Indian Health Service Division of Diabetes Treatment and Prevention

Balancing Your Life and Diabetes

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Department of Health and Human Services
Public Health Service

Indian Health Service
Division of Diabetes Treatment and Prevention
5300 Homestead Road NE
Albuquerque, NM 87110
Telephone: (505) 248-4182
Fax: (505) 248-4188
Email: diabetesprogram@ihs.gov
Web Site: www.diabetes.ihs.gov

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Preface

This curriculum was developed through the efforts of many people.

We are grateful to the American Diabetes Association for permission to use *Life with Diabetes: A Series of Teaching Outlines* as a template for the development of *Balancing Your Life and Diabetes*.

We appreciate the dedication and expertise of the **Curriculum Workgroup** members:
Cindy Bochenski, RN-C, CDE, Phoenix Service Unit Diabetes Program, Phoenix, AZ
Tammy Brown, MPH, RD, BC-ADM, CDE, IHS Division of Diabetes Treatment and Prevention, Albuquerque, NM
Gwen Hosey, MS, ARNP, CDE, Nevada Diabetes Program, Carson City, NV
JoAnne Lafley, MSN, CRNP, CDE, Indian Health Service Contractor
Pat Lundgren, RN, MN, EdD, CDE, Whiteriver Indian Hospital Diabetes Program, Whiteriver, AZ
Denelle Martin, RD, CDE, Salt-River Pima-Maricopa Indian Community Diabetes Program, Scottsdale, AZ
Carolyn Ross, RD, MS, CDE, Indian Health Service Contractor
Michelle Ruslavage, BSN, RN, CDE, Claremore Diabetes Program, Claremore, OK
Robin Thompson, MS, APRN, BC-ADM, CDE, Oklahoma Area Diabetes Program, Oklahoma City, OK
Lorraine Valdez, BSN, MPA, CDE, IHS Division of Diabetes Treatment and Prevention, Albuquerque, NM

Additional contributors:

Allison Blacksmith, MS, RD, LD, Shoshone-Bannock Tribes, Fort Hall Service Unit, Fort Hall, ID
Charmaine Branchaud, RN, CDE, Red Lake Band of Chippewa Indians, Red Lake, MN
Randy W. Burden, PharmD, MDiv, PhC, NCPS-PP, CDE, BC-ADM, Santa Fe Hospital, Santa Fe, NM
Edith Clark, RD, CDE, Phoenix Indian Medical Center, Phoenix, AZ
Melia Delp, RN, Yakama Nation Diabetes Program, Toppenish, WA
Laurie Elian, RD, LD, CDE, Micmac Diabetes Education Program, Presque Isle, ME
Monika Franz, RD, Yakama Nation Diabetes Program, Toppenish, WA
Charla Gordon, RD, MA, CHES, Sault Ste. Marie Tribe of Chippewa Indians Health Center, Sault Ste. Marie, MI
JoAnn Holland, RD, CDE, Parker PHS Indian Hospital, Parker, AZ
Sharol Hopwood, RD, MS, CDE, Zuni PHS Indian Hospital, Zuni, NM
Jerolyn Ireland, RN-C, Micmac Diabetes Education Program, Presque Isle, ME
Lynda Johnson, RN, BSN, CDE, Diabetes Educational Center, Choctaw, MS
Kristen Klinefelter, RD, LD, Diabetes Center for Excellence, Cass Lake, MN
Regina Lamar-Whitewolf, MHR, Anadarko Wellness Center, Anadarko, OK
Mark McWhorter, MS, LPC, LBP, Clinton Indian Hospital, Clinton, OK
Theresa Moler, RN, Osage Nation Diabetes Program, Pawhuska, OK
Kelly Moore, MD, IHS Division of Diabetes Treatment and Prevention, Albuquerque, NM
Cynthia Nickerson, RN, CDE, Kodiak Area Native Association, Kodiak, AK
Terry Raymer, MD, CDE, United Indian Health Services, Arcata, CA
Matthew Rydberg, MD, Whiteriver Indian Hospital, Whiteriver, AZ
Melanie Sipe, RD, CDE, Claremore Diabetes Program, Claremore, OK
Rosalie Smith, MS, RD, CDE, Clinton Service Unit, Clinton, OK
Bernadine Toya, RN, CDE, Navajo Area Diabetes Program, Shiprock, NM
Claire Turner, RD, Lawton Diabetes Program, Lawton, OK

Sherrie Vanatta, RD, MEd, CDE, Phoenix Indian Medical Center, Phoenix, AZ
Karen Villard, RN, Tule River Indian Health Center, Porterville, CA
Whiteriver Indian Hospital Staff, Whiteriver, AZ
Wynona Woolf, RD, MPH, Blackfeet Community Hospital, Browning, MT

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We appreciate the efforts and thoroughness of the **2009 Curriculum Revision Team:**

Tammy Brown, MPH, RD, BC-ADM, CDE, IHS Division of Diabetes Treatment and Prevention, Albuquerque, NM

CDR Christopher C. Lamer, PharmD, MHS, BCPS, CDE, NCPS, IHS Office of Information Technology/Health Education, Albuquerque, NM

Cecelia Butler, MS, RD, CDE, CDE Consultant for IHS Division of Diabetes Treatment and Prevention, Santa Fe Service Unit Diabetes Project Manager, Santa Fe, NM.

Special thanks are given to Kayano Design/Write, Rochester, Washington, for design, preparation, and revision of the materials.

You may use any of the materials in this curriculum and make changes to adapt them to your specific needs. We request that any adapted materials be credited with the following statement:

> These materials were adapted from *Balancing Your Life and Diabetes*, Indian Health Service, 2010.

We hope you find the curriculum useful for diabetes self-management education in your community. Please forward any comments or suggestions to the address below.

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To order FREE copies of *Balancing Your Life and Diabetes*, go to: www.diabetes.ihs.gov, click on *Online Catalog*, and then *Educational Resources for Patients with Diabetes*.

About the Art

Art Restrictions

The art appearing in this curriculum is copyrighted and is the property of the Patrick DesJarlait Estate. It may only be copied exactly as it appears on the page, with the image in its entirety and used as a curriculum page.

Art Titles

Front Cover: Maple Sugar Spring, 1970

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About the Artist

Patrick DesJarlait (1921-1972) was a well-known artist who devoted his talents to painting pictures of the lives of the Chippewa on Red Lake Indian Reservation in northern Minnesota. Through his art, Mr. DesJarlait demonstrated his people's love and respect for their heritage and their land.

Many thanks to the DesJarlait family for allowing the art to be used in this curriculum. While producing the curriculum, stories of Patrick DesJarlait's love of his people and his dedication to education emerged. Mr. DesJarlait spent his final years visiting schools to encourage young people to pursue education and to learn about their heritage.

Introduction

Purpose:

The primary purpose of the *Balancing Your Life and Diabetes* curriculum is to provide health professionals working in American Indian and Alaska Native communities with a framework for diabetes education in a one-on-one or group setting.

Description:

This curriculum provides basic information about type 2 diabetes, diabetes self-care and general health care practices. It addresses the 10 content areas outlined in the *National Standards for Diabetes Self-Management Education* (Diabetes Care, May 2000).

Diabetes teams may use the curriculum in whole or in part, tailoring it to the needs of the person with diabetes (identified in the individual educational needs assessment), their family and their community. Additional materials may be given to the learners (participants) on topics of interest or advanced topics, that are not covered in this curriculum.

The information included in the core teaching sessions (outlines) comes from many sources and has been reviewed by content experts. **Local instructional staff needs to review, adapt and update content as appropriate.**

This curriculum is only one component of an educational program and educational process. It is not a substitute for staff development and education, nor is it intended to teach the instructor diabetes content or the "how-to" of the teaching process. Health professionals will be effective teachers when they learn diabetes care and methods of behavior change, teaching and counseling before they engage in diabetes education activities.

Organization:

This curriculum manual is organized under 5 tabbed sections as follows:

Tab I: Introduction
This section outlines the curriculum's purpose, description, organization, delivery options and session structure. It also offers teaching tips and information on teamwork and for learners (participants) with special needs.

Tab II: Learning Objectives and Education Codes
This section lists all curriculum Learning Objectives and identifies the appropriate Indian Health Service (IHS) Patient and Family Protocols and Education Codes for diabetes education documentation on the Patient Care Component (PCC) in the medical record. An example of how to document diabetes education on the PCC using the Education Codes is included.

Tab III: Core Teaching Sessions
Each session includes the following:

- Statement of Purpose
  - This is a summary of the intent of the lesson.
- Prerequisites

- This describes the recommended learner knowledge/skill level needed prior to attending the session.

- Learning Objectives
  - These are statements of the participant learning that is expected as a result of attending this session. The last 3 objectives for each content area relate to goal setting behavior.
- Education Codes
  - Education codes for PCC documentation are listed for each learning objective. The last 3 codes for each content area document goal setting behavior.
- Materials
  - This includes suggested teaching materials for each session. Visuals are provided and may be photocopied. Additional materials are suggested. Instructors may revise or add materials. For example, medicine handouts can be revised to reflect your local formulary. Local *resource lists* need to be added. Local instructional staff need to review material for accuracy and cultural appropriateness and adapt and update it as needed. For example, information in the curriculum sessions is more current than information in some of the Indian Health Service booklets provided. Instructors also need to assess the reading level of participants and use materials appropriate for them. See Resource Directory and Visuals in the Appendix for information on ordering teaching materials.
- Method of Presentation
  - This describes a suggested teaching approach for the session. (See Teaching Tips, p. XIII.)
- Content Outline
  - This includes the general concepts and details for each learning objective as well as teaching tips. The individual needs of each learner will determine content provided. It is not expected, nor advised, that instructors teach the content exactly as outlined. For example, the insulin administration content is recommended for people who are starting, or are on, insulin. Local instructional staff needs to review, adapt and update content as needed. It is important to reach consensus on recommendations in the curriculum. For example, target blood sugar goals in the curriculum are for whole blood glucose. Local programs may choose to convert goals to plasma glucose or use different goals. Instructors also need to tailor words to those used in their community. For example: blood sugar vs. blood glucose or blood lipids vs. blood fats.
- Skills Checklist
  - These are statements of the participant skills that are expected to be acquired as a result of attending this session.
- Evaluation Plan
  - A suggested evaluation plan is included with each session. The educational process is not complete without the evaluation of the outcomes achieved. Some of the ways this can be done include:
    - Comparison of pre- and post-program knowledge/skill/learning needs
    - Behavior change evaluation through rating how well participants achieve their personal goals
    - Comparison of pre- and post-program clinical outcomes, such as standards of care completion
- Documentation Plan
  - This outlines the documentation of education, goal setting and ongoing evaluation and reassessment that needs to be included in the participant's medical record.
    See Tab II for information on PCC documentation using the education codes.

- Diabetes and Real Life Activities
  - Application of knowledge is often more difficult to learn and evaluate than the knowledge itself. These discussion activities, included at the end of each session, may be used with groups or individuals for further problem-solving and goal setting.

Tab IV: Supplemental Teaching Sessions
This section is provided for programs to add teaching sessions (outlines) developed by the Indian Health Service in the future, developed by other sources and/or developed locally.

Tab V: Appendix
This section includes additional information to assist instructors with the use of this curriculum, including:

- Resource Directory
  - This includes a listing of resources for audiovisual and written materials, health professional and consumer organizations, publications and Internet sites.
- Supplemental Readings
  - This is a bibliography recommended by diabetes experts to enhance instructors' knowledge and skills and provide further information on curriculum content.
- Visuals: Listing, Order Form and Sources
  - This includes a list of the Visuals Provided and Additional Materials described in the "Materials Needed" section of each session. Information on ordering Indian Health Service materials and sources for additional materials are included.

Delivery Options:

This curriculum may be used to provide diabetes education in a variety of ways, including:

- several weekly classes
- one or 2-day classes
- combination of class and one-on-one sessions
- one-on-one sessions
- integrating learning into an existing activity, such as a support group

Instructors need to review the entire curriculum and how it fits together. They need not present the sessions in the same order in which they appear in this curriculum manual; the order will vary based on the assessed needs of the learners. For example, instructors may need to introduce the concept of Stages of Change in Session 3 before learners identify changes they can make in Sessions 1 and 2. Recommended prerequisites are listed for some sessions.

The length of time needed to teach each session will also vary. The literature supports that a minimum of 6 hours of education are generally needed to meet self-management needs (Brown, 1992).

Instructors need to be prepared for teaching/facilitating sessions. This includes becoming familiar with:

- curriculum
- teaching materials
- icebreakers

- questions for facilitated discussion
- audiovisual equipment and materials

Session Structure:

Group classes may be structured in a variety of ways. Instructors may consider the following suggestions:

Before the Session

- plan to hold classes away from clinic
- arrange chairs in a circle to encourage discussions and sharing of stories
- provide flipchart or whiteboard to list participant responses, questions, concepts, etc.
- provide participants with notebooks to hold class materials
- provide note paper with session title and the key concepts for that session

During the Session

- take attendance
- have visuals for each session and past sessions available
- provide healthy snacks and/or cooking demonstration
- include a brief stretch/physical activity

After the Session

- have participants evaluate each class or session
- include instructors' contact information for participants
- offer one-on-one make-up sessions whenever possible
- follow-up with "no shows"

Teaching Tips:

It is important for instructors to be familiar with community culture. The curriculum is written for the instructors. Language appropriate for the community needs to be used to teach the content. The content for each session is written in the third person. Some communities are not comfortable with the use of second person (i.e."you"/"your") in education dialogue. Instead, they prefer the use of third person (i.e. "one"/"a person"/ "a woman"). Instructors need to use the appropriate words for their community. See discussion of word choice in Content Outline (Introduction, p. X).

Encourage participants to have a family member or significant other attend sessions with them.

Effective education is more than the transmittal of information. Instructors are encouraged to use interactive teaching strategies rather than presenting information only through lectures and audiovisuals. It is okay if the instructor is not talking. They need to encourage the participants to talk to each other, share personal experiences and stories, try out new ideas and skills and enjoy themselves. Instructors also need to provide learners the chance to express feelings and emotions regarding the session content.

At the beginning of a session, instructors need to create an accepting and relaxed environment. Allow time for participants to get to know and interact with each other. One way to do this is through "icebreaker" activities. Some icebreaker activities are:

- Ask participants to partner with someone and spend a few minutes learning about each other. Then ask them to introduce their partner to the group.
- Ask participants to think about 2 words to describe themselves that begin with the same letter as their first name. Ask each of them to share those words with the group. This activity can also be done with a partner.

See the Resource Directory in the Appendix for more icebreaker ideas.

One effective teaching approach is facilitated group discussion. Ask participants what questions or topics they would like to talk about during the session and then list responses. Build the session content based on the participants' areas of interest. Keep track of topics discussed. Since the instructor is familiar with the content and learning objectives in the curriculum, he or she can ensure that the comprehensive curriculum is presented through the questions and topics participants have identified.

Encourage participants to try new behaviors between sessions and see what the results are. This gives them valuable life experiences and generates new questions and topics for further discussion at the next session.

Because participants will have a variety of preferred learning styles (identified during the individual educational needs assessment), it is helpful for instructors to provide a variety of learning activities and use a variety of teaching techniques. Some techniques and activities instructors may use to assist participants with learning include:

- brainstorming
- case studies
- community people sharing experiences (testimonials) invite local experts, tribal leaders and healers to share traditional practices
- computers/interactive training
- demonstration
- discussion (facilitated)
- door prizes and incentive gifts
- games
- guest speaker
- homework/self-study
- out-of-class activity using a community event
- printed/audiovisual material
- role-playing
- self-assessment
- skills training
- storytelling
- talking circle
- treasure hunt
- values clarification exercises

Refer to the Instructor's Notes column in the Content Outline of each session for specific examples of these teaching techniques and activities.

Teamwork:

All instructors are encouraged to attend all of the group sessions whenever possible and be available to answer questions. This helps instructors:

- build their relationship with the learner
- be familiar with participants' achievement of behavioral goals and learning objectives
- be familiar with participants' follow-up needs

Instructors need to assure that the curriculum content is offered consistently. They are encouraged to attend classes when a guest speaker or other resource person is providing instruction.

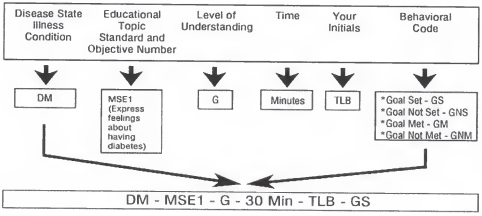
It is important for instructors to communicate with each other about questions and issues that arise during instruction so that they can meet the participants' learning needs.

Participants with Special Needs:

Special needs of participants are identified during the individual educational needs assessment. These needs may include vision or hearing impairment, need for an interpreter, low literacy skills or a physical or psychological condition that affects the learning process. The instructor needs to accommodate special learning needs/limitations during education sessions. See the Resource Directory for further information on low literacy and visual impairment.

Learning Objectives and Education Codes

This section includes all learning objectives and education codes used in this curriculum. Instructors who use the PCC Ambulatory Encounter Record need to document all diabetes education in the Patient Education Section of the PCC using the Patient and Family Education (PFE) Protocols and Codes for Diabetes. The suggested format for documenting diabetes education is as follows:



For more more information on the PFE Protocols and Codes go to the IHS website **www.ihs.gov**, click on **Nationwide Programs and Initiatives**, click on **Patient Education Protocols and Codes**, click on **Diabetes Codes.**

Session 1

DM-DP	**What is Diabetes?**
Outcome:	**The individual/family will have a basic understanding of the definition, pathophysiology and treatment of type 2 diabetes.**
DM-DP1	Provide a simple definition for diabetes in their own words.
DM-DP2	Discuss the differences between type 1 and type 2 diabetes.
DM-DP3	Explain how the body normally uses food.
DM-DP4	List 2 or more risk factors for developing diabetes.
DM-DP5	Describe the impact of insulin resistance in diabetes.
DM-DP6	List 2 or more signs or symptoms of high blood sugar.
DM-DP7	State the range for normal fasting blood sugar.
DM-DP8	State a normal blood sugar range 1-2 hours after a meal.
DM-DP9	Explain that high blood sugar can cause damage to the nerves and blood vessels in the eyes, heart, kidneys and feet.
DM-DP10	List 2 or more diabetes self-care actions necessary to reach target blood sugar goals.

DM-DPGS	State or write one change to make for diabetes self-care.
DMC-DPGNS	Behavior goal not set (follow-up).
DM-DPGM	Behavior goal met (follow-up).
DM-DPGNM	Behavior goal unmet (follow-up).

Session 2

DM-MSE	**Diabetes and Mind, Spirit and Emotion**
Outcome:	**The individual/family will understand the emotional impact of diabetes on their personal lives.**
DM-MSE1	Express feelings about having diabetes.
DM-MSE2	Discuss one or more ways diabetes has affected his/her life and/or the lives of their family members and significant others.
DM-MSE3	Identify their support person(s).
DM-MSE4	Share past experiences in dealing with health or other kinds of problems.
DM-MSE5	Explain the body's response to stress.
DM-MSE6	Discuss ways to handle stress.
DM-MSEGS	State or write one way to handle a stressful situation.
DMC-MSEGNS	Behavior goal not set (follow-up).
DM-MSEGM	Behavior goal met (follow-up).
DM-MSEGNM	Behavior goal unmet (follow-up).

Session 3

DM-BG	**Making Healthy Changes**
Outcome:	**The individual/family will have a basic knowledge of the process of behavior change and goal setting.**
DM-BG1	State in simple terms what a goal is.
DM-BG2	Discuss personal habits.
DM-BG3	Identify desirable behavior changes.
DM-BG4	Describe the process for making personal change.
DM-BGGS	State or write a plan to change one or more behaviors.

DMC-BGGNS	Behavior goal not set (follow-up).
DM-BGGM	Behavior goal met (follow-up).
DM-BGGNM	Behavior goal unmet (follow-up).

Session 4

DM-N	**Healthy Eating**
Outcome:	**The individual/family will understand the basics of healthy eating.**
Section 1:	**Introduction to Healthy Eating**
DM-N1	Describe the effect of food on diabetes.
DM-N2	State that healthy food choices are good for the person with diabetes and their whole family.
DM-N3	Describe how timing and consistency of food can help people with diabetes reach their target blood sugar goals.
DM-N4	Describe the effect of portion sizes on blood sugar.
DM-N5	State that eating less sugar and fat can help lower blood sugar.
DM-N6	State how keeping a record of food eaten can help people with diabetes reach their target blood sugar goals.
DM-NGS	State or write a personal plan for making healthy food choices.
DMC-NGNS	Behavior goal not set (follow-up).
DM-NGM	Behavior goal met (follow-up).
DM-NGNM	Behavior goal unmet (follow-up).
Section 2:	**Basics of Healthy Eating**
DM-N7	State 2 or more benefits of healthy food choices for the person with diabetes.
DM-N8	Record a day's meal onto a food record.
DM-N9	Discuss the basic food groups.
DM-N10	Identify the food groups high in carbohydrates and recognize their effect on blood sugar.
DM-N11	State that weight loss can help people with diabetes reach their target blood sugar goals.
DM-N12	Discuss how to find reliable resources for nutrition facts and answers to questions.
DM-NGS	State or write a personal plan for making healthy food choices.
DM-NGNS	Behavior goal not set (follow-up).

DM-NGM	Behavior goal met (follow-up).
DM-NGNM	Behavior goal unmet (follow-up).
Section 3:	**Heart Healthy Eating**
DM-N13	State that heart healthy food choices are good for the person with diabetes and their whole family.
DM-N14	Identify foods that increase the risk for heart disease.
DM-N15	Identify foods that decrease the risk for heart disease.
DM-N16	Identify 2 or more ways to choose foods to lower the risk for heart disease.
DM-NGS	State or write a personal plan for making healthy food choices.
DM-NGNS	Behavior goal not set (follow-up).
DM-NGM	Behavior goal met (follow-up).
DM-NGNM	Behavior goal unmet (follow-up).

Session 5

DM-EX	**Moving to Stay Healthy**
Outcome:	**The individual/family will understand the relationship of physical activity in achieving and maintaining blood sugar control by making a personal physical activity plan.**
DM-EX1	List 2 or more benefits of regular physical activity.
DM-EX2	State effects of physical activity on blood sugar.
DM-EX3	Discuss kinds of physical activity.
DM-EX4	Discuss time and frequency of physical activity.
DM-EX5	Discuss simple ways to measure intensity of physical activity.
DM-EX6	Discuss medical clearance issues for physical activity.
DM-EX7	List one or more ways to stay safe during physical activity.
DM-EXGS	State or write a personal plan for physical activity.
DM-EXGNS	Behavior goal not set (follow-up).
DM-EXGM	Behavior goal met (follow-up).
DM-EXGNM	Behavior goal unmet (follow-up).

