabetes Case Management Programs<br>Basic program *plus*: | Comprehensive<br>Diabetes Case Management Programs<br>Basic and intermediate programs *plus*: | Examples |
|---|---|---|---|
| **Community resources and policies** | | | |
| – Obtain evidence of community support through proclamations and other documentation.<br>– Identify all potential resources in the community. | – Acquire knowledge of health behaviors and practices in the community.<br>– Commit to use any community resources that meet patients' needs. | – Develop memoranda of understanding with community programs for referral processes.<br>– Develop communication processes through business partner agreements or releases of information.<br>– Evaluate programs using outcomes measures to continuously assess community resources. Use evaluation findings to identify problems, gaps, needs, and solutions. | – Conduct an inventory of education programs, clinical services, third party resources, and providers.<br>– Conduct an inventory of community fitness resources and activity programs. |

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Table 3. Essential elements of basic, intermediate, and comprehensive best practice case management programs for patients with diabetes. (continued)

| Basic<br>Diabetes Case Management Programs | Intermediate<br>Diabetes Case Management Programs<br>Basic program *plus*: | Comprehensive<br>Diabetes Case Management Programs<br>Basic and intermediate programs *plus*: | Examples |
|---|---|---|---|
| **Organization leadership** | | | |
| – Support case management strategies to complement existing services.<br>– Provide evidence of organizational support through policies and procedures, structures, and accountability processes.<br>– Provide resources necessary to support a case manager, including space, budget, equipment and supplies, position description, and orientation plan.<br>– Include an organizational structure that outlines the relationship to the diabetes team, defined performance standards, chief executive officer (CEO) performance contracts, and supervision plans in the management plan. | – Develop written policies and procedures regarding standing orders, practice guidelines, and clinical pathways. | – Develop defined outcomes that are amenable to the case management strategy.<br>– Evaluate programs using outcomes measures to continuously assess organizational infrastructure.<br>– Use evaluation findings to identify problems, gaps, needs, and solutions. | – Allocate staff time or dedicate a position for case management.<br>– Monitor outcomes, such as diabetes prevention, blood sugar and blood pressure control, standards of care, health care service utilization, and cost control. |

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Table 3. Essential elements of basic, intermediate, and comprehensive best practice case management programs for patients with diabetes. (continued)

| Basic<br>Diabetes Case Management Programs | Intermediate<br>Diabetes Case Management Programs<br>Basic program *plus*: | Comprehensive<br>Diabetes Case Management Programs<br>Basic and intermediate programs *plus*: | Examples |
|---|---|---|---|
| **Patient self-management support** | | | |
| – Identify and agree upon the target population.<br>– Conduct an inventory of self-management programs and support groups, and the eligibility for those programs.<br>– Ensure that the case manager has the ability to meet with the patient and family, and to understand their needs. | – Establish a method for two-way communication between the self-management program and case manager, and between the health care provider and case manager.<br>– Provide education within the framework of an IHS-certified (or equivalent) curriculum. | – Ensure the case manager has access to and use of the patient medical record.<br>– Evaluate programs using outcomes measures to continuously assess patient self-management resources.<br>– Use evaluation findings to identify problems, gaps, needs, and solutions. | – Identify fitness resources and community activity programs.<br>– Assess health behaviors, knowledge, and practices within the community. |
| **Delivery system design: Services, programs, systems, and procedures** | | | |
| – Establish a diabetes team (n.b., case management is not a substitute for a diabetes team).<br>– Create or adopt scopes of service, standards of care, and specific curricula.<br>– Design case management interventions.<br>– Clearly specify goals and expectations for goals.<br>– Define clinical and non-clinical policies and procedures.<br>– Develop methods for continuity of care. | – Hire or contract with a case management provider, or assign case management duties to an existing employee with dedicated time, resources, and skills.<br>– Implement case management interventions. | – Focus on clinical and behavioral measures. | – Use materials from the IHS Integrated Diabetes Education Recognition Program to help develop a diabetes team.<br>– Identify the roles and responsibilities for members of the diabetes team.<br>– Use practice guidelines and standing orders.<br>– Appoint a liaison or an on-call provider who the case manager can contact to discuss patient needs when the primary care provider is unavailable. |