Session 6

DM-M	**Diabetes Medicine—Overview and Diabetes Pills**
DM-IN	**Diabetes Medicine—Insulin**
Outcome:	**The individual/family will understand their medicine regimen.**
Section 1:	**Overview**
DM-M1	Discuss the role of diabetes medicines in the overall diabetes treatment plan.
DM-M2	State 2 or more reasons for adding or changing diabetes medicines.
DM-M3	State the importance of checking blood sugar more often when medicines are changed.
DM-M4	State the importance of taking medicines as prescribed.
DM-M5	State 2 or more guidelines for when to contact a health care provider for medicine.
DM-M6	Discuss the role of alternative treatments for diabetes and how they affect blood sugar (including herbal, traditional healing methods and over-the-counter medicines).
DM-MGS	State or write a personal plan for taking diabetes medicine.
DM-MGNS	Behavior goal not set (follow-up).
DM-MGM	Behavior goal met (follow-up).
DM-MGNM	Behavior goal unmet (follow-up).
Section 2:	**Diabetes Pills**
DM-M7	State the name of their diabetes pills, how much to take, when to take, how they work and possible side effects.
DM-MGS	State or write a personal plan for taking diabetes medicine.
DM-MGNS	Behavior goal not set (follow-up).
DM-MGM	Behavior goal met (follow-up).
DM-MGNM	Behavior goal unmet (follow-up).
Section 3:	**Insulin**
DM-IN1	Discuss how insulin works to control blood sugar in people with type 2 diabetes.
DM-IN2	Describe the types of insulin they use, the names, how they work, how much to take and when to take them.
DM-IN3	Identify insulin injection sites.

DM-IN4	Demonstrate proper technique for withdrawing and injecting insulin.
DM-IN5	Discuss the proper storage of insulin.
DM-IN6	Discuss the proper disposal of insulin syringes and other sharps.
DM-IN7	Discuss the major side effect of taking insulin.
DM-INGS	State or write a personal plan for using insulin.
DM-INGNS	Behavior goal not set (follow-up).
DM-INGM	Behavior goal met (follow-up).
DM-INGNM	Behavior goal unmet (follow-up).

Session 7

DM-BGM	**Home Blood Sugar Monitoring**
Outcome:	**The individual/family will understand the importance of blood sugar monitoring, know how to use the meter and make a personal blood sugar monitoring plan.**
DM-BGM1	Explain that people with diabetes use a meter to learn how much sugar is in the blood.
DM-BGM2	List benefits of checking blood sugar.
DM-BGM3	State target blood sugar ranges to decrease risk for complications.
DM-BGM4	Discuss personal blood sugar goals.
DM-BGM5	State when to check blood sugar.
DM-BGM6	Discuss proper technique for checking blood sugar.
DM-BGM7	Demonstrate how to record results correctly.
DM-BGM8	Discuss benefits of bringing meter and logbooks to clinic visits.
DM-BGM9	State proper disposal of sharps.
DM-BGM10	State how to get supplies to check blood sugar.
DM-BGMGS	State or write a plan to check blood sugar.
DM-BGMGNS	Behavior goal not set (follow-up).
DM-BGMGM	Behavior goal met (follow-up).

DM-BGMGNM Behavior goal unmet (follow-up).

Session 8

DM-ABC **Knowing Your Numbers-ABC**

Outcome: **The individual/family will be able to identify target goals for A1c, blood pressure and blood fat levels.**

DM-ABC1 Verbalize one reason for measuring A1c.

DM-ABC2 State the target A1c goal for blood sugar control.

DM-ABC3 Identify current A1c.

DM-ABC4 State 2 or more ways to reach or maintain A1c goal.

DM-ABC5 Verbalize one reason for measuring blood pressure.

DM-ABC6 State the target goal for blood pressure control.

DM-ABC7 Identify current blood pressure.

DM-ABC8 State 2 or more ways to reach or maintain target blood pressure goal.

DM-ABC9 Verbalize one reason for measuring blood fats.

DM-ABC10 State the target goals for blood fats.

DM-ABC11 Identify at least one current blood fat level.

DM-ABC12 List 2 or more ways to reach or maintain target blood fat goals.

DM-ABC13 State where to get help to improve ABC numbers.

DM-ABCGS State or write a plan to reach or maintain at least one of the ABC numbers.

DM-ABCGNS Behavior goal not set (follow-up).

DM-ABCGM Behavior goal met (follow-up).

DM-ABCGNM Behavior goal unmet (follow-up).

Session 9

DM-AC **Balancing Your Blood Sugar**

Outcome: **The individual/family will understand acute complications and self-care actions to take to prevent or treat acute complications.**

Section 1: **Low Blood Sugar**

DM-AC1	Define low blood sugar.
DM-AC2	Discuss 2 or more causes of low blood sugar.
DM-AC3	List 2 or more symptoms of low blood sugar.
DM-AC4	State 2 or more actions to take when feeling symptoms of low blood sugar.
DM-AC5	State 2 or more actions to prevent low blood sugar.
DM-ACGS	State or write a plan to use for low blood sugar, high blood sugar or sick day management.
DM-ACGNS	Behavior goal not set (follow-up).
DM-ACGM	Behavior goal met (follow-up).
DM-ACGNM	Behavior goal unmet (follow-up).

Section 2: **High Blood Sugar**

DM-AC6	Define high blood sugar.
DM-AC7	State 2 or more causes of high blood sugar.
DM-AC8	List 2 or more symptoms of high blood sugar.
DM-AC9	Discuss 2 or more actions to take when blood sugar is high.
DM-AC10	State 2 or more actions to prevent high blood sugar.
DM-ACGS	State or write a plan to use for low blood sugar, high blood sugar or sick day management.
DM-ACGNS	Behavior goal not set (follow-up).
DM-ACGM	Behavior goal met (follow-up).
DM-ACGNM	Behavior goal unmet (follow-up).

Section 3: **Sick Day Management**

DM-AC11	Explain how blood sugar is affected during illness.

DM-AC12	State 2 or more things to do to manage blood sugar when sick.
DM-AC13	Identify 2 or more food and drink choices to use when sick.
DM-ACGS	State or write a plan to use for low blood sugar, high blood sugar or sick day management.
DM-ACGNS	Behavior goal not set (follow-up).
DM-ACGM	Behavior goal met (follow-up).
DM-ACGNM	Behavior goal unmet (follow-up).

Session 10

DM-CC	**Staying Healthy With Diabetes**
Outcome:	**The individual/family will understand the prevention and treatment of long-term complications of diabetes.**
Section 1:	**Overview**
DM-CC1	State that controlling blood sugar lowers the chance of getting diabetes complications.
DM-CC2	Identify 2 or more factors that increase the risk of complications.
DM-CC3	State 2 or more long-term complications of diabetes.
DM-CCGS	State or write at least one behavior change that will help lower their risk for diabetes complications.
DM-CCGNS	Behavior goal not set (follow-up).
DM-CCGM	Behavior goal met (follow-up).
DM-CCGNM	Behavior goal unmet (follow-up).
Section 2:	**Complications**
Retinopathy	
DM-CC4	Define retinopathy in their own words.
DM-CC5	List 2 or more ways to prevent or delay eye disease.
DM-CC6	Discuss how eye disease is treated.

Heart Disease

DM-CC7	Define heart disease in their own words.
DM-CC8	List 2 or more ways to prevent or delay heart disease.
DM-CC9	Discuss how heart disease is treated.

Nephropathy

DM-CC10	Define nephropathy in their own words.
DM-CC11	List 2 or more ways to prevent or delay kidney disease.
DM-CC12	Discuss how kidney disease is treated.

Neuropathy

DM-CC13	Define neuropathy in their own words.
DM-CC14	List 2 or more ways to prevent or delay nerve damage.
DM-CC15	Discuss how nerve damage is treated (including pain management).

Sexual Health

DM-CC16	Discuss in simple terms how diabetes and high blood sugars may impact intimacy/sexuality.
DM-CC17	List 2 or more ways to prevent or delay sexual health problems.
DM-CC18	Discuss how sexual health problems are treated.
DM-CC19	Discuss ways to talk about sexual concerns with significant others and members of the health care team.

Periodontal

DM-CC20	Define periodontal disease in their own words.
DM-CC21	List 2 or more ways to prevent or delay gum/teeth problems.
DM-CC22	Discuss how periodontal disease is treated.
DM-CCGS	State or write at least one behavior change that will help lower their risk for diabetes complications.
DM-CCGNS	Behavior goal not set (follow-up).

DM-CCGM	Behavior goal met (follow-up).
DM-CCGNM	Behavior goal unmet (follow-up).
Section 3:	**Summary**
DM-CC23	Describe the need for all people with diabetes to get yearly tests, exams and immunizations.
DM-CC24	Identify their risk factors for diabetes complications.
DM-CCGS	State or write at least one behavior change that will help lower their risk for diabetes complications.
DM-CCGNS	Behavior goal not set (follow-up).
DM-CCGM	Behavior goal met (follow-up).
DM-CCGNM	Behavior goal unmet (follow-up).

Session 11

DM-FTC	**Taking Care of Your Feet**
Outcome:	**The individual/family will understand the importance of foot care for people with diabetes.**
DM-FTC1	State one or more reasons to check feet every day.
DM-FTC2	Identify 2 or more risk factors for foot problems.
DM-FTC3	List 2 or more daily self-care actions to prevent foot problems.
DM-FTC4	Describe how to cut toenails correctly.
DM-FTC5	Describe 2 or more things to look for when choosing proper footwear.
DM-FTC6	State 2 or more signs and symptoms of foot and skin infections.
DM-FTC7	State when to contact the diabetes team about foot problems and infections.
DM-FTC8	State the reason for routine foot exams at each clinic visit and yearly foot screening.
DM-FTCGS	Demonstrate a personal foot exam and state a personal foot care plan.
DM-FC-GNS	Behavior goal not set (follow-up).

DM-FTCGM	Behavior goal met (follow-up).
DM-FTCGNM	Behavior goal unmet (follow-up).

Session 12

DM-PPC	**Planning for Pregnancy**
Outcome:	**The woman with diabetes and her significant other/family will understand the need for blood sugar control prior to pregnancy.**
DM-PPC1	Describe the need to reach target blood sugar goal before becoming pregnant.
DM-PPC2	Identify 2 or more ways to reach target blood sugar goal before becoming pregnant.
DM-PPC3	State that insulin injections may be needed to reach target blood sugar goal before becoming pregnant.
DM-PPC4	State 2 potential problems for the baby if pregnancy occurs while the mother's blood sugar is high.
DM-PPC5	State 2 potential problems for the mother during pregnancy.
DM-PPC6	State the need to use birth control until ready to become pregnant.
DM-PPC-7	State the need to seek early prenatal care.
DM-PPC-8	State the need to avoid tobacco, alcohol and drugs before and during pregnancy.
DM-PPC-9	Identify community resources to support families before, during and after pregnancy.
DM-PPCGS	State or write a personal plan to prepare for pregnancy.
DM-PPCGNS	Behavior goal not set (follow-up).
DM-PPCGM	Behavior goal met (follow-up).
DM-PPCGNM	Behavior goal unmet (follow-up).

SESSION

1

What is Diabetes?

DM-DP
Disease Process: What is Diabetes?

STATEMENT OF PURPOSE

This session provides information about the definition, pathophysiology and treatment of type 2 diabetes for American Indians/Alaska Natives (AI/AN).

PREREQUISITES

None

LEARNING OBJECTIVES

DM-DP1	Provide a simple definition for diabetes in their own words.
DM-DP2	Discuss the differences between type 1 and type 2 diabetes.
DM-DP3	Explain how the body normally uses food.
DM-DP4	List 2 or more risk factors for developing diabetes.
DM-DP5	Describe the impact of insulin resistance in diabetes.
DM-DP6	List 2 or more signs or symptoms of high blood sugar.
DM-DP7	State the range for normal fasting blood sugar.
DM-DP8	State a normal blood sugar range 1-2 hours after a meal.
DM-DP9	Explain that high blood sugar can cause damage to the nerves and blood vessels in the eyes, heart, kidneys and feet.
DM-DP10	List 2 or more diabetes self-care actions necessary to reach target blood sugar goals.
DM-DPGS	State or write one change to make for diabetes self-care.
DM-DPGNS	Behavior goal not set (follow-up).
DM-DPGM	Behavior goal met (follow-up).
DM-DPGNM	Behavior goal unmet (follow-up).

CONTENT

Diabetes disease process

MATERIALS NEEDED

Visuals Provided

#1 *Pancreas*
#2 *Diabetes and American Indians*
#3 *What is Diabetes?*
#4 *Normal Sugar in the Blood*
#5 *Too Much Sugar in the Blood*
#6 *Normal Blood Sugar and Insulin Levels*
#7 *Blood Sugar Ranges*
#8 *Target Blood Sugar Goals*
#9 *Changes I Can Make*

Additional

Body apron
Disease process video
Glucose wands

METHOD OF PRESENTATION

Start by introducing yourself. Use a creative icebreaker. (See Introduction on p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with diabetes. Explain that the purpose of this session is to provide a basic overview of diabetes.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate discussion. Have a variety of teaching tools available based on participants' learning needs. Be creative and encourage interaction. A videotape may also be shown to introduce content if available.

CONTENT OUTLINE

Objective	Content	Educator's Notes
DP1. Provide a simple definition for diabetes in their own words.	Diabetes is too much sugar in the blood.	Ask, "Tell me in your own words—What is diabetes?"

Objective	Content	Educator's Notes
DP1. (continued)	Blood sugar comes from food. All people have sugar in their blood. The body uses this blood sugar for energy. The body cells use this blood sugar to do their work (energy).	Ask, "How would you explain diabetes to another person?"
	Some people cannot get the blood sugar into cells. The sugar stays in the blood. They get high blood sugar.	Visual #2: *Diabetes and American Indians* or Visual #3: *What is Diabetes?*
	Insulin is a hormone made by the pancreas. Insulin is needed to help keep the blood sugar level in a normal range.	Show pancreas on the *body apron* or Visual #1: *Pancreas* The pancreas is located behind the stomach.
DP2. Discuss the differences between type 1 and type 2 diabetes.	There are several types of diabetes. The 2 most common types are type 1 and type 2.	Visual #2: *Diabetes and American Indians* Ask, "What is the difference between type 1 and type 2 diabetes?" List responses.
	In type 1 diabetes, the pancreas makes little or no insulin. People with type 1 need to take insulin. Type 1 diabetes is rare in American Indian/Alaska Native people.	Old names for type 1 diabetes are insulin-dependent, juvenile-onset, unstable, brittle and type I diabetes.
	Type 2 diabetes is the most common type of diabetes in the world and in American Indian and Alaska Native (AI/AN) people. In type 2 diabetes, the pancreas makes insulin. But these things may happen:	Old names for type 2 diabetes are maturity-onset, adult-onset, insulin-resistant and type II diabetes. Clarify the differences.

Objective	Content	Educator's Notes
DP2. (continued)	• the insulin does not work well (i.e., body cells may not allow insulin to do its work - this is insulin resistance) • the pancreas may not make enough insulin • some people may not make enough insulin and their insulin does not work well	Physical activity and weight loss may help the insulin to work better and reduce insulin resistance. Emphasize that people with type 2 often take diabetes medicines. Introduce need for insulin at various stages of diabetes (i.e., stress, pregnancy, illness, high blood sugars, not responsive to oral meds, etc.) It is important to introduce now, to start reducing fears and misconceptions about insulin and its use. Over time, the body makes less insulin.
	Type 2 diabetes can occur at any age. It is more commonly diagnosed after age 40 in the general population and much younger in AI/AN people.	Type 2 diabetes is increasing in all communities throughout the world. Type 2 diabetes may occur at younger ages in high-risk populations. See Objective DP-4 for risk factors for developing diabetes.
	There are children with type 2 diabetes.	The number of children with type 2 diabetes is increasing.
DP3. Explain how the body normally uses food.	**People without diabetes:** The blood sugar level of people who do not have diabetes stays within a normal range.	Visual #2: *Diabetes and American Indians* and Visual #7: *Blood Sugar Ranges*
	Blood sugars change throughout the day but stay in this range.	Another name for sugar is glucose. A person may hear health care providers call sugar glucose.
	Blood sugar goes up after eating. The body changes food into sugar. Body cells use blood sugar for energy. Blood sugars rise after eating food.	
	Insulin is released from the pancreas as the blood sugar level goes up.	Visual #6: *Normal Blood Sugars and Insulin Levels* Explain the parts of the graph and

Objective	Content	Educator's Notes
DP3. (continued)		what the graph is saying about blood sugar and insulin levels.
	Cells have receptor sites. Insulin attaches to the receptor sites and makes an opening to help sugar go into the cell.	Visual #4: *Normal Sugar in the Blood* and Visual #5: *Too Much Sugar in the Blood*
	People with type 2 diabetes: The body changes food into blood sugar. Body cells use blood sugar for energy.	Use visuals to explain concept of receptor sites. You may want to use an analogy to explain this, such as, "Insulin is the key that opens the door to the cell." Visual #2: *Diabetes and American Indians* and Visual #5: *Too Much Sugar in the Blood*
	There is not enough insulin or the insulin does not work well to keep blood sugar in the normal range. Sugar cannot get into most body cells to be used for energy. Sugar stays in the blood and blood sugar levels rise too much and stay high.	Hyperglycemia is another name for high blood sugar. A person may hear health care providers call it that. You may want to use the glucose wands to show high blood sugar versus normal blood sugar.
DP4. List 2 or more risk factors for developing diabetes.	People are more likely to get diabetes if they: • are heavy • are a woman with a waist size $\geq$ 35 inches or a man with a waist size $\geq$ 40 inches. • are inactive • are over the age of 30 • have one or both parents with diabetes • have family members with diabetes • had diabetes when they were pregnant	Visual #2: *Diabetes and American Indians* A person does not catch diabetes or get it from eating sweets. People who gain weight in the abdominal area (middle) of the body are more likely to get diabetes. Healthy food choices and physical activity help prevent this weight gain. Diabetes runs in families. If one parent has type 2 diabetes, the risk is great; if both parents have type 2 diabetes, the risk is greater. Lifestyle and environmental changes, such as changing from traditional diet

Objective	Content	Educator's Notes
DP4. (continued)		and activity to a more "western" lifestyle, has led to more diabetes.
DP5. Describe the impact of insulin resistance in diabetes.	Insulin resistance is the main cause of high blood sugar in early diabetes. In early diabetes, the pancreas is still making insulin, but some of the receptor sites on the body cells are lost. Insulin cannot find the lost receptor sites to help carry the sugar into the cell. This causes sugar to move into the cell at a slower rate. Sugar stays in the blood because it has nowhere to go. This causes high blood sugar. Reaching a healthy weight, physical activity and some diabetes medicines will decrease insulin resistance.	In many cases, insulin levels may be above normal during early diabetes. Refer to Visual #5: *Too Much Sugar in the Blood* or use the analogy of the key and door. Basics of healthy eating is covered in Session 4. Physical activity is covered in Session 5. Diabetes medicine is covered in Session 6.
DP6. List 2 or more signs or symptoms of high blood sugar.	High blood sugar can cause a person to have signs and symptoms. These signs and symptoms are: • tiredness • increased thirst • hunger • weight loss	Ask, "What symptoms did you have before you found out you had diabetes?" Visual #2: *Diabetes and American Indians* <u>Tiredness</u>: Sugar is not getting into the cells to be used for energy, so the person is tired. <u>Increased thirst</u>: When a person urinates a lot, the body needs more water. This increases thirst. <u>Hunger and weight loss</u>: The sugar cannot get into the cells where it can be used for energy. Loss of sugar through the urine means loss of calories.

Objective	Content	Educator's Notes
DP6. (continued)	• blurred vision	Blurred vision: Sugar builds up in the lens of the eye, causing the lens to swell and change vision. Wait to have eyes tested for glasses for 6-8 weeks after blood sugar levels are at goal. Reassure people that these changes most likely will get better as their blood sugars improve. If a person has had diabetes a long time before diagnosis, blurred vision may be caused by retinopathy (eye disease).
	• urinate more often	Urinate more often: The higher the sugar levels in the blood, the more sugar appears in the urine and the harder the kidneys have to work. This causes the body to make more urine to get rid of the extra sugar.
	• sores that do not heal • sore gums	Sores that do not heal and sore gums: High blood sugars impair the body's ability to fight infection.
	• genital itching	Genital itching: High blood sugar can cause more yeast infections for both men and women.
DP7. State the range for normal fasting blood sugar.	Fasting blood sugar • without diabetes: 70-99 mg/dl • pre-diabetes: 100-125 mg/dl • diabetes: 126 mg/dl or above	Visual #2: *Diabetes and American Indians* and Visual #7: *Blood Sugar Ranges* Ask, "What are normal blood sugar levels?"
DP8. State a normal blood sugar range 1-2 hours after a meal.	Blood sugar 1-2 hours after meals • without diabetes: 70-139 mg/dl • pre-diabetes:	Visual #7: *Blood Sugar Ranges* The A1c test is covered in Session 8.

Objective	Content	Educator's Notes
DP8. (continued)	140-199 mg/dl • diabetes: 200 mg/dl or above	The word pre-diabetes is now used to help warn people that they are at risk for type 2 diabetes. Old names for pre-diabetes are: borderline diabetes, impaired glucose tolerance and impaired fasting glucose. This is when blood sugar levels are higher than normal, but not high enough to be diabetes. The Diabetes Prevention Program (DPP) Study, which included American Indian participants, proved that losing weight and being more active can help a person prevent or delay diabetes.
DP9. Explain that high blood sugar can cause damage to the nerves and blood vessels in the eyes, heart, kidneys and feet.	Diabetes is a serious life-long disease. It is not curable, but it is treatable. Having high blood sugar over many years can cause problems with eyes, kidneys, feet, gums and heart. The best way to avoid these problems is to keep blood sugar at target goal.	Visual #2: *Diabetes and American Indians* Use the glucose wands to show how high blood sugars affect the blood vessels. Many studies, such as the DCCT and UKPDS, have shown that blood sugar levels kept within target range may prevent or delay the complications of diabetes.
DP10. List 2 or more diabetes self-care actions necessary to reach target blood sugar goals.	People with diabetes make decisions each day about their self-care. These decisions affect blood sugar levels.	Visual #2: *Diabetes and American Indians* Stress the importance of the role the person with diabetes plays in their health care. They are the most important member of the diabetes team.

Objective	Content	Educator's Notes
DP10. (continued)	The first step is to decide on blood sugar goals. Treatment, including self-care, is based on working toward this goal.	Keeping blood sugar levels near normal helps decrease symptoms and reduces the risks for acute and long-term complications of diabetes.
	People with type 2 diabetes are able to reach and maintain their blood sugar goals by balancing: • food choices • physical activity • medicines • emotions • stress	
	Target blood sugar goals are: 80-120 mg/dl before breakfast 80-140 mg/dl 2 hours after a meal 100-140 mg/dl at bedtime	Visual #8: *Target Blood Sugar Goals* These goals are for whole blood glucose. Add 10-15% to convert these to plasma glucose. Target ranges may be changed based on facility standards and the individual needs of the person with diabetes.
	The treatment of type 2 diabetes is usually done in stages. Some people start with a healthy meal plan and physical activity.	Stress that patients may stay in one stage for a while, but that they should not stay with a treatment plan that does not control their blood sugars.
	Others may need to include pills or insulin shots along with healthy eating and physical activity. Changes in the treatment used will depend on target blood sugar goals.	Remind patients that treatment failures are not personal failures.
	A healthy meal plan for blood sugar control includes: • eating at regular times throughout the day • eating smaller portions • eating less sugar foods and drinks • eating less fat foods	Refer to a dietitian for an individual assessment and nutrition education. Healthy eating is covered in Session 4. Discuss the importance of eating 3 or more times a day to help keep the blood sugar steady.

Objective	Content	Educator's Notes
DP10. (continued)	Physical activity for blood sugar control includes: • walking for 30 minutes for 5 days or more a week • starting slowly and working up to 30 minutes Medicines for blood sugar control include diabetes pills and/or insulin.	Discuss the different kinds of physical activity that people can do. Note: Caution people to check with their health care provider before starting to exercise. Physical activity is covered in Session 5. Medicines are covered in Session 6. Stress eating healthy and being physically active help medicines work better.
DPGS. State or write one change to make for diabetes self-care.	Caring for diabetes is not easy. It may mean changing life-long habits. Remember, habits may take a long time to change, but it can be done. Making changes is easier when plans are broken down into small easy-to-do steps.	Ask, "How is caring for diabetes different?" Show empathy. Stress that changing habits is hard but possible. People can work with their team to learn ways to make changes. Visual #9: *Changes I Can Make* Ask, "What are some choices you made or can make that affect your diabetes?" See Session #3: *Making Healthy Changes.*

SKILLS CHECKLIST

Each participant will be able to choose at least one change to make for diabetes self-care.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by identifying at least one change to make for diabetes self-care. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities.* Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes*.

What is Diabetes?

Your brother stops by to visit you. He looks like he has lost some weight since you saw him last a few months ago. He tells you he is tired and thirsty all the time. He is planning to go to the clinic this week for a check up. He tells you he is afraid it is diabetes, but he does not know why he could have diabetes since he is thin and active. He asks you how they can tell if it is diabetes and what they will do for him.

1. **What can you tell your brother about some of the symptoms he is having?**

   _____
   _____
   _____
   _____

2. **How would you answer your brother's question of why he could have diabetes since he is thin and active?**

   _____
   _____
   _____
   _____

3. **What care might your brother receive when he goes to the clinic for a check-up? If he has diabetes, what are his treatment choices?**

   _____
   _____
   _____
   _____

4. **What are some ways you would help your brother with his fear about diabetes?**

   _____
   _____
   _____
   _____

What is Diabetes?

Your brother stops by to visit you. He looks like he has lost some weight since you saw him last a few months ago. He tells you he is tired and thirsty all the time. He is planning to go to the clinic this week for a check up. He tells you he is afraid it is diabetes, but he does not know why he could have diabetes since he is thin and active. He asks you how they can tell if it is diabetes and what they will do for him.

1. **What can you tell your brother about some of the symptoms he is having?**
   High blood sugar can cause a person to have symptoms such as tiredness, increased thirst, hunger, weight loss, blurred vision, urinating more often, sores that do not heal, sore gums and/or genital itching. Some people have no symptoms when they have diabetes. It is important to go to the clinic to find out why he is feeling this way. If he has diabetes, it is important to get treatment for high blood sugar right away.

2. **How would you answer your brother's question of why he could have diabetes since he is thin and active?**
   People are more likely to have diabetes if they are heavy and/or inactive. But there are other things that make someone more likely to have diabetes, such as being over the age of 30, having one or both parents with diabetes, having family members with diabetes and having diabetes when pregnant. Some people who have none of these risk factors also develop diabetes.

3. **What care might your brother receive when he goes to the clinic for a check-up? If he has diabetes, what are his treatment choices?**
   The clinic will do an examination and lab tests. Diabetes is diagnosed with a blood test.
   Blood sugar ranges are:
   Fasting blood sugar:
   - without diabetes: 70-99 mg/dl
   - pre-diabetes: 100-125 mg/dl
   - diabetes: 126 mg/dl or above

   Blood sugar 1-2 hours after meals:
   - without diabetes: 70-139 mg/dl
   - pre-diabetes: 140-199 mg/dl
   - diabetes: 200 mg/dl or above

   The treatment of type 2 diabetes is usually done in stages. Some people start with a healthy meal plan and physical activity. Others may need to include diabetes pills or insulin along with healthy eating and physical activity. Changes in treatment will depend on target blood sugar goals.

4. **What are some ways you would help your brother with his fear about diabetes?**
   Most people with diabetes have feelings like fear, sadness, or anger at one time or another. This is normal. People may have different feelings from day to day and these feelings may change over time. Sometimes it helps to talk about feelings with others. If people find it hard to say their feelings, writing them in a diary can help. They can tear up the written feelings if they do not want anyone to read them. Learning what to do to stay healthy with diabetes helps some people be less fearful.

SESSION

2

Diabetes and Mind, Spirit and Emotion

DM-MSE
Diabetes and Mind, Spirit, and Emotion

STATEMENT OF PURPOSE

This session is intended to encourage people with diabetes, their family members and their significant others to recognize and express feelings about:

- having diabetes
- how diabetes affects their lives

It also provides information about:

- stress
- how stress affects diabetes control
- how people can recognize stressful situations in their lives
- how to develop strategies for coping with stressful situations

PREREQUISITES

None

LEARNING OBJECTIVES

DM-MSE1	Express feelings about having diabetes.
DM-MSE2	Discuss one or more ways diabetes has affected his/her life and/or the lives of their family members and significant others.
DM-MSE3	Identify their support person(s).

DM-MSE4	Share past experiences in dealing with health or other kinds of problems.
DM-MSE5	Explain the body's response to stress.
DM-MSE6	Discuss ways to handle stress.
DM-MSEGS	State or write one way to handle a stressful situation.
DM-MSGNS	Behavior goal not set (follow-up).
DM-MSEGM	Behavior goal met (follow-up).
DM-MSEGNM	Behavior goal unmet (follow-up).

CONTENT

Psychosocial adjustment, family involvement, social support

MATERIALS NEEDED

Visuals Provided

#1 *Diabetes and Your Feelings*
#2 *Feelings Faces*
#3 *When "The Blues" Won't Go Away*
#4 *Positive Ways to Handle Stress*
#5 *Relaxation Techniques*
#6 *Tips From Real Life*
#7 *Changes I Can Make*

Additional

Well-being visual based on local cultural beliefs
Feelings cards
Psychosocial aspects of diabetes video
Resource list, including information about local diabetes support groups, stress management groups and other local resources
Information about other materials, including books on coping with diabetes, feelings and stress
Other community-appropriate videotapes or audiotapes to initiate discussion of these issues
Moving Past Grief (Health for Native Life, Volume 4, p. 42)

METHOD OF PRESENTATION

Start by introducing yourself. Use a creative ice breaker. (See Introduction on p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with diabetes. Explain that the purpose of this session is to provide a time for participants to express their feelings related to diabetes and learn ways to manage stress. Participants will have the opportunity to practice relaxation techniques.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate discussion. Have a variety of teaching tools available based on participants' learning needs. A videotape or audiotape may also be used to introduce material if available. It is important to acknowledge and validate any feelings expressed by participants. If family members or significant others are present, you can draw them into the discussion by asking about their feelings and concerns. Use real life situations for discussion. Relaxation activities may be practiced during the session.

Some people may not want to talk. One way to accommodate them is to ask all participants to write down their feelings on a card and give them to the instructor to read. This way people are not identified with their feelings and thoughts.

Begin the session with an introduction to American Indian and Alaska Native concepts of health and wellness appropriate to the participants' communities. You may wish to use a *Well-being* visual to introduce the topic if available for your community. Discuss the importance of caring for mental, spiritual and emotional needs, as well as physical needs, to keep the total self in balance or harmony.

CONTENT OUTLINE

Objective	Content	Educator's Notes
MSE1. Express feelings about having diabetes.	Everyone has feelings or thoughts about having diabetes. People may have different feelings from day to day and the feelings may change over time.	Visual #1: *Diabetes and Your Feelings* may be used for discussion. Ask, "What were your thoughts or feelings when you were first told you had diabetes? What are your thoughts or feelings now about having diabetes?" Have participants say or write their answers or circle their feelings on Visual #2: *Feelings Faces.*
	A person may have many feelings when they find out they have diabetes. These feelings can include: • Shock: "Not me." "The test must be wrong." • Fear: "What does this mean for my life?" • Anger: "Why me?" "I don't deserve this."	Ask, "How have you dealt with your feelings? What ways of handling your feelings have you found to be helpful?" If everyone in the group is newly diagnosed, ask, "How have you dealt with feelings in the past?" For people who find it hard to say their feelings, writing thoughts down can help.

Objective	Content	Educator's Notes
MSE1. (continued)	• Sadness: "I feel so alone." "No one understands." • Guilt: "If I hadn't eaten so much, I wouldn't have diabetes." • Denial: "I just have a touch of diabetes." • Acceptance: "I can be well." "I have diabetes--it is part of me." Most people with diabetes have all or some of these feelings at one time or another. Some people feel depressed. People who feel very sad or depressed need to tell a friend, family member, counselor or health care provider and get help right away. The way a person feels about having diabetes affects how they care for their diabetes. Family members also have feelings about diabetes.	Keeping a diary of feelings may be helpful. Negative feelings that last a long time may make it hard for people to take care of their diabetes. It is important to ask for help with feelings when this happens. Feeling "down" now and then is normal. Feeling sad and hopeless for two weeks or more may be a sign of serious depression. Untreated depression can be life threatening. Having diabetes doubles a person's chances of also having depression. Visual #3: *When "The Blues" Won't Go Away*
MSE2. Discuss one or more ways diabetes has affected his/her life and/or the lives of family members and significant others.	Some of the ways diabetes may affect a person's life include having to: • follow a regular schedule • change eating habits • be more active • take medicine every day • check blood sugar • go to the clinic more often • change work, family and fun activities Diabetes may also affect relationships with people.	Ask, "How has diabetes affected your life or the lives of your family members?" Assist participants to recognize the things that are difficult about living with diabetes.

Objective	Content	Educator's Notes
MSE3. Identify their support person(s).	Most people find that having a support person helps them live with diabetes.	Ask, "What have you found helpful in living with diabetes?" List responses.
	Support can come from family, friends, the health care team, spiritual advisors, medicine people or traditional healers, school staff, co-workers and/or others with diabetes.	Ask, "Who have you told that you have diabetes? Who do you think needs to know and why?"
	Family and friends may want to be supportive but not know how.	Ask, "Have you noticed any changes in how your family and friends treat you now that you have diabetes? How does this make you feel?" The feelings family and friends have about a person having diabetes, such as guilt, grief and fatalism, may have an effect on their ability to give support.
	Family and friends need to learn about diabetes and what they can do to help.	Ask participants to brainstorm ways others can be supportive. Write these on the board. (Examples are: get physical activity or eat healthy with you, notice positives rather than negatives, listen to your concerns, etc.)
	Some people find it helpful to join a diabetes support group, or to talk with a counselor, healer, spiritual advisor or another person with diabetes. Living with diabetes can be hard, but help and support are available.	Ask, "Has anyone been in a support group? Did you find it helpful?" Provide information about local support groups and behavioral health, spiritual and other resources. Distribute local *Resource List*. Ask each participant to identify their support person(s).
MSE4. Share past experiences in dealing with health or other kinds of problems.	Past experiences give us valuable lessons. Some experiences are positive and some are negative. People can learn from all of their experiences.	Ask, "What kinds of family/health challenges have you dealt with in the past? What did you do? How did others help you? How long did it take? How many times did you try to make changes before it worked?"

Objective	Content	Educator's Notes
MSE5. Explain the body's response to stress.	Stress is the body's natural reaction to any demand (physical or psychological) put on it.	Ask, "What is stress?" List participants' definitions of stress.
	How stressful an event is depends on how a person looks at the event and whether he/she thinks it is good or bad. Other things going on in a person's life can change how that person sees stress.	Stress is defined by how a person sees a situation, not necessarily the real situation. Learning they have diabetes is stressful for many people.
	Something may feel very stressful one day and not stressful another day.	
	Change of any kind, whether it is positive or negative, is stressful.	
	Major life stressors, such as illness or death in the family, are stressful for everyone. Some major life events, such as graduating from school, marriage, the birth of a child, a new job or retirement, are positive and challenging situations that can cause a stress response.	Have participants identify the main things that cause stress in their lives. You may have them divide these into things they have control over and things they do not have control over.
	Minor life stressors are events that happen in daily life, such as being in a traffic jam, arguing with a coworker or family member, tests, phone calls or doctor visits. Events such as holidays or vacations can be stressors.	Have participants list or name minor things that cause stress in their lives. You may have them divide these into things they have control over and things they do not have control over.
	The body reacts to stress in various ways: • heart rate increases • blood pressure increases • breathing becomes rapid and shallow • muscles get tense	Ask, "Have you experienced any of these body reactions to stress?" The body gets ready for stress by sending out stress hormones (catecholamines, glucagons, cortisol and growth hormone). These hormones may affect feelings and

Objective	Content	Educator's Notes
MSE5. (continued)	• sweating increases	behaviors. Ask, "What are your feelings when you are stressed?"
	• blood sugar may rise	Ask, "Have you noticed that your blood sugar is affected by stress?"
	Energy is needed to either fight off stress or run away from it—the fight or flight response.	
	If extra energy is not used to fight or run away, it can leave a person feeling tense and tired or cause a headache.	
	Stress makes control of diabetes more difficult. Not only can it cause the blood sugar to go high, it can also make it hard for a person to do the things they need to do to take care of their diabetes.	Ask, "Have you noticed a change in the way you handle your diabetes when you are stressed?"
	Some people find they feel less able to deal with stress when their blood sugar is high or low. Their energy for handling the things that cause stress is being used up on diabetes.	Ask, "Have you noticed any change in the way you handle stress when your blood sugar is high or low?"
	All people feel stress from time to time. Too much stress can lead to health problems and affect diabetes control. Limiting stressful events or handling them in a positive way helps a person stay healthy.	Ask, "What health problems are related to stress?" List responses.
MSE6. Discuss ways to handle stress.	Each person handles stress in a different way.	Ask, "What are ways you handle stress?" List responses.
	People usually handle stress in ways that are familiar to them.	Visual #4: *Positive Ways to Handle Stress*

Objective	Content	Educator's Notes
MSE6. (continued)	Some of these ways work and some do not. Some ways leave people feeling tense, tired, angry or sick. Negative coping behaviors include: • overeating • smoking • drinking too much alcohol • working too hard • abusing drugs	Remind participants that there are many different ways to handle stress.
	Other ways of handling stress will help people feel better. Positive coping behaviors include:	Ask, "What helps you handle stress? What keeps you from handling stress well?" List responses.
	• being more physically active	Physical activity helps protect the body from the harmful effects of stress.
	• writing down feelings • talking with trusted people, such as a medicine person or spiritual healer • saving time for oneself every day • asking for support from others • doing fewer things and doing them better	Some people keep a diary to handle stress. Discuss other ways to handle stress.
	• keeping a sense of humor • spending time on a hobby	Laughter releases endorphins. Endorphins are substances the body makes to help people feel good and be more alert.
	Sometimes it is healthy to avoid stressful situations until there has been time to think about how to handle the situation positively.	
	If people want help with handling stress, or feel unable to cope, they can ask for professional help.	Distribute local *resource list* that includes medicine person, spiritual healer, mental health specialist, social worker, psychologist, psychiatrist and/or nurse who is experienced in working with people with diabetes. Make referrals as needed.

Objective	Content	Educator's Notes
MSE6. (continued)	Relaxation techniques can help a person handle stress. Some relaxation techniques are: • prayer • meditation • yoga • deep breathing • visual imagery • muscle relaxation Stress is something everyone experiences. Learning how to handle stress can help a person stay healthy.	Visual #5: *Relaxation Techniques* Practice techniques with participants. Distribute Visual #6: *Tips From Real Life*
MSEGS. State or write one way to handle a stressful situation.	Making changes in health habits, such as using healthy ways to handle stressful situations, is easier when plans for change are broken down into small, easy-to-do steps.	Visual #7: *Changes I Can Make* Have participants state or write one way they can handle a stressful situation. See Session #3: *Making Healthy Changes.*

SKILLS CHECKLIST

Each participant will be able to identify one way to handle a personally stressful situation.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives as evidenced by responses to questions and activities during the session. The ability to acknowledge thoughts or feelings about diabetes and to manage stress will be evaluated by expressing feelings and identifying one way to handle a personally stressful situation. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes.*

Support

Your good friend has recently learned she has diabetes. She tells you she feels all alone dealing with the disease and does not quite know what to do next. She says her family members are not very supportive. She knows you have diabetes and asks you if you could give her some help and support.

1. **How can a support person help someone with diabetes?**

2. **Besides you, who else could give your friend help and support with her diabetes?**

3. **How can your friend help her family members be more supportive?**

4. **How would you ask for, or find, support for living with your diabetes?**

Support

Your good friend has recently learned she has diabetes. She tells you she feels all alone dealing with the disease and does not quite know what to do next. She says her family members are not very supportive. She knows you have diabetes and asks you if you could give her some help and support.

1. **How can a support person help someone with diabetes?**

   Most people find that having a support person helps them live with diabetes. Support people can help with physical activity (such as being a walking partner) or eating healthy (such as serving/choosing food on your meal plan). They can support behavior change efforts by noticing positives rather than negatives and/or listening to concerns.

2. **Besides you, who else could give your friend help and support with her diabetes?**

   Support can come from family members, friends, the health care team, spiritual advisors, medicine people or traditional healers, school staff, coworkers and/or others with diabetes.

3. **How can your friend help her family members be more supportive?**

   Family members and friends may want to be supportive but not know how. The feelings family members and friends have about the person with diabetes may have an effect on their ability to give support (such as anger, guilt, grief, fatalism and past experiences). Listen to their concerns. Family members and friends need to learn about diabetes and what they can do to help—tell them clearly what they can specifically do to help.

4. **How would you ask for, or find, support for living with your diabetes?**

   Some people find it helpful to join a diabetes support group, or to talk with a counselor, healer, spiritual advisor or another person with diabetes. They can invite family members to go to the diabetes support group with them. Information about local support groups, behavioral health, spiritual and other resources can be obtained from *resource lists*.

Handling Stress

You are working long hours right now to take care of some special projects. After work you are trying to spend time with your partner and children, but you are finding you do not have a lot of energy for anything else except work. Your mother is in the hospital right now for an unexpected surgery. Your uncle borrowed your car last week and had an accident—your uncle is okay, but your car is going to be in the repair shop for a few weeks. You are depending on other people for transportation. You are feeling overwhelmed and finding it hard to focus on the things you need to do to take care of your diabetes.

1. **Are you experiencing stress? How do you know?**

_____
_____
_____
_____

2. **What are some ways your body might react to stress you are having?**

_____
_____
_____
_____

3. **What are some ways stress might affect your diabetes?**

_____
_____
_____
_____

4. **What would you do to handle this situation?**

_____
_____
_____
_____

Handling Stress

You are working long hours right now to take care of some special projects. After work you are trying to spend time with your partner and children, but you are finding you do not have a lot of energy for anything else except work. Your mother is in the hospital right now for an unexpected surgery. Your uncle borrowed your car last week and had an accident—your uncle is okay, but your car is going to be in the repair shop for a few weeks. You are depending on other people for transportation. You are feeling overwhelmed and finding it hard to focus on the things you need to do to take care of your diabetes.

1. **Are you experiencing stress? How do you know?**
   Stress is the body's natural reaction to any demand (physical or psychological) put on it.
   How stressful an event is depends on how a person looks at the event and whether he/she thinks it is good or bad. Other things going on in our lives affect how we see stress. Something may feel very stressful one day and not stressful another day. Change of any kind, whether it is positive or negative, is stressful. Major life stressors such as illness or death in the family, are stressful for everyone. Some major life events, such as graduating from school, marriage, the birth of a child, a new job or retirement, are positive and challenging situations that can cause a stress response. Minor life stressors are events that happen in daily life, such as being in a traffic jam, arguing with a coworker or family member, tests, phone calls or doctor visits. Events such as holidays or vacations can be stressors.

2. **What are some ways your body might react to stress you are having?**
   The body reacts to stress in various ways, including increased heart rate, increased blood pressure, rapid and shallow breathing, tense muscles, increased sweating and increased blood sugar. Energy is needed to either fight off stress or run away from it—the fight or flight response. If extra energy is not used to fight or run away, it can leave a person feeling tense and tired or cause a headache.

3. **What are some ways stress might affect your diabetes?**
   Stress makes control of diabetes more difficult. It can cause blood sugar to go high and it can make it hard for a person to do the things they need to do to take care of their diabetes. Some people find they feel less able to deal with stress when their blood sugar is high, low or uneven. Their energy for handling the things that cause stress is being used up on diabetes. All people feel stress from time to time. Too much stress can lead to health problems and will affect diabetes control.

4. **What would you do to handle this situation?**
   Limiting stressful events or handling them positively helps a person stay healthy. Positive coping behaviors include being more physically active, writing down feelings, talking with trusted people (such as a medicine person or spiritual healer), saving time for oneself every day, asking for support from others, doing fewer things so that you can do them better, keeping sense of humor and/or spending time on a hobby. Relaxation techniques can help a person handle stress. Some relaxation techniques are prayer, meditation, yoga, deep breathing, visual imagery and muscle relaxation. Sometimes it is healthy to avoid stressful situations until there has been time to think about how to handle the situation positively. If people want help with handling stress or feel unable to cope, they can ask for professional help.

SESSION

3

Making Healthy Changes

DM-BG
Making Healthy Changes

STATEMENT OF PURPOSE

This session provides a problem-solving approach to diabetes self-care and general health habits. Behavior change strategies and goal setting are included.

PREREQUISITES

It is recommended that participants have basic knowledge of diabetes self-care, either from personal experience or attending previous sessions.

LEARNING OBJECTIVES

DM-BG1	State in simple terms what a goal is.
DM-BG2	Discuss personal habits.
DM-BG3	Identify desirable behavior changes.
DM-BG4	Describe the process for making personal change.
DM-BGGS	State or write a plan to change one or more behaviors.
DM-BGGNS	Behavior goal not set (follow-up).
DM-BGGM	Behavior goal met (follow-up).
DM-BGGNM	Behavior goal unmet (follow-up).

CONTENT

Goal setting; Problem-solving

MATERIALS NEEDED

Visuals Provided

#1 *Sample Long-term Goals*
#2 *Healthy Behaviors*
#3 *Make Healthy Habits a Pleasure*
#4 *Changing Habits Step-by-Step*
#5 *Name That Stage*
#6 *Staying on the Path*
#7 *Benefits and Barriers*
#8 *Changes I Can Make*

Additional

Sample completed behavior change records
Sample contracts

METHOD OF PRESENTATION

Start by introducing yourself. Use a creative icebreaker. One example is to ask participants to cross their arms the way they normally do. Then ask them to cross their arms the other way. Ask participants how it feels to have their arms crossed the other way – awkward? different? strange? Tell them that when they start something new, it is sometimes awkward, but when it is repeated, it will become familiar and comfortable, like a habit. (See Introduction on p. XIII for more examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with diabetes. Explain that the purpose of this session is for participants to develop a plan for working on a behavior they want to change.

Use facilitated group discussion to present material. Encourage participants to share and ask questions to facilitate discussion. Have a variety of teaching tools available based on participants' learning needs. Be creative and encourage interaction.

Review experiences and suggestions with participants so that they can choose a behavior change they believe will be helpful to them. Help participants break down large goals into smaller, more achievable steps. Help them feel that they can do it and not feel overwhelmed.

Encourage family members and friends of participants to take part in the session, either by making a personal behavior change plan or by identifying how they will provide support.

CONTENT OUTLINE

Objective	Content	Educator's Notes
Introduction	Taking care of diabetes may mean changing health habits. A person is more likely to succeed in changing habits if they make a plan. Plans include a person's goals and steps to reach them.	You may want to use the analogy of using a map to learn how to get where they want to go.
BG1. State in simple terms what a goal is.	A goal is something a person wants to achieve, something they want to work toward.	Ask, "How would you describe what a goal is?" List responses.
	A person usually needs to change their behavior to achieve a goal.	Trying to change too much at once may not give them success with reaching their goal. Making small changes will help them reach their goal.
	A person is more likely to reach their goal if it is: • reasonable (within reach) • measurable (clear about what needs to be done and when)	Encourage participants to choose goals they think of themselves. Keeping blood sugar at target goal is an example of a long-term goal. But having home blood sugar at target goal at all times is not realistic for most people with diabetes.
	Long-term goals are what a person wants to achieve at some point in the future.	Ask, "What are some of your long-term goals for living with diabetes?" Assist participants to identify one long-term goal to use as a personal example during this session. Visual #1: *Sample Long-term Goals*.
	Short-term goals are the small changes a person will do to reach what they eventually want to achieve (their long-term goal). Examples of short-term goals are:	Ask, "Where would you like to be with this goal 6 months from now? Three months from now? What are some steps you could take to bring you closer to your goal?"