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Table 3. Essential elements of basic, intermediate, and comprehensive best practice case management programs for patients with diabetes. (continued)

| Basic<br>Diabetes Case Management Programs | Intermediate<br>Diabetes Case Management Programs<br>Basic program *plus*: | Comprehensive<br>Diabetes Case Management Programs<br>Basic and intermediate programs *plus*: | Examples |
|---|---|---|---|
| **Decision support: Information and training for providers** | | | |
| – Ensure providers are educated about case management and supportive of the approach.<br>– Identify processes for involving physicians in case management. | – Establish standing orders, practice guidelines, and clinical pathways that are demonstrable and agreed upon.<br>– Develop and implement public marketing strategies on the role of standards of care and case management. | – Use evaluation findings to provide feedback to the health care system and providers to: (1) inform them of gaps and needs; and (2) work collaboratively to problem solve and identify a range of solutions. | – Use IHS Standards of Care for Diabetes.<br>– Use Staged Diabetes Management practice guidelines.<br>– Use diabetes curricula, such as the Diabetes Prevention Program curriculum or the IHS *Balancing Your Life and Diabetes* curriculum.<br>– Use peer leaders and program champions who can support case managers.<br>– Publicly market the role of standards of care and case management. |

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Table 3. Essential elements of basic, intermediate, and comprehensive best practice case management programs for patients with diabetes. (continued)

| Basic<br>Diabetes Case Management Programs | Intermediate<br>Diabetes Case Management Programs<br>Basic program *plus*: | Comprehensive<br>Diabetes Case Management Programs<br>Basic and intermediate programs *plus*: | Examples |
|---|---|---|---|
| **Clinical information systems: Collecting and tracking information** | | | |
| – Gather data from available sources, including the diabetes registry, performance audits, and systems or processes required to identify and recruit members of the target population.<br>– Track interventions and measure the effectiveness of interventions at the individual and population levels. | – Use registries and available data to perform the five essential case management functions: (1) identify, conduct outreach for, and recruit eligible patients; (2) assess the patient within the context of the patient's and health system's readiness; (3) develop an individual care plan; (4) implement the care plan; and (5) monitor outcomes.<br>– Track and review process measures, such as measurement of referrals for examinations, laboratory testing, and exposure to patient education. | – Evaluate programs using outcome measures to continuously assess and reassess organizational infrastructure, community resources, and patient self-management resources to identify challenges and solutions.<br>– Use evaluation findings to provide feedback to the patient, health care system, providers, and the community to inform them of gaps and needs.<br>– Work collaboratively to solve problems and identify a range of solutions. | – Develop diabetes, case management, and kidney disease registries.<br>– Ensure that case managers have access to clinical registries and patient medical records within the appropriate privacy regulations.<br>– Use the Diabetes Management System, Diabetes Patient Care Summary, and diabetes audits for collecting and tracking information.<br>– Use reminder systems. |

## Evaluating your diabetes case management program

Evaluation is important because it helps you see what is working and what is not working in your diabetes case management program. It will show you if adjustments or changes need to be made in order to improve your diabetes case management 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 when developing your program and evaluation:

- Process outcomes, such as patient satisfaction or service utilization.
- Health and quality of life outcomes.
- Economic outcomes, such as cost, transportation use, and hospital admissions.
- Outcome measures, such as A1c and lipid testing, diet instruction, self-monitoring of blood sugar, as well as eye, foot, and dental examinations.

Potential sources of evaluation data include:

- IHS Diabetes Care and Outcomes Audit.
- Patient satisfaction surveys.
- Contract health service referrals.
- Resource and Patient Management System (RPMS) workload data.

## Sustaining your diabetes case management program

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

- Be ready to bill for diabetes case management services when Medicare designates case management as a reimbursable service.
- Use *Special Diabetes Program for Indians* grant funds to support diabetes case management.
- Demonstrate to organization leadership the cost savings associated with case management. Savings might be achieved through decreased hospitalization, effective medication use, and prevention of complications.

## Contacting others for help

Contacting other people involved in diabetes case management 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 worked. 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.

## Real-world best practice programs

**Claremore Indian Hospital Model Diabetes Program**

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Robin Thompson, MS, APRN, BC-ADM, CDE, Diabetes Nurse Specialist

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Claremore, Oklahoma 74017

This program is best known for its comprehensive diabetes education program; however, case management strategies have been integrated throughout the program to achieve diabetes goals.

**National Institutes of Health Diabetes Prevention Program**

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Carol Percy, RN

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This program used a prevention case management approach to implement a lifestyle balance program.

**Phoenix Indian Medical Center Diabetes Center of Excellence**

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This program has many years of experience in case management. It is also a large program that has been peer evaluated and published.

**Red Lake Hospital**

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**Urban Indian Health Institute**

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**Wewoka IHS Clinic**

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This program has many years of experience in case management and has documented its improvements in population-based outcomes.

## Helpful websites

**Community Guide**

This website provides information on diabetes case management interventions.

- http://thecommunityguide.org/diabetes/

**IHS Division of Diabetes Treatment and Prevention**

- www.ihs.gov/medicalprograms/diabetes/index.asp

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