Objective	Content	Educator's Notes
BG1. (continued)	• checking blood sugar twice a day • walking for 30 minutes 2 days a week	
BG2. Discuss personal habits.	Habits are behaviors that a person repeats often. People usually repeat behaviors that bring them pleasure and avoid behaviors that they dislike. Habits come in many forms and can have more healthy or less healthy effects. Habits are formed over time. Sometimes a person is not even aware that they are forming habits. The ways that people eat, do physical activity and take care of their health are habits.	Visual #3: *Make Healthy Habits a Pleasure:* See *Why Do I Do What I Do?* p. 15 A person may have had these habits for many years. They are not always easy to change. Many habits are learned from a person's family. Making changes in habits can help families live healthier. Ask, "What are some of your habits that affect your long-term goals for living with diabetes?" List responses.
BG3. Identify desirable behavior changes.	Some health habits that have a healthy effect on diabetes are: • making healthy food choices • being physically active every day • taking medicines as prescribed • checking blood sugar at home • looking at one's feet every day • getting yearly tests and exams • visiting the health care provider regularly • stopping tobacco use • drinking less alcohol • coping with stress • asking for help with making changes	Ask, "What changes have you made as a result of diabetes? What changes have been hard/easy?" List responses. Ask, "What habits would you still like to add or change?" Assist participants to identify desirable behaviors on Visual #2: *Healthy Behaviors* in relation to the long-term goal they are using as a personal example during the session.

Objective	Content	Educator's Notes
BG4. Describe the process for making personal change.	There are steps people can take to change habits. They include:	Visual #4: *Changing Habits Step-by-Step*
	• become aware of the need to change	Think about why it is good to change, what a person wants to change and what they are willing to do to change.
	• begin to learn how to change	Ask questions and find out more about ways a person can make the change.
	• take action	After people change their thoughts about a new behavior, they need to start changing their actions. In this step, a person moves beyond things that stopped them before from making changes.
	• reinforce the new habit	A person's new behavior becomes a part of their life. They continue to learn more.
	A person is more likely to succeed in changing habits if they start with something they want to do and are ready to do. Success helps a person feel like they can make changes.	
	A person can see how ready they are to change a habit by seeing what stage of change they are in.	Visual #5: *Name That Stage* and Visual #2: *Healthy Behaviors* Assist participant to complete Visual #2: *Healthy Behaviors* and the section that applies to the long-term goal they have chosen; put the date in the box identifying the stage they are in opposite the applicable behavior.
	The stages of change are: • thinking about it	A person is thinking about making a change in the next 6 months.
	• ready to start the change	They are preparing for the change.
	• doing it now	They have started new behaviors.

Objective	Content	Educator's Notes
BG4. (continued)	• doing it for 6 months	They have maintained the change for at least 6 months. Note that people may also be at a "never stage," where they are not thinking about making any changes, or a "forever stage," where the behavior is so much a part of their life, they can continue it without effort.
	A person may need to make more than one change and they may be at different stages for different health habits.	For example, a person may be ready to start physical activity, but not ready to change food choices.
	Start by adding one new habit.	It is easier to add a new habit than to give up one that a person already has. For example, if a person wants to get more physical activity, they need to start with that behavior.
	Some of the ways to add and/or reinforce new habits include:	Visual #6: *Staying on the Path*
	• think about benefits and barriers to the goal/behavior change	Visual #7: *Benefits and Barriers* Assist participants to complete this visual as it relates to the long-term goal/behavior change they are using in this session. Only each person can decide if the benefit is worth the effort. If there are more barriers than benefits, they need to decide if they are still ready and willing to make the change. Recognize that doing nothing is a choice. Ask, "How will you keep track of new habits? How will you keep track of success in achieving your goal(s)?" Records should be simple and easy-to-do. Show samples of completed *behavior change records.*

Objective	Content	Educator's Notes
BG4. (continued)	• write down new habits	
	• make reminders for new habits	Ask, "What has helped remind you of new habits you are trying to make?" For example, if it is hard for a person to remember to take their pills before breakfast, they could put the bottle on the kitchen table or by the alarm clock. If it is hard to remember to take a walk, they could buy new sneakers and leave them by the door.
	• avoid situations or things that trigger the old habit	Ask, "Can you think of things that remind you of habits you are trying to break? What are ways to change your environment at home or at work?" For example, if a person wants to stop smoking, they could get rid of their ashtrays.
	• make plans to deal with barriers and setbacks	Ask, "Are there any problems, barriers, or issues related to the change that you think might happen that you can plan ahead for?" List responses. For example, is there a place to walk in good and bad weather? What food choices could be made at the next potluck or family celebration?
	• ask for help from family, friends, health care provider or other support person	Ask, "How can family and friends be most helpful to you?" For example, they can also make healthy food choices, walk, not eat tempting foods in front of the person, etc. Role-play asking for help if appropriate. Ask, "How will you reward yourself when you change a behavior?" List responses. For example, take time to do something enjoyable.

Objective	Content	Educator's Notes
BG4. (continued)	• reward self for progress • make a commitment to the goal/behavior change	A written agreement or contract to make the behavior change increases the chance of success. Show *sample contracts.*
BGGS. State or write a plan to change one or more behaviors.	A person will have more success achieving their short-term goals when their plans include: • the specific new behavior they will do • when they will start the new behavior • how long and/or how frequently they will do the new behavior • how and when they will evaluate their progress toward achieving the new behavior • how they will ask for help with the change If the plan does not work, think about why this may be happening. Some reasons a plan may not work include: • the person is not ready for change • the goal/behavior is not specific • the goal/behavior is too big • the goal/behavior is not meaningful to that person • another goal/behavior would be better at this time • the cost of achieving the goal/ behavior outweighs the benefit	Visual #8: *Changes I Can Make* Ask participants to look at all the choices and steps they have identified and think about 1-3 changes/short-term goals they would like to make to reach the long-term goal(s). For example, if the concern is lack of physical activity and the long-term goal is to walk a mile every day, the short-term goal may be to walk ¼ mile 3 times a week by the end of the month and 2 blocks by the end of the week. For example, they might ask someone to walk with them or ask family members to allow them time to walk. Encourage participants to choose specific steps over which they have control. Have participants ask themselves these questions if the plan does not work: • Is the goal too big? • Are you trying to do too much? • Would a different goal be better? • Do the costs outweigh the benefits? • Is the goal meaningful?

Objective	Content	Educator's Notes
BGGS. (continued)	It is okay to choose a new goal and make a new plan. A person may have days when they do not stick to their plan to meet their goals. They should not let this get them down. It is best to pick up where they left off and begin again the next day.	 If this happens, it is helpful to think about what situations interrupted their plan, what they learned and what they might do differently next time. Encourage discussion about "lessons learned" and how to "pick up" where a person left off.

SKILLS CHECKLIST

Each participant will be able to identify a long-term diabetes-related goal and develop a behavior change plan for that goal.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by the development of a personal behavior change plan. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes*.

Setting Goals

Things were going well with taking care of your diabetes. Six months ago you had stopped drinking regular soda, had started walking for 20 minutes 5 days a week and were taking the diabetes pills the clinic gave you. Your A1c had come down from 10.6% to 7.2% over a 3-month period. Then, a few months ago, you started a new job that required you to work different shifts. You stopped walking as much. You started skipping meals, snacking a lot and drinking regular soda again. Now your A1c is 8.8%.

1. **What stage of change are you in now with your eating behavior and activity?**

_____
_____
_____
_____
_____

2. **What are some reasons a behavior change plan might not work?**

_____
_____
_____
_____
_____

3. **What would you do to add or reinforce new habits now?**

_____
_____
_____
_____
_____

Setting Goals

Things were going well with taking care of your diabetes. Six months ago you had stopped drinking regular soda, had started walking for 20 minutes 5 days a week and were taking the diabetes pills the clinic gave you. Your A1c had come down from 10.6% to 7.2% over a 3-month period. Then, a few months ago, you started a new job that required you to work different shifts. You stopped walking as much. You started skipping meals, snacking a lot and drinking regular soda again. Now your A1c is 8.8%. What can you do?

1. **What stage of change are you in now with your eating behavior and activity?**

   A person is more likely to succeed in changing habits if they start with something they want to do and are ready to do. Success helps a person feel like they can make changes. A person can see how ready they are to change a habit by seeing what stage of change they are at. The stages of change are:

   - thinking about it (you are thinking about making a change in the next 6 months)
   - ready to start the change (you are preparing for the change)
   - doing it now (you have started new behaviors)
   - doing it for 6 months (you have maintained your change for at least 6 months)

   People may also be at a "never stage," where they are not thinking about making any changes or a "forever stage," where the behavior is so much a part of their life, they can continue it without effort. A person may need to make more than one change and they may be at different stages for different health habits. For example, you may be ready to start physical activity, but not ready to change your food choices.

2. **What are some reasons a behavior change plan might not work?**

   Some reasons a plan may not work include:
   - the person is not ready for change
   - the goal/behavior is not specific
   - the goal/behavior is too big
   - the goal/behavior is not meaningful to that person
   - another goal/behavior would be better at this time
   - the cost of achieving the goal/behavior outweighs the benefit

   It is okay to choose a new goal and make a new plan. A person may have days when they do not stick to their plan to meet their goals. They should not let this get them down. It is best to pick up where they left off and begin again the next day.

3. **What would you do to add or reinforce new habits now?**

   It is easier to add a new habit than to give up one that you already have. For example, if you want to get more physical activity, start with that behavior. Ways to add and/or reinforce new habits include:
   - think about benefits and barriers to the goal/behavior change
   - write down new habits
   - make reminders for new habits
   - think about what gives you strength to keep going, write it down and look at it often
   - avoid situations or things that trigger the old habit
   - make plans to deal with barriers and setbacks
   - ask for help from family, friends, health care provider, diabetes educator or other support person
   - reward yourself for progress
   - make a commitment to the goal/behavior change

SESSION

4

Healthy Eating

DM-N
Introduction to Healthy Eating, Basics of Healthy Eating, and Heart Healthy Eating

STATEMENT OF PURPOSE

This session provides basic information and tools for personal decisions regarding food choices for blood sugar control, heart health and overall health.

PREREQUISITES

Complete Section 1: *Introduction to Healthy Eating* prior to Section 2: *Basics of Healthy Eating.*

LEARNING OBJECTIVES

Section 1: Introduction to Healthy Eating

DM-N1	Describe the effect of food on diabetes.
DM-N2	State that healthy food choices are good for the person with diabetes and their whole family.
DM-N3	Describe how timing and consistency of food can help people with diabetes reach their target blood sugar goals.
DM-N4	Describe the effect of portion sizes on blood sugar.
DM-N5	State that eating less sugar and fat can help lower blood sugar.
DM-N6	State how keeping a record of food eaten can help people with diabetes reach their target blood sugar goals.
DM-NGS	State or write a personal plan for making healthy food choices.
DM-NGNS	Behavior goal not set (follow-up).
DM-NGM	Behavior goal met (follow-up).
DM-NGNM	Behavior goal unmet (follow-up).

Section 2: Basics of Healthy Eating

DM-N7	State 2 or more benefits of healthy food choices for the person with diabetes.
DM-N8	Record a day's meals onto a food record.
DM-N9	Discuss the basic food groups.
DM-N10	Identify the food groups high in carbohydrates and recognize their effect on blood sugar.
DM-N11	State that weight loss can help people with diabetes reach their target blood sugar goals.
DM-N12	Discuss how to find reliable resources for nutrition facts and answers to questions.
DM-NGS	State or write a personal plan for making healthy food choices.
DM-NGNS	Behavior goal not set (follow-up).
DM-NGM	Behavior goal met (follow-up).
DM-NGNM	Behavior goal unmet (follow-up).

Section 3: Heart Healthy Eating

DM-N13	State that heart healthy food choices are good for the person with diabetes and their whole family.
DM-N14	Identify foods that increase the risk for heart disease.
DM-N15	Identify foods that decrease the risk for heart disease.
DM-N16	Identify 2 or more ways to choose foods to lower the risk for heart disease.
DM-NGS	State or write a personal plan for making healthy food choices.
DM-NGNS	Behavior goal not set (follow-up).
DM-NGM	Behavior goal met (follow-up).
DM-NGNM	Behavior goal unmet (follow-up).

CONTENT

Nutritional management

MATERIALS NEEDED

Sections 1 and 2: Introduction to Healthy Eating and Basics of Healthy Eating

Visuals Provided

#1 *What I Need to Know About Eating and Diabetes*
#2 *The Food Pyramid*
#3 *Helping Hands*
#4 *Portion Sizes You Will Understand*
#5 *Hidden Fats*
#6 *Hidden Sugars*
#7 *Hidden Fats and Sugars*
#8 *Food Record*
#9 *Choosing Good Foods*
#10 *Plate Method: (Breakfast and Lunch/Dinner)*
#11 *Nutrients in Food Groups*
#12 *Tribe Wins at Losing Weight*
#13 *Diabetes and Nutrition: Common Questions, Clear Answers*
#14 *Changes I Can Make*

Additional:

First Step in Diabetes Meal Planning
Sample of completed food records
Food models (plastic and/or paper)
Food packages with ingredients listing and nutrition facts label
Paper plates
Samples of foods common in participants' community
Local *resource list* for meal planning and weight loss
Local *resource list* for reliable nutrition information

Section 3: Heart Healthy Eating

Visuals Provided

#2 *The Food Pyramid*
#5 *Hidden Fats*
#7 *Hidden Fats and Sugars*
#15 *How to Have a Healthy Heart*

Additional:

Sample of completed food records
Food models (plastic and/or paper)
Food packages with ingredients listing and nutrition facts label
Fat tubes
Fat model
Model of arteries with fat

METHOD OF PRESENTATION

Introduction to Healthy Eating provides the survival skills needed to help patients make initial changes in eating behaviors. *Basics of Healthy Eating* and *Heart Healthy Eating* build on the *Introduction to Healthy Eating* session. The instructor will need to provide content in 2 or more sessions depending on participant knowledge and learning needs. Generally, Section 1: *Introduction to Healthy Eating* would be offered first. However, the instructor may choose to offer Section 3: *Heart Healthy Eating* first if the participant has an interest in, or need for, this content.

In order to use teaching materials effectively, instructors need to become familiar with the variety of materials available for this session. It is important for instructors to point out specific content in the materials and explain it. Instructors need to avoid giving these materials to participants without explanation.

Use a creative icebreaker. (See Introduction on p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with diabetes. Explain that the purpose of this session is to discuss how food choices affect diabetes and provide practical ideas for food choices to achieve target blood sugar goals and/or heart health.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate the discussion. Have a variety of teaching tools available based on participants' learning needs. Be creative

and encourage interaction. Use food records or develop examples that participants can use for problem-solving. Encourage participants to have the person who prepares their food attend this session with them.

CONTENT OUTLINE

Section 1: Introduction to Healthy Eating

Objective	Content	Educator's Notes
N1. Describe the effect of food on diabetes.	Food raises blood sugar. When, what and how much a person eats affects how much their blood sugar rises. When a person knows what is in the food they eat and how it affects their blood sugar, they can make choices about when, what and how much to eat. Small changes in a person's food choices can make a big difference in their blood sugar over time.	Ask, "What changes have you made in your food choices since you learned you had diabetes? How do you feel about them?" List responses. Each person's blood sugar response to food varies. Checking blood sugar at home helps a person learn how food affects blood sugar. Stress the importance of balancing food choices with physical activity and medicines, if needed, to reach blood sugar goals.
N2. State that healthy food choices are good for the person with diabetes and their whole family.	There is no single "diet" for a person with diabetes. People with diabetes can eat the same things as people who do not have diabetes.	Ask participants, "How do the food choices you make affect your family? How does your family feel about the changes you made?" List responses.

Objective	Content	Educator's Notes
N2. (continued)	The food choices people with diabetes need to make are good for everyone in the family. Making healthy food choices helps the whole family: • feel better • stay healthy • reach and maintain a healthy weight Healthy food choices may help family members prevent or delay diabetes. These are some of the ways people with diabetes and their families can eat healthily: • eat smaller portions of food • drink more water • eat more high fiber foods such as fruits, vegetables and whole grains • eat smaller portions of food high in sugar and fat • eat when hungry and stop when full • drink less alcohol	Discuss session content with the health of the whole family in mind. Encourage healthy food choices for every member of the family. Emphasize that people with diabetes are no different than those without diabetes in their need for healthy foods. Drinking alcohol can make it harder to reach target blood sugar goals and can make some problems worse. Discuss use of alcohol with the diabetes care team.
N3. Describe how timing and consistency of food can help people with diabetes reach their target blood sugar goals.	When, what and how a person eats affects their blood sugar. Eating the same amount of food, at about the same time each day helps: • keep the blood sugar from being too high or too low	Visual #1: *What I Need to Know About Eating and Diabetes*, pp. 4-5 Ask, "What times do you usually eat? Do these times change day to day? What makes it easy for you to eat about the same time every day? What makes it hard?" List responses.

Objective	Content	Educator's Notes
N3. (continued)	• diabetes medicines work better to keep blood sugar at target goal	Some people do not need diabetes medicine to reach their target blood sugar goals. Visual #1: *What I Need to Know About Eating and Diabetes*, p. 6
	These things will help people reach their target blood sugar goals: • eat at least 3 times a day • eat each meal and snack at about the same time each day	A person also needs to balance the time they eat with diabetes medicine and physical activity. Do physical activity at about the same time every day and take diabetes medicine at about the same time every day.
	• eat about the same amount of food at each meal each day	Small meals throughout the day keep the blood sugar balanced.
	• do not skip meals	When a person skips a meal they are more likely to overeat at the next meal, or look for a quick snack that may not be a healthy food choice. They can plan ahead so they do not miss meals by: • packing a lunch or snack when away from home for meals • setting a timer as a reminder of when to eat • planning to eat with a family member, friend or coworker If they do miss a meal, they can keep these things on hand: • washed, cut-up vegetables and fruits for quick snacks • a small portion of low fat granola bars, crackers or pretzels • low fat cheese, lean lunch meats and low fat yogurt • a small package of nuts
	• eat breakfast	

Objective	Content	Educator's Notes
N3. (continued)	A person is more likely to reach their blood sugar goals if they eat small amounts of food every 3-5 hours rather than eating a lot of food at 1 or 2 meals each day.	
N4. Describe the effect of portion sizes on blood sugar.	The amount of food a person eats affects their blood sugar. Too much food at one time can raise the blood sugar too high. Eating less food at one time does not raise blood sugar as much. A **portion** is how much of something a person eats. A portion is also called a **serving**. Some ways to eat smaller portions are: • eat one serving • use measuring spoons and cups to measure portions • use a small plate • eat more slowly • put fork down between bites A simple way a person can choose healthy portions of food is to use the hand as a guide. For example: • eat meat portions the size of their palm and the thickness of their little finger	Visual #2: *The Food Pyramid* Ask, "How do you know you are eating too much?" List responses. If a person eats smaller amounts of food during the day, the body needs less insulin to move the sugar from the food into the body cells. Check blood sugar at home after eating to learn the effect of food on blood sugar. Use the term that is appropriate for participants' community. Ask, "What are some ways to eat less food?" List responses. Encourage participants to listen to their stomach and stop eating when they are comfortably full, not over-filled. Visual #1: *What I Need to Know About Eating and Diabetes*, pp. 40-41, and Visual #3: *Helping Hands* Remind participants they always have their hands with them and they are always the same size. Assist participants to use the "Helping Hands" method to estimate portion size.

Objective	Content	Educator's Notes
N4. (continued)	• eat vegetable portions as much as they can hold in their cupped hands • eat starchy vegetables, beans, cereal and rice portions the size of their fist • eat a serving of fruit the size of their fist	Discuss Visual #4: *Portion Sizes You Will Understand* and/or use food models and samples of foods commonly used in participants' community for more ideas and practice on how to choose healthy portions. Visual #1: *What I Need to Know About Eating and Diabetes*, pp. 9-12
	The total amount of food a person eats each day is also important. Eating less food will help some people reach and maintain a healthy weight. Even healthy foods can raise blood sugar too much if a person eats too much of them.	How much food a person needs to eat depends on: • whether they are a man or a woman • how much they weigh • how tall they are • their age • how much physical activity they get • the type of work or activity they do every day Optional activity: Assist participants in completing *Make Your Own Diabetes Food Pyramid,* p. 12 in Visual #1: *What I Need to Know About Diabetes*. **Refer participants to a registered dietitian to learn more about the food portions that are best for them.**
N5. State that eating less sugar and fat can help lower blood sugar.	Eating less sugar and fat can help: • lower blood sugar • reduce weight	Visual #1: *What I Need to Know About Eating and Diabetes*, p. 33-34 Ask, "What do you think might happen if you eat less foods that are high in sugar and fat?" List responses. When a person eats less sugar and fat, they are eating fewer calories. Eating fewer calories may help them reach and maintain a healthy weight.

Objective	Content	Educator's Notes
N5. (continued)	• lower the chance for heart disease	See Section 3: *Heart Healthy Eating.*
	These are some things that can help a person eat less sugar and fat:	Ask, "What are some foods high in sugar and high in fat? What are ways that you can eat or drink less sugar and fat?" List responses.
	• eat foods from all the food groups • choose foods and drinks with little or no added sugar • drink small portions of fruit juice • eat less "fast food" • eat less chips and candy	Food groups are covered in Objective N9.
	• eat small portions of seeds and nuts	A healthy portion of seeds and nuts is not more than a small handful in one day.
	• bake, broil, boil, grill or microwave foods • share a piece of dessert with a friend • choose smaller portions	Visual #5: *Hidden Fats*, Visual #6: *Hidden Sugars,* Visual #7: *Hidden Fats and Sugars* Explain that many foods have sugars and fats that cannot be seen. For example, a person can see the sugar in table sugar and syrup, but Gatorade® has sugar they do not see. They can see the fat in butter and meat, but peanut butter and hot dogs have hidden fats. When a person sees the sugar and fat they can choose to avoid them. It is harder to avoid sugar and fat when they cannot be seen in foods.
N6. State how keeping a record of food eaten can help people with diabetes reach their target blood sugar goal.	Food records help people make changes to reach their target blood sugar goal.	Visual #8: *Food Record* Ask, "How could writing down what you eat and drink help you reach your blood sugar goals?" List responses.
	People are not always aware of what they eat or drink during the day. Writing it down can help them be more aware.	The person with diabetes and their diabetes care team need to know what is being eaten now to see what changes would help.

Objective	Content	Educator's Notes
N6. (continued)	A food record shows what a person eats in a day: • what foods a person eats and drinks • how the food is prepared • the amounts of food eaten • the times during the day food is eaten • the place a person eats Food records can help a person reach their blood sugar goals by telling them: • if they are eating too much of some foods • if they are eating too little of some foods • if they are skipping meals • if they are eating too many snacks • if they are eating in response to emotions	Food records help the person with diabetes and the diabetes care team learn about patterns in: • timing of eating • location of eating • food preparation • food preferences • emotional eating • total food intake Show samples of completed food records. See Objective N8 for details on completing a food record. Participants may complete a day's food record at this time if appropriate.
NGS. State or write a personal plan for making healthy food choices.	Making changes in health habits, such as choosing healthy portions and eating less sugar and fat, is easier when plans are broken down into small, easy-to-do-steps.	Visual #14: *Changes I Can Make* Assist participants to make a personal plan for making healthy food choices. See Session 3: *Making Healthy Changes*.

Section 2: Basics of Healthy Eating

Objective	Content	Educator's Notes
N7. State 2 or more benefits of healthy food choices for people with diabetes.	Making healthy food choices helps people with diabetes: • reach and maintain target blood sugar goals • reach and maintain target blood fat goals	Ask, "How does making healthy food choices help you?" List responses. Blood sugar goals are covered in Session 1. Blood fat goals are covered in Session 8.

Objective	Content	Educator's Notes
N7. (continued)	• reach and maintain target blood pressure goals • reach and maintain a healthy weight • prevent, delay or treat diabetes complications • improve overall health	Blood pressure goals are covered in Session 8. See Objective N11 for details on weight loss. Chronic complications are covered in Session 10. Healthy food choices help people have more energy and increase the body's ability to fight infection.
N8. Record a day's meals onto a food record.	These are steps to complete a food record: • choose the days to keep a food record • write down: - all the food eaten and drank - an estimate of the amount of food eaten and drank - the time food is eaten and drank - how the food was prepared - where the food is eaten and drank Food records help people learn a lot about how they are eating so they can make healthier choices.	Visual #8: *Food Record* Use the *Food Record* for discussion during this session. Suggest varying the days chosen, such as weekdays and weekends. Write down even small bites of food. Visual #4: *Portion Sizes You Will Understand* When beginning to keep a food record, it helps to measure food a few times with measuring cups and spoons. This will help the estimate match more closely the actual amount of food eaten. Write down foods and drinks as soon as they are eaten so they are not forgotten. Keeping a food record can be a lot of work, but the time spent keeping records will help a lot with making needed changes in the long run. Visual #9: *Choosing Good Foods* may be used as an alternative to a food record to identify current foods eaten with a checklist format.

Objective	Content	Educator's Notes
N8. (continued)		If a person wants to learn more about why they eat the way they do, they can also write down: • how long it took to eat • who they eat with • what they are doing while eating • what they are feeling • how hungry or full they are before and after eating, using a scale of 1 (starving where the stomach hurts) to 10 (holiday-stuffed), with 5 being comfortable or just right Some people may want to try writing down what they **plan** to eat to help them with choosing portions. Assist participants to complete a food record with a food recall from the day before. Have sample recalls available for people who may find it easier to apply learning to the "third person."
N9. Discuss the basic food groups.	Foods can be grouped into: • starches • fruit • vegetables • meat and meat substitutes • milk • fats and sweets All food groups are important. There is not one food group that can provide all the nutrients the body needs to stay healthy. Some of the foods in each group are:	Visual #1: *What I Need to Know About Eating and Diabetes,* p. 8, and Visual #2: *The Food Pyramid* Review the pyramid with participants and use it for discussion of the food groups and recommended servings of each. Emphasize that people need to eat a variety of foods each day to get all of the vitamins, minerals and nutrients needed for good health.

Objective	Content	Educator's Notes
N9. (continued)	<u>Starches</u> Bread, rolls, bagels, English muffins, tortillas, pita bread, pasta, noodles, spaghetti, macaroni, rice, cereal (dry or cooked), legumes like lentils, dried or canned beans (garbanzo, kidney, black, pinto, butter), dried peas (split or black-eyed) and starchy vegetables like potatoes, corn, green peas, squash and taro root	Visual #1: *What I Need to Know About Eating and Diabetes,* pp. 13-16 Assist participants to identify these food groups in their food record.
	<u>Fruit</u> Apples, oranges, bananas, berries, and all other fruits, except avocado, that are fresh, frozen, canned or juiced	Visual #1: *What I Need to Know About Eating and Diabetes,* pp. 21-24
	<u>Vegetables</u> Carrots, green beans, peppers and chilies, onions, wax beans, broccoli, beets, greens, okra and all other crunchy vegetables	Visual #1: *What I Need to Know About Eating and Diabetes,* pp. 17-20
	<u>Meat and meat substitutes</u> Beef, pork, lamb, chicken, turkey, fish, wild game, seal, whale, eggs, cheese and peanut butter	Visual #1: *What I Need to Know About Eating and Diabetes,* pp. 29-32
	<u>Milk</u> All milk products and yogurt (plain or artificially sweetened)	Visual #1: *What I Need to Know About Eating and Diabetes,* pp. 25-28
	<u>Fats and sweets</u> Butter, margarine, cream, oil, seal oil, whale blubber, salad dressing, mayonnaise, sour cream, cream cheese, coffee creamer, bacon, lard, fatback, nuts and seeds, sugar, honey, maple syrup, cookies, cakes, doughnuts, candy and soda	Visual #1: *What I Need to Know About Eating and Diabetes,* pp. 33-36
	People need to eat the most servings from the starches, vegetables and	Visual #2: *The Food Pyramid*

Objective	Content	Educator's Notes
N9. (continued)	fruits—the largest section of the food pyramid. People need to eat small amounts of fats and sweets—the smallest sections of the food pyramid. The "Plate Method" is a simple guide for choosing healthy kinds and amounts of food. The "Plate Method" shows how much space different food groups should take on the plate.	Visual #10: *Plate Method* Assist participants to use their food record to compare their food selection for one meal to the recommended "plate." Ask participants to share observations. List responses.
N10. Identify the food groups high in carbohydrate and recognize their effect on blood sugar.	Some foods make a person's blood sugar go up more and faster than other foods. Carbohydrate, protein and fat affect blood sugar. Carbohydrate foods affect blood sugar the most. Starch, fruit and milk are the food groups high in carbohydrate. Sweet foods and drinks are also high in carbohydrate. Small amounts of carbohydrate are in foods from the vegetable group.	Visual #11: *Nutrients in Food Groups* Carbohydrate is a nutrient and includes sugar and starch. The body burns carbohydrate for energy. Protein is a nutrient that builds and repairs muscle and skin and is part of every cell in the body. Fat is a nutrient that supplies energy, keeps skin healthy and is needed to carry some vitamins. The other nutrients are vitamins, minerals, fiber and water. Protein foods have a little effect on blood sugar, except when they are eaten in big portions (6 ounces or more). Assist participants to identify carbohydrate foods in their food record. Food models and samples of foods commonly used in the community may also be used.

Objective	Content	Educator's Notes
N10. (continued)	Most foods that have carbohydrates are healthy foods people need to eat. But eating too much carbohydrate food at one time can cause high blood sugar. A registered dietitian can help people learn how much carbohydrate is best for them.	We need carbohydrate—that is why it is the largest portion of the food groups on the food pyramid. Many of the carbohydrates are important sources of nutrients that help prevent disease. A registered dietitian will decide how much carbohydrate is best for each participant. **Refer participants to a registered dietitian as appropriate.** Visual #2: *The Food Pyramid*
	People need more than one portion of carbohydrate food at each meal: • women need about 3-4 servings • men need about 4-6 servings • snacks need to include no more than 1-2 servings	Discuss participants' food record. Ask, "Were the number of carbohydrate food portions you ate smaller, bigger or the same?" If a person is trying to lose weight, they might limit portions to: • women: 2-3 servings • men: 3-4 servings Emphasize the importance of checking blood sugar at home to see how food choices, physical activity and medicine, if needed, are working to reach target blood sugar goals. Checking blood sugar 2 hours after a meal starts can tell a person the number of carbohydrate portions that are best, or if a certain carbohydrate food raises blood sugar more than other carbohydrate foods.
N11. State that weight loss can help people with diabetes reach their target blood sugar goals.	Weight loss is one way to lower blood sugar. Weight loss: • makes the body cells more sensitive to insulin and insulin works better • helps people reach target blood sugar goals	Visual #12: *Tribe Wins at Losing Weight* A loss of 5-10 pounds will help lower blood sugar. Weight loss helps people at risk for diabetes reduce their chances of developing diabetes.

Objective	Content	Educator's Notes
N11. (continued)		Weight loss can help people reach their target blood pressure and blood fat goals.
	These things may help people lose weight or keep them from gaining more weight:	Ask participants to share the things they do, or have done in the past, to lose weight. List responses. Review food record to see what participants are doing and what changes they could be making.
	• be more active every day • eat breakfast and try not to skip meals • eat when hungry and stop when feeling full	Try walking, dancing or another enjoyable activity.
	• join an activity, weight loss and/or support group • eat more fresh fruits, vegetables and whole grains • choose lean meat, fish, poultry and skim milk	Provide local *resource list.*
	• use low fat cooking methods	Try a cooking class for ideas. Provide local *resource list.*
	• drink a lot of water	Try for about 8 glasses of water each day.
	• try to eat more meals at home and fewer meals in restaurants • eat less "fast food"	Pack lunches and snacks to take to work.
	• choose smaller portions of foods made with added fat and foods high in fat • make healthy choices for between-meal snacks • choose calorie-free or reduced calorie drinks • use smaller plates or bowls for meals	Remind participants that carbohydrate, protein and fat all provide calories to our bodies. Fat gives more calories per serving than both carbohydrate and protein. Fat is most easily changed to body fat—although too much protein and carbohydrate will also be stored as body fat. Foods that are high in water and fiber have fewer calories per bite. They take more time to chew, take longer to eat and can help a person feel full for a longer time.

Objective	Content	Educator's Notes
N11. (continued)		**Refer participants to a registered dietitian for assistance with weight loss as appropriate.**
N12. Discuss how to find reliable resources for nutrition facts and answers to questions.	These are some ways people can find resources that provide good nutrition information: • ask a registered dietitian or other member of the diabetes care team • contact organizations such as the American Diabetes Association and the American Dietetic Association • read newsletters • search the Internet • attend cooking classes and supermarket tours	People may read or hear information that is different than current thinking about what is good for health. Discuss things to be careful of and how to evaluate information. Distribute *resource list*, including reliable journals, websites, etc. (See Resource Directory in Appendix.) Distribute Visual #13: *Diabetes and Nutrition: Common Questions, Clear Answers*
NGS. State or write a personal plan for making healthy food choices.	Making changes in health habits, such as choosing foods to lose weight or to reach target blood sugar goals, is easier when plans are broken down into small, easy-to-do steps.	Visual #14: *Changes I Can Make* Assist participants to make a personal plan for making healthy food choices. See Session 3*: Making Healthy Changes*

Section 3: Heart Healthy Eating

Objective	Content	Educator's Notes
N13. State that heart healthy food choices are good for the person with diabetes and the whole family.	People with diabetes have a greater chance of having heart disease than people without diabetes. But all people are at risk for heart disease. Foods that can help people with diabetes have a healthy heart are also good for the heart health of the whole family.	Visual #15: *How to Have A Healthy Heart* and Visual #2: *Food Pyramid* Ask, "What can you do to keep your heart healthy?" List responses. There are many things people can do to prevent or delay heart disease. They include:

Objective	Content	Educator's Notes
N13. (continued)	Food choices that help people reach and maintain a healthy weight and reach and maintain blood fat and blood pressure goals, help everyone in the family prevent heart disease.	• keeping blood sugar, blood pressure and blood fats at target goal • staying at a healthy weight • being more active • seeing a health care provider every six months • taking aspirin when prescribed • stopping tobacco use • managing stress Heart disease is covered in Session 10.
N14. Identify foods that increase the risk for heart disease.	<u>Eating foods high in saturated fat and trans fat can increase the chance of heart disease</u>. The body makes its own cholesterol. It is needed for good health. Sometimes there is too much cholesterol in the blood because: • the body makes too much cholesterol • the person is eating too many foods high in saturated fat Foods high in saturated fat increase the amount of fat and cholesterol in the blood. These are foods that are high in saturated fats: animal foods: • foods fried in lard or butter • "fast foods" • meat • bacon, sausage • Spam, hot dogs, Vienna sausages, potted meat • corned beef hash • cheeses	There are two kinds of cholesterol in the blood: • LDL (lousy or bad cholesterol) • HDL (happy, healthy or good cholesterol) Too much LDL can increase the chance of heart disease. Blood fat goals are covered in Session 8. Ask, "What are some foods that are high in fat?" List responses. Use food models, packages with ingredient listing and samples of foods commonly used in the community for demonstration.

Objective	Content	Educator's Notes
N14. (continued)	• whole/2% milk • ice cream • butter • lard • sour cream, cream cheese • salad dressings made with added bacon, sour cream and/ or cheese tropical fats: • coconut, palm and palm kernel oils	
	Hydrogenated or partially hydrogenated fats (trans fats) can also increase the chance of heart disease. They are found in: • stick margarine • solid shortening • regular peanut butter • foods fried in shortening or margarine • most crackers and other snack foods • baked goods like cookies, pies and cakes • fried "fast foods" • chocolate	These fats are solid at room temperature and are often used as ingredients in packaged foods. Solid shortening comes in a can or a stick.
	<u>Eating foods high in salt or sodium can increase the chance of heart disease</u>.	
	Eating foods high in salt or sodium can increase blood pressure.	Salt is made of sodium chloride. Sodium is a mineral needed by the body, but in very small amounts. The amount of sodium that is needed by the body will be different in different people.
	These are examples of foods high in salt or sodium: • table salt	**Participants need to work with their registered dietitian to decide on the amount of salt and sodium that is best for them.**

Objective	Content	Educator's Notes
N14. (continued)	• seasonings that contain salt or sodium • lunch meats • any pickled foods • smoked foods • canned foods • bacon • "fast foods," convenience and many frozen foods • meat tenderizers • canned vegetables • dried soups • rice, noodle and potato mixes • salted snack foods	Examples are garlic salt, onion salt, soy sauce and lemon pepper. Examples are canned vegetables, meats (such as Spam) and soups. An example is ramen noodles. Examples are salted chips, nuts, seeds, pretzels and french fries.
N15. Identify foods that decrease the risk for heart disease.	<u>Choosing foods naturally low in fat will help lower blood fats and prevent heart disease</u>. They include: • fruits • vegetables • whole grains like barley and wild rice • whole grain breads, cereals and pastas • dried peas and beans • very lean meats, birds, fish and shellfish <u>Choosing foods with monounsaturated fats will help lower LDL cholesterol and help prevent heart disease</u>. They include: • olives and olive oil • canola oil • peanuts or peanut oil • avocados • almonds, cashews, pistachios and other nuts	Ask, "What foods could you eat that are good for your heart?" List responses. Monounsaturated fats lower LDL ("bad") cholesterol, but do not affect the HDL ("good") cholesterol levels. Some fish contain another type of fat that helps lower a person's risk for heart disease. Examples are fatty fish like salmon, herring, albacore tuna, sardines and lake trout. This is why experts recommend eating fish twice a week.

Objective	Content	Educator's Notes
N15. (continued)	Choosing foods low in salt and sodium can help lower blood pressure and prevent heart disease. They include: • herbs and spices instead of salt to give food flavor • fresh meats instead of lunch meats, pickled or smoked meats • fresh or frozen vegetables instead of canned vegetables • low sodium and salt-free products • soups and stews made from fresh ingredients rather than packaged foods • fruit and vegetables for snacks in place of salted snack foods	Use food packages with ingredient listings and food models for demonstration. Examples are oregano, garlic, onion, cilantro, cumin, chili powder, pepper, fresh chili and salt-free blends, such as Mrs. Dash. If using canned vegetables, drain liquid and reheat them in fresh water.
	Choosing foods high in fiber lowers cholesterol and can help prevent heart disease. People can choose to eat: • fruits and vegetables • 100% whole grain breads and breakfast cereals • brown rice, wild rice and whole grain noodles • oatmeal, barley, corn meal and whole wheat flour • beans, peas and lentils	High fiber foods prevent cholesterol from being absorbed by the body. Have food packages and food models of plant foods high in fiber available to show participants. See listing of fruits and vegetables in Objective N-9. An example is cracked whole wheat bread.
N16. Identify 2 or more ways to choose foods to lower the risk for heart disease.	These are things that a person can do to eat less fat: • choose lean meats such as chicken, turkey, 10% fat ground beef (or less) and fish like tuna or salmon	Ask, "What are changes you can make in your food choices to lower your chances for heart disease?" List responses. Ask, "What is a change you might make to eat less fat?" List responses.

Objective	Content	Educator's Notes
N16. (continued)	• choose 95% (or greater) fat-free lunch meats for sandwiches • limit high fat meats such as bacon, sausage, Vienna sausage, potted meat, Spam, bologna, hot dogs and chorizo • bake, broil, boil, microwave or barbecue meats • drink 1%, ½%, or skim milk • choose lower fat or fat-free cheese and eat smaller amounts of all cheeses • try to keep egg yolks to 2 or less per week • choose egg whites or egg substitute products • use less (or do not use) butter, sour cream, cream cheese, mayonnaise, shortening, lard and regular peanut butter • choose lower fat or non-fat products for salad dressings, sour cream, cream cheese and mayonnaise • choose baked products that are lower in fat • use liquid oils when cooking • select lower fat varieties of tub margarines	Review Visual #5: *Hidden Fats* and Visual #7: *Hidden Fats and Sugars*
	<u>These are things people can do to eat less salt</u>: • use less salt in cooking and at the table • use more herbs and spices instead of salt to give food flavor • cook meat slowly and at a lower temperature to make it more tender and use smaller amounts of meat tenderizers, or none at all • eat smaller portions of lunch meats and eat them less often	Ask, "What could you do to eat less salt and sodium?" List responses.

Objective	Content	Educator's Notes
N16. (continued)	• add fresh vegetables (like onion, tomato, lettuce) to meat and cheese sandwiches to help eat smaller portions of lunch meats and cheeses • eat smaller portions of pickled and smoked foods and eat them less often • drain liquid from canned foods and reheat them in fresh water • add fruits and fresh or frozen vegetables to all meals • use fruits and vegetables as snacks in place of salted snack foods	
	<u>These are things people can do to eat more fiber</u>: • eat at least 5 servings of fruits and vegetables every day • eat 2 vegetables at every meal • eat fruit and vegetables for snacks • eat fruit for dessert • make fruit desserts like crisps or cobblers instead of cake or pie • try eating 100% whole grain or whole wheat breads for toast and sandwiches • enjoy a whole grain cereal for breakfast or a snack • try mixing brown rice or wild rice with white rice • mix whole grain with white noodles or pasta • add brown rice or barley to casseroles and soup • bake with cornmeal and whole wheat flour in place of all or some of the white flour in a recipe • try corn tortillas or whole wheat flour tortillas	Ask, "How could you add more fiber to your meals?" List responses. Share examples of ways to add fiber to specific meals: Breakfast: • oatmeal, whole wheat toast, fresh fruit • high fiber cold or dry cereal, fresh fruit • whole wheat English muffin, poached egg Lunch: • turkey sandwich on whole wheat bread with lettuce and tomatoes, fresh fruit • vegetable barley soup with whole wheat bread, fresh fruit • corn bread, pinto beans, and tossed salad with low fat dressing Dinner: • pinto beans with tomatoes, onions, bell peppers served with rice, corn meal tortillas, tossed salad with low fat dressing

Objective	Content	Educator's Notes
N16. (continued)	• add beans to soups and casseroles • drain a can of beans and eat some on a salad • try chili made with 2 or 3 kinds of beans • add lentils to soup	• baked chicken, broccoli, baked potato, fresh fruit and whole wheat rolls **Refer participants to a registered dietitian for assistance with choosing foods to lower their risk for heart disease.** Provide local *resource list* for cookbooks, cooking classes, supermarket tours, support groups, etc.
NGS. State or write a personal plan for making healthy food choices.	Making changes in health habits, such as choosing foods for heart health, is easier when plans are broken down into small, easy-to-do steps.	Participants need to identify their personal long-term goal for blood fats and blood pressure, develop a plan to achieve it and identify small steps and behavior changes they can start now related to food choices. Emphasize the importance of having support for making changes. Visual #14: *Changes I Can Make* Assist participants in making personal plans for healthy food choices. See Session 3: *Making Healthy Changes*.

SKILLS CHECKLIST

Participants will be able to use a food record and develop a personal plan for food choices that will assist with reaching target blood sugar goals and achieving heart health.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by identifying personal meal planning goals and implementation of a plan to achieve those goals. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes*.

Potlucks

Tomorrow night is your cousin's 18th birthday. His family is having a big celebration for him, including a potluck meal. Many people have been invited and there will be a lot of good tasting food, including cake, ice cream and other sweets. You have not been to a potluck meal since you were diagnosed with diabetes. You have made a lot of changes in your eating habits since then. Now you are wondering what food you should bring to the birthday celebration and what food you should eat while you are there.

1. **What can you do about food choices and managing your diabetes at unusual or special times like potlucks?**

_____
_____
_____
_____
_____

2. **What food would you bring to this potluck?**

_____
_____
_____
_____
_____

3. **How would you plan ahead for potlucks and other special occasions?**

_____
_____
_____
_____
_____

Potlucks

Tomorrow night is your cousin's 18th birthday. His family is having a big celebration for him, including a potluck meal. Many people have been invited and there will be a lot of good tasting food, including cake, ice cream, and other sweets. You have not been to a potluck meal since you were diagnosed with diabetes. You have made a lot of changes in your eating habits since then. Now you are wondering what food you should bring to the birthday celebration and what food you should eat while you are there.

1. **What can you do about food choices and managing your diabetes at unusual or special times like potlucks?**

   Some ways to handle this situation are:

   - eat smaller portions
   - do not take seconds
   - avoid or eat small portions of obviously sweet foods, high fat foods, sauces, gravies and alcohol
   - take dessert but eat none, eat only a small amount, or take it home
   - be last in line so some of the food is gone
   - take a walk after eating
   - check your blood sugar 2 hours after eating to see how your food choices affected it

   If the potluck does not go as planned, start over tomorrow and think about ways you could do it differently next time.

2. **What food would you bring to this potluck?**

   Bring a food or dessert that fits in with the way you are eating, such as:

   - diet soft drinks
   - plain vegetables
   - homemade bread
   - homemade desserts with less fat and sugar

3. **How would you plan ahead for potlucks and other special occasions?**

   Some ways to plan ahead are:

   - decide before you go out how you will handle the situation
   - write down what you plan to eat
   - ask for help from a support person
   - practice conversation such as: "I appreciate the offer, but I cannot eat any more," or "I will try some later," or "I will try a little bit."
   - bring food that fits your way of eating

SESSION

5

Moving to Stay Healthy

DM-EX
Moving to Stay Healthy

STATEMENT OF PURPOSE

This session provides information about the role of physical activity in achieving and maintaining blood sugar target goals and provides the opportunity to make a physical activity plan.

PREREQUISITES

None

LEARNING OBJECTIVES

DM-EX1	List two or more benefits of regular physical activity.
DM-EX2	State effects of physical activity on blood sugar.
DM-EX3	Discuss kinds of physical activity.
DM-EX4	Discuss time and frequency of physical activity.
DM-EX5	Discuss simple ways to measure intensity of physical activity.
DM-EX6	Discuss medical clearance issues for physical activity.
DM-EX7	List one or more ways to stay safe during physical activity.
DM-EXGS	State or write a personal plan for physical activity.
DM-EXGNS	Behavior goal not set (follow-up).
DM-EXGM	Behavior goal met (follow-up).
DM-EXGNM	Behavior goal unmet (follow-up).

CONTENT

Physical activity

MATERIALS NEEDED

Visuals Provided

#1 *Taking Care of Yourself by Walking*
#2 *Effort Scale*
#3 *Target Heart Rates*
#4 *Tips for Safe Physical Activity*
#5 *Walking the Rez With a Purpose*
#6 *Changes I Can Make*

Additional

Physical activity logbooks
Step counters
Area *resource list*, including information about local programs and facilities
Videotape of simple exercises
Audiotape of simple exercises

METHOD OF PRESENTATION

Start by introducing yourself. Use a creative icebreaker. (See Introduction on p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with diabetes. Explain that the purpose of this session is to provide information about physical activity and to develop a personal plan for physical activity.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate the discussion. If possible, start the class with a walk, simple stretching, or an easy exercise videotape, using appropriate precautions for patients with diabetes complications or other health problems.

CONTENT OUTLINE

Objective	Content	Educator's Notes
EX1. List two or more benefits of regular physical activity.	Physical activity has many benefits for the person with diabetes and their family.	Ask, "What are benefits of physical activity?" List responses.

Objective	Content	Educator's Notes
EX1. (continued)	These benefits include: • feeling better • increasing energy • coping with stress • lowering blood sugar • lowering blood pressure • lowering blood fats • losing weight • strengthening muscles and bones	Visual #1: *Taking Care of Yourself by Walking*
EX2. State effects of physical activity on blood sugar.	Physical activity can help to keep the blood sugar in the target goal range. It does this by: • decreasing insulin resistance (the body's insulin works better and body cells take in sugar more easily) • using more sugar for energy for the activity	Ask participants to share their observations of what their blood sugar does after physical activity. List responses. Visual #1: *Taking Care of Yourself by Walking* Insulin resistance is covered in Session 1. Check blood sugar before and after physical activity to see the effects on blood sugar levels. People have different blood sugar responses to different kinds of activity. Some people may report a high blood sugar or a low blood sugar after activity. Explore this individually with those participants.
EX3. Discuss kinds of physical activity.	Kinds of physical activity include: • walking • walking the dog • running • dancing • biking • raking leaves • chopping wood • swimming • skiing	Ask, "What are some kinds of physical activity? Which kinds do you enjoy the most?" List responses. Some jobs require a lot of physical activity, such as ranch work, construction, and digging. Visual #1: *Taking Care of Yourself by Walking*

Objective	Content	Educator's Notes
EX3. (continued)	• snowshoeing People are more likely to do physical activity they enjoy.	Ask, "What are some physical activities going on in your community?" List responses. Distribute local *resource list*.
EX4. Discuss time and frequency of physical activity.	The time and frequency of physical activity a person needs to do depends on their health goals for weight loss, blood sugar control, cardiovascular fitness, etc. The amount of time doing the activity is as important as the kind of activity to get benefits from the activity.	Visual #1: *Taking Care of Yourself by Walking* Refer to current Surgeon General Guidelines for Physical Activity (see Supplemental Readings). Physical activity is any non-stop activity that keeps a person moving for more than 30 minutes, 5 or more days a week. Studies have shown that doing non-stop physical activity for 10 minutes 3 times a day, is as effective as doing it for 30 minutes all at one time. Other recommendations from health professionals promote 60 minutes of physical activity a day for cardiovascular health.
	Regular physical activity helps people burn more calories, even at rest.	Participants need to work with their health care provider, and possibly exercise specialists, on time and frequency. Ask, "What has been easy/hard about fitting in physical activity? What helps you fit it into your day?" List responses.
	Plan physical activity for about the same time every day. This will make balancing diabetes medicine and/or snacks easier and more consistent.	Encourage participants to start their physical activity plans slowly. Slowly increase the time and frequency to prevent injury.

Objective	Content	Educator's Notes
EX5. Discuss simple ways to measure intensity of physical activity.	It generally is best to keep physical activity at a moderate intensity. There are several ways to measure intensity. One simple way to measure intensity is the "Talk Test": If a person can talk during physical activity they are working at a healthy intensity; if they are too winded to talk they are working too hard; if they can sing, they are not working hard enough.	Intensity is how hard a person is working during an activity. If physical activity is too slow, people will not get the benefit to their hearts. If it is too fast, it can be hard on the body and not be safe. Other tests to measure intensity include the Perceived Exertion Scale and the Target Heart Rate. • The Perceived Exertion Scale goes from 0 (lying down at rest) to 10 (maximum exertion). A person is working at moderate intensity if they are at a 4 or 5. Check level of perceived exertion on Visual #2: *Effort Scale*. • To find the Target Heart Rate, take the pulse after physical activity. (Count the pulse for 10 seconds and multiply by six.) The target heart rate range for moderate intensity is 55% to 69% of the maximum heart rate. Check target heart rate on Visual #3: *Target Heart Rates*. Target heart rate may not be the best measure of intensity for people whose rate is affected by disease or medicine. See medical clearance issues below. Practice these tests with participants as appropriate. Participants need to work with their health care provider (and possibly exercise specialist) on their activity intensity.
EX6. Discuss medical clearance issues for physical activity.	People with diabetes need to talk to their health care provider before starting or changing physical activity, if they: • are over 35 years old • had diabetes longer than 10 years	Remind participants to check with their health care provider, especially if they already have problems. This can help them choose safe physical activities.

Objective	Content	Educator's Notes
EX6. (continued)	• have diabetes complications, such as nerve damage (neuropathy), eye damage (retinopathy), heart disease, etc. • have shortness of breath or chest pain • have a disability	There are physical activity options for all people with diabetes. For example, chair exercises or water aerobics may be recommended if disability or complications are present.
EX7. List one or more ways to stay safe during physical activity.	There are things a person can do to stay safe during physical activity. They include:	Visual #4: *Tips for Safe Physical Activity* Ask, "What are some ways to stay safe during physical activity?" List responses. Planning ahead, checking blood sugar, and working with the diabetes care team will help achieve balance to keep blood sugar from going too low or too high during physical activity.
	• balance physical activity with meals • balance physical activity with diabetes medicine • check blood sugar before and after physical activity • start new physical activity slowly	A dietitian can help people plan snacks for physical activity.
	• begin each activity session with a 5-10 minute "warm-up," like stretches and walking in place • slow down before the activity is finished and end with a 5-10 minute "cool-down"	Warming up and cooling down helps prevent muscle cramps and injury. Assist participants with practice of "warm-ups" and "cool-downs."
	• wear shoes and socks that fit well • carry diabetes identification • tell someone where they will be exercising and/or the route of the walk	Stress the importance of checking feet before and after physical activity. Participants might also carry coins or cell phones, if appropriate, to call for help in emergencies or have someone go with them.

Objective	Content	Educator's Notes
EX7. (continued)	• avoid extremes of weather (heat or cold) • drink plenty of water before and after physical activity • people at risk for low blood sugar need to carry a sugar food or drink • people with heart and eye disease need to avoid activities that make blood pressure go up • people with nerve damage need to avoid activities that can make them unsteady or fall • stop physical activity and get care right away if any of these happen: - pain or pressure in chest or arm - shortness of breath - nausea or vomiting - irregular heart beat - feeling very tired - feeling lightheaded or faint	Distribute Visual #5: *Walking the Rez With a Purpose* Low blood sugar is covered in Session 9. Examples are heavy lifting, straining, weight lifting, high impact aerobics and racquet sports.
EXGS. State or write a personal plan for physical activity.	Making changes in health habits, such as doing physical activity, is easier when plans are broken down into small, easy-to-do steps. Tips for staying with a physical activity program include: • choosing enjoyable activities • starting slowly and increasing gradually • doing physical activity with a family member or friend • setting aside the same time each day for physical activity	Visual #6: *Changes I Can Make* Ask participants to share successful and unsuccessful activities they have tried. What helped and what did not help?

Objective	Content	Educator's Notes
EXGS. (continued)	• joining a physical activity group or class • planning activities for good and bad weather • writing down the physical activity that was done • rewarding oneself when a physical activity goal is achieved	 Show examples of physical activity logbooks. Show examples of step counters. Participants can use these to monitor progress toward goals. Seeing the steps add up can be rewarding and help people keep doing the activity. Have participants write or state one thing they can do for physical activity. See Session 3: *Making Healthy Changes.*

SKILLS CHECKLIST

Each participant will be able to make a plan for physical activity.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by identifying at least one change to make for physical activity. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes*.

Community Walk

It will soon be time for the mid-summer community powwow and walk/run. You have been following your walking plan pretty well for the past 6 months, usually walking for 20-30 minutes 4 or 5 days a week inside a mall near your home. This year you want to do the 6-mile outdoor course at the upcoming walk/run. You have never walked this far before, but you feel like you can do it. One of your friends, who also has diabetes, has been doing the 6-mile course for the past few years. He is encouraging you to do it.

1. **Do you think you need to check with your health care provider before you do this walk? Why or why not?**

_____
_____
_____
_____
_____

2. **What intensity of physical activity do you plan to do for the community walk? How will you measure your intensity level during the walk?**

_____
_____
_____
_____
_____

3. **What would you do to walk safely during the community walk?**

_____
_____
_____
_____
_____

Community Walk

It will soon be time for the mid-summer community powwow and walk/run. You have been following your walking plan pretty well for the past 6 months, usually walking for 20-30 minutes 4 or 5 days a week inside a mall near your home. This year you want to do the 6-mile outdoor course at the upcoming walk/run. You have never walked this far before, but you feel like you can do it. One of your friends, who also has diabetes, has been doing the 6-mile course for the past few years. He is encouraging you to do it.

1. **Do you think you need to check with your health care provider before you do this walk? Why or why not?**

   People with diabetes need to talk to their health care provider before starting or changing physical activity, if they are over 35 years old, had diabetes longer than 10 years, have diabetes complications—such as nerve damage, eye damage, heart disease, etc., have shortness of breath or chest pain and/or have a disability.

2. **What intensity of physical activity do you plan to do for the community walk? How will you measure your intensity level during the walk?**

   The level of intensity a person is trying to achieve depends on their health goals. Generally, it is best to keep physical activity at a moderate level. If it is too slow, you will not get the benefit to your heart. If it is too fast, it may be hard on the body and not safe for some people. There are several ways to measure the intensity of physical activity, including the Talk Test, the Perceived Exertion Scale and Target Heart Rate.

3. **What would you do to walk safely during the community walk?**

   There are many things people can do to stay safe during physical activity, including balancing physical activity with meals and medicine, carrying sugar, checking blood sugar before and after activity, starting the activity slowly, warming up before and cooling down after, wearing socks and shoes that fit well, carrying diabetes identification, avoiding extremes of weather (heat and cold) and drinking plenty of water before and after activity (and during activity during hot weather). Plan ahead to increase your walking distance slowly over time. Practice with your friend before the walk/run. You can start the walk/run at the back of the group so you will not feel like you have to go fast. To stay safe, people also need to stop activity and get help right away if they have pain or pressure in their chest or arm, shortness of breath, nausea or vomiting, irregular heart beat, fatigue, light-headedness or faintness.

SESSION

6

Diabetes Medicine

DM-M
Diabetes Medicine—Overview and Diabetes Medicines
DM-IN
Diabetes Medicine—Insulin

STATEMENT OF PURPOSE

This session provides an introduction to the use of diabetes medicine in the diabetes treatment plan, including their purpose, action, use and side effects.

PREREQUISITES

It is recommended that participants have basic knowledge about the pathophysiology of diabetes. Instructors need to assess participant treatment plans and present material appropriate for those medicines they are currently taking. Only those participants currently taking insulin, or about to start insulin therapy, should complete the insulin section.

LEARNING OBJECTIVES

Section 1: Overview

DM-M1	Discuss the role of diabetes medicines in the overall diabetes treatment plan.
DM-M2	State 2 or more reasons for adding or changing diabetes medicines.
DM-M3	State the importance of checking blood sugar more often when medicines are changed.
DM-M4	State the importance of taking medicines as prescribed.
DM-M5	State 2 or more guidelines for when to contact a health care provider about medicine.

DM-M6	Discuss the role of alternative treatments for diabetes and how they affect blood sugar (including herbal, traditional healing methods, and over-the-counter medicines).
DM-MGS	State or write a personal plan for taking diabetes medicine.
DM-MGNS	Behavior goal not set (follow-up).
DM-MGM	Behavior goal met (follow-up).
DM-MGNM	Behavior goal unmet (follow-up).

Section 2: Diabetes Medicines

DM-M7	State the names of their diabetes medicines, how much to take, when to take them, how they work and possible side effects.
DM-MGS	State or write a personal plan for taking diabetes medicine.
DM-MGNS	Behavior goal not set (follow-up).
DM-MGM	Behavior goal met (follow-up).
DM-MGNM	Behavior goal unmet (follow-up).

Section 3: Insulin

DM-IN1	Discuss how insulin works to control blood sugar in people with type 2 diabetes.
DM-IN2	Describe the types of insulin they use, names of the insulin, how they work, how much to take and when to take them.
DM-IN3	Identify insulin injection sites.
DM-IN4	Demonstrate proper technique for withdrawing and injecting insulin.
DM-IN5	Discuss the proper storage of insulin.
DM-IN6	Discuss the proper disposal of insulin syringes and other sharps.
DM-IN7	Discuss the major side effect of taking insulin.
DM-INGS	State or write a personal plan for using insulin.
DM-INGNS	Behavior goal not set (follow-up).
DM-INGM	Behavior goal met (follow-up).
DM-INGNM	Behavior goal unmet (follow-up).

CONTENT

Medicine

MATERIALS NEEDED

Section 1: Overview

Visuals Provided

#1 *Actions of Diabetes Medicines in the Body*

Section 2: Diabetes Medicines

Visuals Provided

#1 *Actions of Diabetes Medicines in the Body*
#2 *Diabetes Medicines*
#3 *Medicine Sheet*

#4 *Two Men, Two Stories of Diabetes and Strength*
#5 *Wallet Card Template*
#6 *Changes I Can Make*

Additional

Body apron
Samples of different diabetes medicines, such as:
- bubble packs pasted on board
- individual pills taped on paper/board
- photographs of medicines

Sample medicine containers, such as:
- actual medicine bottles
- photographs of medicine bottles
- sample injection devices
- prescription labels

Samples of medicine organizers
Diabetes identification information
Wallet card to list medicines

Section 3: Insulin

Visuals Provided

#3 *Medicine Sheet*
#6 *Changes I Can Make*
#7 *Pancreas*
#8 *Basal and Bolus Insulin*
#9 *Comparison of Insulins*
#10 *Insulin Action Times*
#11 *Injection Sites*
#12 *Giving an Insulin Injection*
#13 *Diabetes and Insulin*

Additional

Samples of bottles/boxes for all types of insulin (actual or photographs)
Alcohol swabs
Samples of syringes
Samples of injection devices
Samples of insulin carrying packs
Samples of sharps disposal containers
Diabetes identification information
Insulin start kit
Local sharps disposal information

METHOD OF PRESENTATION

Start by introducing yourself. Use a creative ice breaker. (See Introduction p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with diabetes. Explain that the purpose of this session is to provide information about diabetes medicines and how they work.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate the discussion. A videotape may also be shown to introduce content if available.

The overview learning objectives are appropriate for all participants, regardless of current diabetes medicine use. Present other content as appropriate based on the educational needs assessment, including current diabetes medicine used. Actual insulin injection technique needs to be taught individually.

CONTENT OUTLINE

Section 1: Overview

Objective	Content	Educator's Notes
Introduction	In type 2 diabetes, the pancreas makes insulin, but these things may happen: • the insulin does not work well (body cells may not allow insulin to do its work; this is insulin resistance) • the pancreas may not make enough insulin • some people may not make enough insulin and their insulin does not work well These changes lead to high blood sugar.	Basic pathophysiology is covered in Session 1.
M1. Discuss the role of diabetes medicines in the overall diabetes treatment plan.	Diabetes medicines help lower blood sugar.	Visual #1: *Actions of Diabetes Medicines in the Body* Diabetes medicines do not take the place of making healthy food choices and staying active. People may be able to take less medicine if they change some food choices and are more active.

Objective	Content	Educator's Notes
M1. (continued)	Diabetes medicines cannot work alone. They work best when a person:	
	• makes healthy food choices	Eating healthy includes eating smaller portions, more fruits and vegetables, less high fat foods and less sugar foods and drinks.
	• is physically active	Walking for 30 minutes or more 5 or more days a week is a way to be more active.
	• stays at a healthy weight	Eating healthy and being more active will help people with their weight. People who lose 5-10 pounds or 5-10% of body weight, can sometimes lower the amount of medicines they take. Others can sometimes stop taking medicine after weight loss.
	There are different types of diabetes medicines. Health care providers choose which type to use based on a person's:	Ask, "What diabetes medicine are you taking? How long have you been taking it? Have you ever been on any other medicine for diabetes?" List responses.
	• age	Some diabetes medicines cannot be used, need to be used with caution and/or need dosages adjusted for children or elderly people.
	• weight	Some diabetes medicines also decrease appetite and can help with weight loss.
	• how long they had diabetes	More medicines may be needed the longer someone has diabetes.
	• blood fat numbers	Some diabetes medicines also lower blood fats.
	• liver, kidney and heart test results	Some medicines cannot be used, or need to be used with caution, for

Objective	Content	Educator's Notes
M1. (continued)	• diabetes medicines used in the past	people with liver, kidney or heart problems.
	• current blood sugar and target goal	Types and dosages vary depending on how much blood sugar needs to be lowered to reach target goal.
	• other medicines taken	Emphasize the need to tell the health care provider about herbal medicine and alcohol use.
	• how well a person can participate in their diabetes care	
M2. State 2 or more reasons for adding or changing diabetes medicines.	Some reasons for adding or changing diabetes medicines are:	Ask, "Has anyone had their medicine changed recently? Why?" List responses.
	• blood sugar is not at target goal	There may be more than one reason for the high blood sugar.
	• there is a change in eating, activity, weight or stress	In type 2 diabetes, healthy eating, physical activity and losing weight may be enough to lower blood sugar when a person first finds out they have diabetes.
	• the body is making less insulin	Over time, body changes may lead to less insulin being made or more insulin resistance.
	• insulin resistance worsens	Review pathophysiology of diabetes related to insulin resistance and insulin secretion as appropriate.
	• other medicines are making blood sugar too high or too low • new health problems or illness	
	• there are side effects from medicines	Ask, "Has anyone had problems with their diabetes medicine? If so, what?" List responses.
	Taking more than one diabetes medicine is called combination	Ask, "Is anyone taking more than one diabetes medicine?" List responses.

Objective	Content	Educator's Notes
M2. (continued)	therapy. Combination therapy includes: • more than one kind of diabetes medicine • diabetes medicine(s) and insulin	Some people need to take 2 kinds of insulin to reach their target goals.
M3. State the importance of checking blood sugar more often when medicines are changed.	It is important to check blood sugar more often when changing diabetes medicines. Home blood sugar records can show: • if a person is reaching target blood sugar goals • times blood sugar is too high or too low Diabetes medicine is adjusted or changed until the target blood sugar goal is reached.	Review target blood sugar goals. Review role of food choices and physical activity in achieving target goals. Remind participants that medicines take some time to work. Review home blood sugar and A1c monitoring options.
M4. State the importance of taking medicines as prescribed.	People need to take their medicines at the time they and their health care provider decide is best for them. Taking medicine at the right time helps: • the medicine work best to help blood sugar reach and stay at target goals • reduce the chances of side effects from the medicine How much and how often medicines need to be taken depends on: • how long they work in the body • how well the body uses them	Talk to the health care provider if the time(s) a person is supposed to take medicine is not fitting into their schedule. It is important not to take medicines only when a person thinks their blood sugar is high. For example, low blood sugar is less likely to happen if medicines are taken as prescribed. Almost all medicines stay in the body between 6 and 24 hours. Exceptions are: • Chlorpropamide (Diabinese) stays in the body for 48 hours

Objective	Content	Educator's Notes
M4. (continued)	Medicine works best if taken about the same time every day.	• Repaglinide (Prandin) and Nateglinide (Starlix) stay in the body for 2 hours Some diabetes medicines need to be taken at meal time.
	These are things a person can do to remember to take medicine: • take them about the same time each day	Ask, "What helps you remember to take your medicine?" List responses. Talk to a health care provider about what to do if a person forgets their diabetes medicine.
	• take them with other medicine or when doing a routine activity, such as brushing teeth, watching the news, going to bed, etc. • keep medicine in plain sight or close to where it will be used	Putting a new behavior together with something a person is already doing increases the chances they will do the new behavior.
	• think about times that are hard to remember and give self-reminders	For example, if it is hard to remember a medicine at lunchtime, put a note in the lunch box or set an alarm. For diabetes pills, try filling a pill organizer with pills for the day or week. Show sample.
	There are other things to do to take medications safely: • do not take anyone else's medicine	Do not give a person someone else's medicine. (Be sure to keep medicine out of reach of children.)
	• learn the name of the medicine taken, including how much and how often	Visual #5: *Wallet Card* Each person can keep a list of their medicines. Suggest participants bring medicine to health care provider visits, including over-the-counter medicine, herbal medicine and supplements.
	• read the label when getting medicine from the pharmacy	Show these points on samples of medicine. Check with the pharmacist

Objective	Content	Educator's Notes
M4. (continued)	Check the name, dose and times it is taken	if the name is correct but the medicine is a different size, shape or color.
	• do not use medicines that have expired	Point out the expiration date on sample medicine bottles.
	• do not use medicines that have changed colors	Discuss local policies for discarding old or unusable medicines. Some medicines may change color if they are exposed to heat, light, or humidity. It is important to keep medicines in a tightly closed container.
	• learn how to get more medicine when needed	Provide local guidelines for medicine refill.
	• use the same pharmacies and health care providers whenever possible for your medicine	This will help a person avoid harmful drug interactions.
M5. State 2 or more guidelines for when to contact a health care provider about medicine.	People taking diabetes medicines need to contact their health care provider if:	
	• blood sugar is too high or too low	Talk to a health care provider about guidelines for reporting high and low blood sugar and side effects.
	• they are having side effects from the medicine	Side effects may include an unpleasant taste in the mouth, diarrhea, nausea, vomiting, loss of appetite, abdominal discomfort, skin rash or itching, dizziness, flushing or low blood sugar. Refer to side effects information for diabetes medicines and insulin below.
	• they are ill	Sick Day Guidelines are covered in Session 9.
	• medicines are old or change color	See Objective M4.
	• they need help with medicines during travel	Always keep medicines with people when they travel. Do not keep them in a

Objective	Content	Educator's Notes
M5. (continued)		suitcase. Take enough for the trip plus extra. A prescription and/or doctor's letter is helpful and sometimes required.
	• they plan to take any new medicine, including over-the-counter and herbal medicines	
	• they are planning a sweat, fast or other ceremony that may affect their eating, sleeping or activity pattern	Visual #4: *Two Men, Two Stories of Diabetes and Strength*
	• they are not taking their medicine	Encourage participants to tell their health care provider why they are not taking their medicine.
	• they become pregnant	Women who are pregnant, breastfeeding or planning to become pregnant should not take some diabetes medicines. They may be harmful to the baby. Women can talk to a health care provider about their diabetes medicine.
M6. Discuss the role of alternative treatments for diabetes and how they affect blood sugar (including herbal, traditional healing methods and over-the-counter medicines).	Herbal products and "natural" remedies may cause blood sugar to go too high or too low and/or work with other medicines a person takes in a harmful way.	Talk to a health care provider and/or pharmacist about the use of these products.
	Some over-the-counter cold medicines may cause high or low blood sugar, especially in people who use insulin.	Many products, including liquid medicines, contain sugar and/or alcohol. Show samples and point out ingredients on label. Alcohol can block the action of diabetes medicine and/or work in the body for a long time to lower blood sugar. There are many sugar and alcohol-free products now available. Show samples. These products may cost more, but if used in small amounts this is probably not a concern.

Objective	Content	Educator's Notes
M6. (continued)	Many other over-the-counter medicines can cause problems with blood sugar levels. There are traditional ways to treat diabetes. It is important to discuss traditional methods used with the health care provider so they can be used together with "western" treatments in the most helpful way.	Remind participants to check blood sugar often when they need to take over-the-counter medications. It is generally okay to use medicines for 3 days, but they need to contact a health care provider for advice if they are not better in 3 days or if blood sugar is high or low. You may want to work with a facility pharmacist to make a visual of locally available over-the-counter medicines. If you are not sure about local traditions, ask if some content needs to be discussed. Some traditional methods are safe if "western" treatments are continued.
MGS. State or write a personal plan for taking diabetes medicine.	Making changes in health habits, such as taking medicines, is easier when plans are broken down into small, easy-to-do steps.	Visual #6: *Changes I Can Make* Assist participants to make a personal plan for taking diabetes medicine. See Session 3: *Making Healthy Changes*

Section 2: Diabetes Medicines

Objective	Content	Educator's Notes
M7. State the names of their diabetes medicines, how much to take, when to take, how they work and possible side effects.	Overview: Diabetes medicines are taken to lower blood sugar. Some diabetes medicines are pills taken by mouth and others are injected (including insulin).	Assist participants to meet learning objective verbally and/or by completing Visual #4: *Medicine Sheet.* Visual #2: *Diabetes Medicines* and Visual #1: *Action of Diabetes Medicines in the Body* show samples of different medicines.

Objective	Content	Educator's Notes
M7. (continued)	There are different types of diabetes medicines. Each type lowers blood sugar in a different way. The types of diabetes medicines are: • sulfonylureas • meglitinides • biguanides • alpha-glucosidase inhibitors • thiazilidinidiones (glitazones) • incretin mimetic • DPP-4 inhibitor • amylin analog	You can use the *body apron* throughout this section to show where diabetes medicines act in the body. Assist participants with pronunciations: "SUL-fah-nil-YOO-ree-ahz" "meh-GLIT-in-idz" "by-GWAN-idz" "Al-fa-gloo-KOS-ih-days in-HIB-it-erz" "THIGH-ah-ZO-li-deen-DYE-ownz" or "GLIT-ah-ZOWNZ" "IN-creet-in MIM-e-tik" "D-P-P for in-HIB-it-er" "AM-a-lyn AN-a-log"
	<u>Sulfonylureas</u>:	Ask, "Is anyone taking one of the sulfonylureas?" (Say the names of the different sulfonylureas.)
	Sulfonylureas help the pancreas make more insulin.	
	Sulfonylureas can be used alone or with other medicines. Remember that continuing healthy food choices and being active will help all diabetes medicines work better.	Visual #1: *Actions of Diabetes Medicines in the Body* and/or show samples of different medicines.
	It may take 2 or more days before sulfonylureas begin to show changes in the blood sugar.	Discuss the action of sulfonylureas in the body and how they help. Review pathophysiology of diabetes related to insulin secretion and insulin resistance as appropriate.
	There are many different sulfonylureas. They are not exactly the same and cannot be used in place of each other.	Visual #2: *Diabetes Medicines* You may want to discuss the sulfonylureas available in your pharmacy. Say each name so participants hear how it is pronounced (use brand name and generic name).
	Sulfonylureas have some side effects. They include: • low blood sugar • weight gain • rash	Review recognition, prevention and treatment of low blood sugar. These pills need to be used with caution in some elderly people and people with liver damage.

Objective	Content	Educator's Notes
M7. (continued)	Meglitinides:	Ask, "Is anyone taking repaglinide (Prandin) or nateglinide (Starlix)?"
	Meglitinides help the pancreas to release insulin after a meal.	Visual #1: *Action of Diabetes Medicines in the Body* and/or show samples of different medicines.
	They work faster than sulfonylureas and do not last as long. They help lower your blood sugar after you eat a meal or snack.	Discuss the action of meglitinides in the body and how they help. Review pathopysiology of diabetes related to insulin secretion and insulin resistance as appropriate. Taking these medications without eating can cause your blood sugar to go too low.
	Repaglinide (Prandin) and nateglinide (Starlix) are the 2 meglitinides available.	Visual #2: *Diabetes Medicines* Say each name so participants hear how it is pronounced (use the brand name and generic name).
	They can be used alone or combined with other diabetes medicines.	Remind participants that continuing healthy food choices and being active will help all diabetes medicines work better.
	They should only be taken when eating. To work best, they need to be taken 15 minutes before each meal or snack. These pills keep working for 1-2 hours.	They work to lower high blood sugar after meals. Do not take them if a meal is missed or skipped.
	Meglitinides have some side effects. They include low blood sugar and interactions with other medicines.	Review recognition, prevention and treatment of low blood sugar. These pills should not be taken with alpha-glucosidase inhibitors. They need to be used with caution by elderly people and people with liver damage.

Objective	Content	Educator's Notes
M7. (continued)	Biguanides: Biguanides help to: • keep the liver from releasing sugar into the blood • reduce insulin resistance by making body cells more sensitive to insulin	Ask, "Is anyone taking metformin (Glucophage)?" Visual #2: *Diabetes Medicines* and Visual #1: *Action of Diabetes Medicines in the Body* and/or show samples of different medicines. Discuss the action of biguanides in the body and how they help. Review pathophysiology of diabetes related to insulin secretion and insulin resistance as appropriate. Metformin may also lower cholesterol (blood fats).
	Metformin (Glucophage) is the name of the biguanide available.	Visual #2: *Diabetes Medicines* Say the name so participants hear how it is pronounced (use the brand name and generic name).
	Metformin can be used alone or combined with other medicines.	Metformin can be added to other medications. Sometimes adding metformin can help the other medications work better. Remind participants that continuing healthy food choices and being active will help all diabetes medicines work better.
	Metformin has side effects. They include: • nausea • diarrhea	Metformin does not cause weight gain as sulfonylureas do. Gastrointestinal side effects may be decreased by: • starting the medicine at a low dose • increasing the amount slowly • taking pills with meals The gastrointestinal side effects usually go away after a couple weeks. Tell a health care provider if they do not go away.

Objective	Content	Educator's Notes
M7. (continued)	• unpleasant metallic taste in mouth • possible interactions with other medicines • chance for lactic acidosis	
	Binge drinking or drinking too much alcohol can make people sick when they are taking metformin. People with liver or kidney damage or heart failure should not take metformin.	Lactic acidosis is a buildup of lactic acid in the blood. It is rare but can be very serious. Lactic acidosis is more likely to happen when people drink alcohol or have liver or kidney disease. People who are having surgery or medical tests with contrast dyes will need to stop their metformin. Discuss these situations with a health care provider.
	<u>Alpha-glucosidase inhibitors</u>:	Ask, "Is anyone taking acarbose (Precose) or miglitol (Glyset)?"
	This type of diabetes pill slows down the amount of carbohydrates absorbed in the intestine. This slows the blood sugar rise after eating.	Visual #1: *Action of Diabetes Medicines in the Body* and/or show samples of different medicines. Discuss the action of alpha-glucosidase inhibitors in the body and how they help. Review pathophysiology of diabetes related to insulin secretion and insulin resistance as appropriate.
	Acarbose (Precose) and miglitol (Glyset) are the names of the alpha-glucosidase inhibitors available.	Visual #2: *Diabetes Medicines* Say each name so participants hear how it is pronounced (use the brand name and generic name).
	They can be used alone or combined with some other diabetes medicines.	Remind participants that continuing healthy food choices and being active will help all diabetes medicines work better.
	They need to be taken with the first bite of food at a meal. They start working right away.	This diabetes pill only affects the after-meal blood sugar. Do not take these pills if a meal is missed or skipped.

Objective	Content	Educator's Notes
M7. (continued)	Alpha-glucosidase inhibitors have side effects. They include: • bloating • gas • diarrhea	Side effects may be decreased by increasing the dose slowly. The side effects usually stop after 6 months. Low blood sugar is not a risk if used alone. If taking acarbose or miglitol with a sulfonylurea, low blood sugar can happen. This low blood sugar should not be treated with products that contain sucrose (such as hard candy or juice). Use milk or glucose tablets instead. Stress the need for participants to make a plan for treating low blood sugar when taking an alpha-glucosidase inhibitor.
	Thiazolidinidiones (glitazones):	Ask, "Is anyone taking a glitazone?"
	Glitazones help lower blood sugar by making body cells more sensitive to insulin (decreasing insulin resistance).	Visual #1: *Actions of Diabetes Medicines in the Body* and/or show samples of different medicines. Discuss the action of glitazones in the body and how it helps. Review pathophysiology of diabetes related to insulin secretion and insulin resistance as appropriate. These pills may lower blood fats.
	Rosiglitazone (Avandia) and pioglitazone (Actos) are the names of the glitazones available.	Visual #2: *Diabetes Medicines* Say each name so participants hear how it is pronounced (use the brand name and generic name).
	Glitazones can be used alone or combined with other diabetes medicines.	Remind participants that continuing healthy food choices and being active will help all diabetes medicines work better.
	These medicines can take 2-6 weeks to start working to lower blood sugar.	Stress the importance of checking blood sugar often.
	Glitazones have side effects. They include: • weight gain	Weight gain, leg swelling or shortness of breath need to be reported to the health care provider right away. These pills

Objective	Content	Educator's Notes
M7. (continued)	• leg swelling • shortness of breath	have been associated with making congestive heart failure worse.
	• liver problems	Report any signs of liver problems such as jaundice (yellowing of skin and eyes), nausea and vomiting, stomach pain and/or dark urine to a health care provider right away.
	People taking glitazones need a blood test for liver function before starting these medicines and then every other month for the first year.	Stress the importance of these blood tests for the participants' safety.
	<u>Incretin Mimetic:</u>	Ask, "Is anyone taking Exenatide (Byetta)?
	An incretin mimetic helps lower blood sugar by: • helping the body make more insulin after eating • lowering the amount of glucose made in the body • making a person feel full after eating by slowing the emptying of the stomach	Visual #1: *Actions of Diabetes Medicines in the Body* and/or show samples of different medicines. Discuss the action of incretin mimetic in the body and how it helps. Review pathophysiology of diabetes related to insulin secretion and insulin resistance as appropriate.
	Exenatide (Byetta) is the name of the incretin mimetic that is available.	Visual #2: *Diabetes Medicines* Say each name so participants hear how it is pronounced (use the brand name and generic name).
	Exenatide is an injection that is given by using a pen device.	This is a diabetes medicine that is not insulin, but is given by injection. Provide information on non-insulin injectable diabetes medicines, as appropriate to the participants' learning needs and local facility policies and recommendations. Instruct patients to make sure that they also get a prescription for the pen needles when seeing their provider.

Objective	Content	Educator's Notes
M7. (continued)		Remind participants that continuing healthy food choices and being active will help all diabetes medicines work better.
	Exenatide can be used with metformin, a sulfonylurea, a thiazolidinedione or a combination of oral medications.	Because of the slowing effect on stomach emptying, the timing or some medicines will need to be adjusted.
	Exenatide has some side effects. They include: • nausea • vomiting • diarrhea • reduced appetite • low blood sugar	The gastrointestinal side effects usually go away after a couple weeks. Tell a health care provider if they do not go away. Review recognition, prevention, and treatment of low blood sugar. Low blood sugar can result if exenatide is used in combination with a sulfonylurea.
	Exenatide may cause weight loss.	Some people may lose up to 8 or 10 pounds while taking Exenatide.
	People with severe kidney damage or women who are pregnant should not take Exenatide.	
	Keep Exenatide in the refrigerator when not opened. Once opened, it may be kept at room temperature.	Inform patients that Exenatide and other medications should not be stored in direct sunlight and that Exenatide must be discarded after 30 days, even if the pen is not empty.
	<u>DPP-4 Inhibitor:</u>	Ask, "Is anyone taking Sitagliptin (Januvia)?
	A DPP-4 inhibitor helps lower blood sugar by: • helping the body make more insulin after eating • lowering the amount of glucose made in the body • making a person feel full after eating by slowing the emptying of the stomach	Visual #1: *Actions of Diabetes Medicines in the Body* and/or show samples of different medicines. Discuss the action of DPP-4 in the body and how it helps. Review pathophysiology of diabetes related to insulin secretion and insulin resistance as appropriate.

Objective	Content	Educator's Notes
M7. (continued)	Sitagliptin (Januvia) is the name of the DPP-4 inhibitor that is available.	Visual #2: *Diabetes Medicines* Say each name so participants hear how it is pronounced (use the brand name and generic name).
	Sitagliptin is a pill taken by mouth.	Remind participants that continuing healthy food choices and being active will help all diabetes medicines work better.
	Sitagliptin can be used with metformin, a sulfonylurea, a thiazolidinedione or a combination of oral medications.	Because of the slowing effect on stomach emptying, the timing or some medicines will need to be adjusted.
	Sitagliptin has some side effects. They include: • allergic reactions, like rash and hives	Be sure to talk to your doctor if you get a rash.
	• low blood sugar	Review recognition, prevention, and treatment of low blood sugar. Low blood sugar can result if exenatide is used in combination with a sulfonylurea.
	• upper respiratory infection • stuffy or runny nose or sore throat	
	• diarrhea	The gastrointestinal side effects usually go away after a couple weeks. Tell a health care provider if they do not go away.
	People with kidney damage may need to take less Sitagliptin.	
		There is no or minimal weight change with Sitagliptin.
	<u>Amylin Analog:</u>	Pramlintide (Symlin) is the name of the amylin analog that is available.
	Amylin analog may make a person feel full faster when eating a meal. Amylin analog only works in people who have diabetes.	Discuss the action of amylin analog in the body and how it helps. Review pathophysiology of diabetes related to insulin secretion and insulin resistance as appropriate.

Objective	Content	Educator's Notes
M7. (continued)	Pramlintide (Symlin) is the name of an amylin analog.	Visual #2: *Diabetes Medicines* Say each name so participants hear how it is pronounced (use the brand name and generic name).
	Amylin analog should only be taken if you are also using insulin.	Remind participants that continuing healthy food choices and being active will help all diabetes medicines work better.
	Nausea is the most common side effect of Pramlintide, and it may cause weight loss. Keep Pramlintide in the refrigerator when not opened. Once opened, it may be kept at room temperature.	This medication must be used carefully in people who have problems with their stomachs. Talk to your provider about any stomach problems you may have.
	Pramlintide is an injection that is given by using a pen device.	This is a diabetes medicine that is not insulin, but is given by injection. Provide information on non-insulin injectable diabetes medicines, as appropriate to the participants' learning needs and local facility policies and recommendations. Instruct patients to make sure that they also get a prescription for the pen needles when seeing their provider. While always used with insulin, Pramlintide cannot be mixed with insulin and must be given as a separate injection. Because of the slowing effect on stomach emptying, the timing or some medicines will need to be adjusted. **Note: Educators need to find out what medicines are available in their local facility and gather more information on those medicines. Information on**

Objective	Content	Educator's Notes
M7. (continued)		**medicines and their use may change frequently, so it is important for the educator to continually update his/her knowledge.**
MGS. State or write a personal plan for taking diabetes medicine.	Making changes in health habits, such as taking diabetes medicines, is easier when plans are broken down into small, easy-to-do steps.	Visual #6: *Changes I Can Make* Have each participant state or write one thing they will do to take their diabetes medicines. See Session 3: *Making Healthy Changes*

Section 3: Insulin

Objective	Content	Instructor's Notes
IN1. Discuss how insulin works to control blood sugar in people with type 2 diabetes.	Insulin is a hormone that is made in the pancreas.	Visual #7: *Pancreas*
	Insulin lowers blood sugar by allowing sugar to enter body cells.	Visual #13: *Diabetes and Insulin*
	In people without diabetes, the body makes a steady amount of insulin throughout the day.	Visual #8: *Basal and Bolus Insulin* This is basal insulin.
	As soon as a person eats, the pancreas supplies the body with a burst of insulin to take care of the sugar from the food.	This is bolus insulin.
	Most people with type 2 diabetes still make some insulin. They may not make enough insulin if they have had diabetes for a long time. Extra insulin may be needed to move insulin into the blood cells.	People with type 2 diabetes may take different kinds and amounts of insulin to reach blood sugar goals.
	Taking insulin is one way for people with type 2 diabetes to get enough insulin to keep their blood sugar in target range.	Insulin cannot be given as a pill because it is destroyed in the stomach.

Objective	Content	Educator's Notes
IN2. Describe the types of insulin they use, the insulin's name, how they work, how much to take and when to take them.	The different types of insulin are: • very fast acting • fast acting • long acting • very long acting • steady, very long acting Each kind of insulin has a different onset, peak, and length of action. The different kinds of insulin copy how basal and bolus insulin works in people without diabetes	Assist participants to meet learning objective verbally and/or by completing Visual #4: *Medicine Sheet.* Visual #13: *Diabetes and Insulin* Ask, "What kind of insulin do you take?" List responses. Onset is when it starts working, peak is when it is working most to lower blood sugar and length of action is how long it keeps working. Visual #10: *Insulin Action Times*
	Very fast acting insulin: • acts like bolus insulin • lowers blood sugar right after a meal • begins to work 5-15 minutes after it is given • lowers blood sugar most ½-1 hour after it is given • keeps working 3-4 hours Lispro (Humalog), Aspart (Novalog) and Glulisine (Apidra) are the names of the very fast acting insulins available. Very fast acting insulin is given just before eating a meal.	Visual #9: *Comparison of Insulins* Very fast acting insulin works well for people who do not eat at regular times. Say each name so participants hear how it is pronounced. It is important to check blood sugar before a person eats to know how much Lispro, Aspart, or Glulisine to take.

Objective	Content	Educator's Notes
IN2. (continued)	Fast acting insulin: • acts like bolus insulin, but it is not as quick as very fast acting insulin • lowers blood sugar after a meal • begins to work 30 minutes after it is given • lowers blood sugar most 2-4 hours after it is given • keeps working for 6-8 hours	Visual #9: *Comparison of Insulins*
	Regular (Humulin R, Novolin R, Velosulin Human) is the name of fast acting insulins available. Fast acting insulin is given 30 minutes before eating a meal.	Say each name so participants hear how it is pronounced.
	Long acting insulin: • acts like basal insulin • gives a slow dose of insulin throughout the day • begins to work 2-4 hours after it is given • lowers blood sugar most 6-10 hours after it is given • keeps working for 10-18 hours	Visual #9: *Comparison of Insulins*
	NPH (Humulin, Novulin) and Lente (Humulin, Novulin) are the names of long acting insulins available. People with type 2 diabetes may take the long acting insulin in the morning and evening and/or before bedtime.	Say each name so participants hear how it is pronounced. Lente is not used very often in people with type 2 diabetes.
	It is important to time meals and snacks to prevent low blood sugar reactions.	Review prevention, recognition and treatment of low blood sugar.

Objective	Content	Educator's Notes
IN2. (continued)	Very long acting insulin: • acts like basal insulin • gives a slow dose of insulin for a long time • begins to work 4-6 hours after it is given • works the most to lower blood sugar 8-14 hours after it is taken • keeps working for 18-24 hours	Visual #9: *Comparison of Insulins*
	Ultralente is the name of the very long acting insulin available.	Say the name so participants hear how it is pronounced. Ultralente is not used very often in people with type 2 diabetes.
	It is important to time meals and snacks to prevent low blood sugar reactions.	Review prevention, recognition and treatment of low blood sugar.
	Steady, very long acting insulin: • acts like basal insulin • has no peak action and decreases the risk of having low blood sugar • provides a steady dose of insulin over a 24-hour period	Visual #9: *Comparison of Insulins*
	Glargine (Lantus) and Detemir (Levemir) are the names of the steady, very long acting insulins available. Glargine and Determir need to be taken once a day at the same time each day. Glargine and Determir cannot be mixed with other insulins.	Say the name so participants hear how it is pronounced.

Objective	Content	Educator's Notes
IN3. Identify insulin injection sites.	The abdomen is the best area for insulin injections. Insulin is absorbed faster in this area.	Visual #11: *Injection Sites*
	The arms, thighs or hips can be used. These areas are used because they have fewer nerves and a pad of fat under the skin. Do not inject insulin into body areas where there is not enough fat. The nerve endings and blood vessels are closer to the surface.	People who are very active during the day, should use these sites at bedtime.
	Change injection sites within an area each time. This will keep the site from getting thick from many needle sticks in the same place. Insulin will not work well if it is injected into thick skin.	Insulin is not absorbed well when injected into thick skin, including scars.
IN4. Demonstrate proper technique for withdrawing and injecting insulin.	It is common to feel afraid to give an insulin injection. People feel less afraid after some time.	Ask participants to share their concerns and feelings about taking insulin.
	Plan for a few extra minutes when you first begin taking insulin shots.	Putting off an injection does not make it any easier. Set a time and stick to it. Notes, watch alarms and other ways can help people remember when it is time to take their insulin.
	Here is how to withdraw and inject insulin:	Visual #12: *Giving an Insulin Injection*
	Withdrawing insulin: • gather all equipment • wash hands • roll bottle between hands or shake gently to mix NPH, Lente or Ultralente insulins • wipe the top of the bottle with alcohol before putting in the needle • remove needle cap	Keep all the supplies together. Put insulin, syringes and alcohol wipes in the place where injections will be given.

Objective	Content	Educator's Notes
IN4. (continued)	• hold syringe at eye level, with the needle pointing toward the ceiling • draw air into syringe (pull plunger back to cross the dosage mark on the syringe) • inject air through the rubber stopper into the bottle	Discuss syringe size needed/available. Point out dosage markings on insulin syringes used locally. Have participants demonstrate withdrawing and injecting insulin (or saline). Instructor may demonstrate first or may guide/support participant through procedure without demonstrating first.
	• leave the needle in the bottle and turn it upside-down so the needle is pointing upward into the insulin • pull back slowly on the plunger to withdraw the insulin • push insulin back into bottle (to clear air bubbles) • pull back plunger and fill syringe with desired number of units of insulin • look for air bubbles; if bubbles, flush again • when there are no bubbles and the dosage is correct, pull the bottle straight up and off the needle	Participant demonstrates mixing insulins if appropriate.
	Injecting insulin: • pick a spot for the injection • clean the skin and let dry • remove top from needle and hold the syringe in one hand, like a pencil • with the other hand, pinch up a couple inches of skin • stick the needle straight into the pinched skin, push the needle all the way in • relax your pinch and push the plunger all the way down, pull the needle straight out	Devices are available to help inject insulin, including: • spring loaded syringes • cartridge pen injectors • jet-injectors Discuss if these are available to participants. Have samples available for demonstration. The angle used depends on the body build and the amount of subcutaneous tissue. Sometimes blood will appear in the syringe after the needle is pushed into

Objective	Content	Educator's Notes
IN4. (continued)	• press down on site, do not rub Needles and syringes come in different sizes.	skin. If this happens, remove the needle, then discard and prepare a new syringe. There may be a small amount of bleeding at the injection site. It is important that people use the size that they and their health care provider have agreed is best. A very fine needle may be less painful but may not be the best choice for some people. Note: The injection sites differ slightly from those with insulin as well: • insulin - abdomen, thigh, upper arm, buttock
IN5. Discuss the proper storage of insulin.	The insulin bottle being used may be kept at room temperature. Extra unopened bottles of insulin need to be stored in a refrigerator. Insulin may be kept at room temperature for up to 28 days after opening. Injecting insulin which is at room temperature is more comfortable than injecting cold insulin. Insulin at room temperature may cause fewer skin irritations. Lispro, regular insulin and Glargine are clear. They should not have any particles floating in the bottle. Throw away the bottle if there are particles or the insulin is cloudy.	Do not use insulin that has been exposed to temperatures that are too hot or too cold. Insulin kept at temperatures more that 86°F (e.g., on the window sill in direct sunlight on a hot summer day or in a hot car) or at freezing temperatures will lose its strength. Pack insulin in an insulated container (e.g., small ice chest) when traveling. Have visual aids available, such as insulin carrying packs, small ice chests, etc.

Objective	Content	Educator's Notes
IN5. (continued)	NPH and Ultralente are cloudy. Do not use the insulin if there are large particles or there is a white substance at the bottom of the jar after mixing.	
IN6. Discuss the proper disposal of insulin syringes and other sharps.	Do not throw needles in the trash. Place used needles in a thick plastic container with a screw top cap (e.g., bleach, detergent or fabric softener bottle). Needles and syringes may be used more than once if a person needs to.	Ask, "How do you throw away your sharps?" List responses. Discuss local sharps disposal information and distribute handout. Discard the needle/syringe after 24 hours to decrease risk of infection. Needles will get dull with use. Do not wipe needle with alcohol. This removes the silicone coating and can make injections more painful. Replace cap without touching the needle. Move the plunger up and down after each use to prevent needle clogs. Local policies need to be developed for reuse of needles and syringes.
IN7. Discuss the major side effect of taking insulin.	Low blood sugar is a side effect of insulin. Low blood sugar may happen when a person: • takes insulin and skips a meal or a snack • takes too much insulin • is more active than usual Low blood sugar is more likely to happen when the insulin is working the most to lower blood sugar (peak action). Low blood sugar can be treated with foods or drinks that contain sugar.	 Visual #10: *Insulin Action Times* Treatment for low blood sugar is covered in Session 9.

Objective	Content	Educator's Notes
INGS. State or write a personal plan for using insulin.	Making changes in health habits, such as using insulin, is easier when plans are broken down into small, easy-to-do steps.	Visual #6: *Changes I Can Make* Have participants write or state one thing they can do when using insulin. See Session 3: *Making Healthy Changes*.

SKILLS CHECKLIST

Each participant taking diabetes medicines will be able to write or state a plan for taking their diabetes medicines. Each insulin-taking participant will be able to write or state a personal plan for using insulin and demonstrate drawing up the correct amount of insulin, injecting the insulin correctly and rotating injection sites correctly.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by appropriate use of diabetes medicines and/or insulin. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes*.

Remembering Medicine

You left home with your family about 2 hours ago for a drive out of state to visit relatives for a couple weeks. You are looking forward to the travel and visit since the past couple weeks have been so hectic:

- your work hours changed a couple weeks ago
- you have been helping some people out for several days by driving them to places they need to go
- your health care provider also changed your medicine 2 weeks ago

You do not feel comfortable yet with the new medicine. It has also been hard to take your medicine this week with all the changes in your schedule. You are supposed to be taking your diabetes pill before breakfast and before dinner, but this week you often forgot the breakfast pill. You also take insulin at bedtime and you remembered to take this most nights. But now you realize you have forgotten to bring your insulin and syringes with you on this trip.

1. **What would you do to plan ahead for travel?**

_____
_____
_____
_____

2. **What are some things you need to do whenever your medicine is changed?**

_____
_____
_____
_____

3. **What would you do to remember your medicine?**

_____
_____
_____
_____

Remembering Medicine

You left home with your family about 2 hours ago for a drive out of state to visit relatives for a couple weeks. You are looking forward to the travel and visit since the past couple weeks have been so hectic:

- your work hours changed a couple weeks ago
- you have been helping some people out for several days by driving them to places they need to go
- your health care provider also changed your medicine 2 weeks ago

You do not feel comfortable yet with the new medicine. It has also been hard to take your medicine this week with all the changes in your schedule. You are supposed to be taking your diabetes pill before breakfast and before dinner, but this week you often forgot the breakfast pill. You also take insulin at bedtime and you remembered to take this most nights. But now you realize you have forgotten to bring your insulin and syringes with you on this trip.

1. **What would you do to plan ahead for travel?**

   Take enough medicine for the trip plus extra. Always keep your medicines with you when you travel, not in your suitcase. You might carry supplies separately in a special tote bag. Keep insulin from getting too hot or too cold -- pack it in an insulated container. Carry a prescription for your medicine and/or doctor's letter. This is helpful if you forget/lose medicine and it is sometimes required.

2. **What are some things you need to do whenever your medicine is changed?**

   It is important to check blood sugar more often when changing diabetes medicines because it shows if you are reaching target blood sugar goals and tells you times when blood sugar is too high or too low. Diabetes medicine (pills and/or insulin) is adjusted or changed until target blood sugar goal is reached. Learn the name of the medicine taken, including how much and how often. Talk to your health care provider about guidelines for reporting high and low blood sugar and side effects.

3. **What would you do to remember your medicine?**

   Things that can help you remember to take medicine include:
   - take them about the same time each day
   - take them with other pills or when doing a routine activity, such as brushing teeth
   - keep medicine in plain sight or close to where it will be used
   - think about times that are hard to remember and give self-reminders, such as notes in a lunch box or setting a watch alarm.

SESSION

7

Home Blood Sugar Monitoring

DM-BGM Home Blood Sugar Monitoring

STATEMENT OF PURPOSE

This session provides information about the purpose of checking blood sugar and how to record and use the results.

PREREQUISITES

It is helpful if blood sugar meter instruction is completed prior to this session. It is recommended that participants bring their meters, as well as blood sugar records, to this session.

LEARNING OBJECTIVES

DM-BGM1	Explain that people with diabetes use a meter to learn how much sugar is in the blood.
DM-BGM2	List benefits of checking blood sugar.
DM-BGM3	State target blood sugar ranges to decrease risk for complications.
DM-BGM4	Discuss personal blood sugar goals.
DM-BGM5	State when to check blood sugar.
DM-BGM6	Discuss proper technique for checking blood sugar.
DM-BGM7	Demonstrate how to record results correctly.
DM-BGM8	Discuss benefits of bringing meter and logbooks to clinic visits.
DM-BGM9	State proper disposal of sharps.

DM-BGM10	State how to get supplies to check blood sugar.
DM-BGMGS	State or write a plan to check blood sugar.
DM-BGMGNS	Behavior goal not set (follow-up).
DM-BGMGM	Behavior goal met (follow-up).
DM-BGMGNM	Behavior goal unmet (follow-up).

CONTENT

Monitoring

MATERIALS NEEDED

Visuals Provided

#1 *Healthy Behaviors: Home Blood Sugar Monitoring*
#2 *You Need to Know Your Blood Sugar Numbers*
#3 *Target Blood Sugar Goals*
#4 *Checklist for Meter Use* (optional)
#5 *Sample Diabetes Records* #1-4 (examples with data)
#6 *Sample Diabetes Record* (blank)
#7 *Changes I Can Make*

Additional

My Personal Care Record
American Diabetes Association Resource Guide
Samples or list of blood sugar meters and strips
Samples or list of lancets and lancet devices
Samples of logbooks
Sample sharps disposal containers
Local sharps disposal information

METHOD OF PRESENTATION

Start by introducing yourself. Use a creative icebreaker. (See Introduction on p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with diabetes. Explain that the purpose of this session is to provide information about checking blood sugar.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate the discussion. Conclude this session by presenting examples of blood sugar logs/ records. Discuss with participants how blood sugar results can help them learn to balance food choices, physical activity and medicines and manage emotions and stress. Have a variety of teaching tools

available based on participants' learning needs. Be creative and encourage interaction. A videotape may also be shown to introduce content if available.

It is suggested that specific instructions for checking blood sugar (using particular meters/procedures) be taught on a one-on-one basis. This session emphasizes problem-solving regarding checking blood sugar for participants who already use meters.

CONTENT OUTLINE

Objective	Content	Educator's Notes
BGM1. Explain that people with diabetes use a meter to learn how much sugar is in the blood.	Checking blood sugars is a way to tell how much sugar is in the blood at the time of the check. There are many things that can change the level of sugar in the blood. Some include: • type and amount of food and drinks • timing of meals • physical activity • medicines • timing of diabetes medicines • stress • illness	Ask, "Who is checking their blood sugar at home? What has been your experience?" List responses. Visual #1: *Healthy Behaviors: Home Blood Sugar Monitoring* Have participants identify their current home blood sugar monitoring behaviors.
BGM2. List benefits of checking blood sugar.	Checking blood sugar gives information needed to make decisions about daily diabetes care. Some of the benefits are: • knowing if numbers are in target goal range • seeing how food choices can change blood sugars • seeing how physical activity can change blood sugars	Visual #2: *You Need to Know Your Blood Sugar Numbers* It is important to be in the target range. If a person is not in this range, they will want to make self-care changes. The type and amount of food, and frequency of eating, may affect blood sugar levels. Physical activity helps the body to use sugar and makes insulin work better.

Objective	Content	Educator's Notes
BGM2. (continued)		People with diabetes need physical activity 5 or more days each week.
	• knowing if blood sugar is low	The only way to know if someone is really having low blood sugar is to check the blood.
	• knowing if blood sugar is high (especially during times of stress or illness)	Blood sugar may be high and the person may not feel bad. Checking when a person thinks they may have high blood sugar can help them take action if it is high.
	• seeing how medicine is working	A health care provider may need to change diabetes medicine based on blood sugar results.
BGM3. State target blood sugar ranges to decrease risk for complications.	People with diabetes who keep their blood sugar within target ranges have a lower chance for diabetes complications.	High blood sugar over many years can cause problems in the blood vessels and nerves in the body. This leads to problems in the eyes, heart, kidneys and feet.
	The target range for persons with diabetes is: • 80-120 mg/dl fasting • 80-140 mg/dl 2 hours after a meal • 100-140 mg/dl bedtime	Visual #3: *Target Blood Sugar Goals* These goals are for whole blood glucose. Add 10-15% to convert these to plasma glucose. Discuss any variation in goals for facility/community based on local consensus guidelines.
BGM4. Discuss personal blood sugar goals.	Target ranges may vary based on a person's health, lifestyle, diabetes care goals and other events.	Ask, "Would anyone share their target blood sugar goals?" Remind participants that many things affect blood sugar, such as celebrations, funerals, family stress, etc. People may find it hard to control many of these things. Ask participants to share life events that have affected their blood sugar.

Objective	Content	Educator's Notes
BGM5. State when to check blood sugar.	Check blood sugar at scheduled times during the day. Some possible times are: • fasting	"Fasting" is when a person has not had anything to eat or drink (except water) for at least 8 hours. Fasting sugars give information about blood sugars during the night.
	• before lunch or supper	Some foods cause blood sugar to go up more than others. Check blood sugar when trying new foods or when eating foods that raise blood sugar.
	• 2 hours after any meal	Damage to small blood vessels is associated with high blood sugar after meals.
	• bedtime • during times of stress or illness (check more often) • when having symptoms of high or low blood sugar • after physical activity	Check before and after physical activity, especially when starting a new activity.
	Here are examples of how to mix and match times: • fasting and before largest meal • fasting and 2 hours after meals • before or after lunch or supper and bedtime	
	Times for checking blood sugars will vary for each person.	Times vary based on physical limitations, personal schedules, willingness to test, etc. Encourage participants to work with their health care provider or diabetes educator to choose times that are best for them. Check at least 2 days each week, 2 times a day if blood sugar is at target goal.

Objective	Content	Educator's Notes
BGM5. (continued)		Some people need to check more often when they are: • working to reach their target goal • changing their eating behavior • changing their physical activity • changing their medicines
BGM6. Discuss proper technique for checking blood sugar.	There are many meters that can check blood sugars. All meters require the following steps: • get a blood sample • place blood on strip/meter • read blood sugar number • record blood sugar number • safely throw away sharps	Visual #4: *Checklist for Meter Use* (optional) Participants need to know if their meter reports whole blood or plasma results. Plasma glucose values are 10-15% higher than whole blood glucose values. Provide information about what participants should do if they have meter questions or problems.
	Checking blood sugar may seem hard to do at first. Here are some ways to make it easier:	Ask participants to share their concerns and feelings about checking their blood sugar at home. People may feel afraid of sticking their fingers with a lancet. People will feel less afraid after some time.
	• keep the things needed in one place, such as a small box or bag	Keeping supplies in one place, will save time.
	• plan ways to make checking a part of the daily routine • find reminders that help with remembering to check • think about how this helps reach blood sugar goals	Ask, "What have you found that helps you to remember to check?" List responses. Examples are using an alarm clock and sticky notes and getting help from family members.
	Helpful tips for getting a drop of blood to check blood sugar include:	Ask, "What problems have you had when checking your sugar? What helped you solve them?" List responses.
	• wash hands with warm water • hang hands down at the side for a while before the finger stick	Demonstrate the tips.

Objective	Content	Educator's Notes
BGM6. (continued)	• gently squeeze the fingertip until it turns red • get the drop of blood from the side of finger instead of the center or top Do not use blood sugar monitoring equipment that belongs to another person. Do not share equipment with other people.	 Stress the importance of not sharing lancets and lancet devices to prevent the spread of infection.
BGM7. Demonstrate how to record results correctly.	Write down blood sugar numbers in a log or record book. • look for patterns in blood sugar levels • think about possible causes for changes in blood sugar patterns • look to see if the numbers are in the target range in log book or results stored in memory. • learn to use the blood sugar numbers to make eating and physical activity changes that help to keep the numbers in the target range	Visual #6: *Sample Diabetes Record* (blank). Demonstrate how to write results in a record or logbook. Use Visual #5: *Sample Diabetes Record #1-4* (examples with data) for discussion of patterns or use local examples. Review blood sugar target goal ranges. Show samples of logbooks. (Note: Review target blood sugar goals listed in logbooks and change to match local target blood sugar goals as needed.)
BGM8. Discuss benefits of bringing meter and logbooks to clinic visits.	It is important to share blood sugar results with the diabetes care team. This information can help each person and the diabetes care team make changes in the person's diabetes treatment plan.	Some health care providers may be able to download the information from a person's meter and print a report of results. Some health care providers will need to review the numbers written in a person's log/record book. Stress participant's role and responsibility in providing information about home blood sugar results to the diabetes care team.

Objective	Content	Educator's Notes
BGM9. State proper disposal of sharps.	Do not throw sharps in the trash. Place used sharps in a thick plastic container with a screw top cap, like a bleach, detergent or fabric softener bottle.	Ask, "How do you throw away your sharps or lancets?" List responses. Sharps include needles and lancets. Use words for these supplies that are common in the community. Show sample sharps disposal containers and discuss local policies. Local policies need to be developed based on EPA guidelines. The local ADA is a resource for policy development. Discard the sharp (lancet) after 24 hours to decrease the risk of infection.
BGM10. State how to get supplies to check blood sugar.	Clinics and health care providers differ in how blood sugar checking supplies are provided to community members. Learn how to get blood sugar checking supplies from the diabetes care team.	Provide local information about how to get supplies to check blood sugar at home.
BGMGS. State or write a plan to check blood sugar.	Making changes in health habits, such as checking blood sugar, is easier when plans are broken down into small, easy-to-do steps.	Visual #3: *Target Blood Sugar Goals* Review and assist participants to state or write their personal target blood sugar goals. Visual #1: *Healthy Behaviors: Home Blood Sugar Monitoring* Review current monitoring behaviors identified at the beginning of the session. Visual #7: *Changes I Can Make* Assist participants to state or write one thing they will do to improve their home blood sugar monitoring behavior. See Session 3: *Making Healthy Changes.*

SKILLS CHECKLIST

Each participant will be able to do a blood sugar check using the appropriate technique and record the results.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by identifying at least one change to make for checking blood sugar. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes*.

Home Blood Sugar Monitoring

Your health care provider changed your diabetes medicine 2 weeks ago. She asked you to check your blood sugars at home twice a day, write down the result in the logbook she gave you and bring the logbook to your appointment today. Your logbook for last week looks like this:

Fasting	Breakfast	Lunch	Dinner	Bedtime
198		267		
172			165	
178		250		
150			65	
	167	201		

1. **What does your logbook tell you about your new diabetes medicine and your blood sugar?**

_____
_____
_____
_____

2. **What other things could you write in your logbook to give you more information about the effect of your new medicine on your blood sugar?**

_____
_____
_____
_____

3. **You brought your logbook to your clinic visit, but your health care provider did not ask to see it. What would you do?**

_____
_____
_____
_____

Home Blood Sugar Monitoring

Your health care provider changed your diabetes medicine 2 weeks ago. She asked you to check your blood sugars at home twice a day, write down the results in the logbook she gave you and bring the logbook to your appointment today. Your logbook for last week looks like this:

Fasting	Breakfast	Lunch	Dinner	Bedtime
198		267		
172			165	
178		250		
150			65	
	167	201		

1. **What does your logbook tell you about your new diabetes medicine and your blood sugar?**

   There is not enough information to evaluate the effect of medicine; need logbook from before and after it was changed. Some medicine takes several weeks to show an effect on blood sugar. Personal blood sugar goals are also needed to determine if these numbers are close to them. There are no comments about food, activity or how they were feeling. These numbers are not at target blood sugar goals. One day shows a low blood sugar.

2. **What other things could you write in your logbook to give you more information about the effect of your new medicine on your blood sugar?**

   Time and amounts of food and activity would provide more information to evaluate blood sugars. It is important to write down any symptoms when blood sugar is low (or any time you have symptoms) and what action you took. Any illness needs to be noted in the logbook.

3. **You brought your logbook to your clinic visit, but your health care provider did not ask to see it. What would you do?**

   Always offer your log book to your healthcare provider and/or diabetes educator to look at. Ask them to review results with you. You might say, "You asked me to keep a logbook. Would you talk with me about my numbers?" Health care providers sometimes forget to ask for it and they will appreciate the reminder.

SESSION

8

Knowing Your Numbers-ABC

DM-ABC
Knowing Your Numbers: A1c, Blood Pressure, Cholesterol

STATEMENT OF PURPOSE

This session provides information about the importance of controlling blood sugar, blood pressure and blood fats to reduce the risk of cardiovascular disease.

PREREQUISITES

None

LEARNING OBJECTIVES

DM-ABC1	Verbalize one reason for measuring Alc.
DM-ABC2	State the target A1c goal for blood sugar control.
DM-ABC3	Identify current A1c.
DM-ABC4	State 2 or more ways to reach or maintain A1c goal.
DM-ABC5	Verbalize one reason for measuring blood pressure.
DM-ABC6	State the target goal for blood pressure control.
DM-ABC7	Identify current blood pressure.
DM-ABC8	State 2 or more ways to reach or maintain target blood pressure goal.
DM-ABC9	Verbalize one reason for measuring blood fats.
DM-ABC10	State the target goals for blood fats.
DM-ABC11	Identify at least one current blood fat level.
DM-ABC12	List 2 or more ways to reach or maintain target blood fat goals.

DM-ABC13	State where to get help to improve ABC numbers.
DM-ABCGS	State or write a plan to reach or maintain at least one of the ABC numbers.
DM-ABGNS	Behavior goal not set (follow-up).
DM-ABCGM	Behavior goal met (follow-up).
DM-ABCGNM	Behavior goal unmet (follow-up).

CONTENT

A1c, blood pressure, blood fats

MATERIALS NEEDED

Visuals Provided

#1 *Be Smart About Your Heart: Control the ABCs of Diabetes*
#2 *You Need to Know Your Blood Sugar Numbers*
#3 *How to Compare Hemoglobin A1c Numbers to Blood Sugar Numbers*
#4 *How to Have a Healthy Heart*
#5 *Stay Young at Heart*
#6 *Taking Care of Your Heart*
#7 *Blood Vessels and Fat*
#8 *Types of Fat in the Blood*
#9 *There's Comfort in Knowing Your Numbers*
#10 *Changes I Can Make*

Additional

Model of red blood cell with glucose attached
Model of arteries with fat
Samples of wallet cards or similar records to record ABC numbers

METHOD OF PRESENTATION

Start by introducing yourself. Use a creative icebreaker. (See Introduction on p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with diabetes. Explain that the purpose of this session is to provide information about the value and use of checking blood sugar, blood pressure and blood fats.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate the discussion. A videotape could also be shown to introduce content if available.

CONTENT OUTLINE

Objective	Content	Educator's Notes
Introduction: Why are the ABCs of diabetes important?	People with diabetes have a greater chance of having a heart attack and stroke. They can lower their chances by controlling their A1c, blood pressure and cholesterol. The ABCs of diabetes focus on these risk factors: • A stands for A1c • B stands for blood pressure • C stands for cholesterol	Visual #1: *Be Smart About Your Heart* The leading cause of death in American Indian and/or Alaskan Native people is heart disease. A1c measures a person's blood sugar average over 3 months. Blood pressure measures how much work the heart has to do. Cholesterol measures how much fat is in the blood. Other risk factors for heart attack and stroke are: • family history of heart attack and stroke • smoking • stress
ABC1. Verbalize one reason for measuring A1c.	High blood sugar for long periods of time increases the chance of heart disease. Checking A1c is one way to know if blood sugar is at target goal.	Visual #2: *You Need to Know Your Blood Sugar Numbers* An A1c is a blood test done in a clinic. There are also products available to test A1c at home. Note: Estimated Average Glucose (eAG) is being reported together with A1c by some labs. The eAG is reported in the same units as blood sugar checks—mg/dl. This can help the diabetes care team, including the person with diabetes, better understand what the A1c result is saying about the achievement of target blood sugar goals. Recommendations and

Objective	Content	Educator's Notes
ABC1. (continued)		guidelines for the use of eAG vary among experts. Educators need to check local facility standards and policies regarding the use and availability of eAG reports.
	The A1c test shows how much sugar has been in the blood over the last 3 months. A high A1c number means blood sugar has been high.	Sugar leaves a protein substance on the hemoglobin part of the red blood cell. With higher blood sugar, more of the protein substance sticks to the hemoglobin. If blood sugar has been close to normal, then a smaller amount of protein substance sticks to the hemoglobin. Use model of red blood cell with glucose attached.
	The A1c number and the numbers from checking blood sugar at home should be in a close range to each other.	Visual #3: *How To Compare Hemoglobin A1c Numbers to Blood Sugar Numbers* Show how to compare A1c numbers to blood sugar numbers.
	If home blood sugar numbers and A1c are not in close range to each other, it may mean: • a person may not be checking when their blood sugar is high or low • test strips are not good or are outdated • there are logbook errors • there are technique errors	Discuss the relationship between the A1c percent and average blood sugar. Review recommended times for checking blood (e.g., fasting, after meals, etc). Home blood sugar monitoring is covered in Session 7. For example, incorrect amounts of blood on the test strip can cause incorrect meter results.
	A person has a better chance of delaying or preventing problems with their heart when the A1c is less than 7%.	Ask participants what benefits to controlling blood sugar they see for themselves. List responses. Other chronic complications are covered in Session 10.
	People with diabetes need to have an A1c test every 3-6 months.	An A1c may be needed more often if blood sugar stays too high (not at A1c goal) or there is a change in diabetes medicine.

Objective	Content	Educator's Notes
ABC2. State the target A1c goal for blood sugar control.	The recommended target goal for A1c for people with diabetes is less than 7%. This means the blood sugar is staying close to normal. A change in meal plan, physical activity and/or diabetes medicine is needed if the A1c is over 8%.	Visual #1: *Be Smart About Your Heart* Local programs may choose to recommend a lower A1c goal. Lower goals need to be used with caution in people at greater risk for low blood sugar, such as the very young and elderly. Local programs may choose to make changes at a lower A1c.
ABC3. Identify current A1c.	It is important for people with diabetes to know their A1c. They can learn their current A1c by asking the diabetes care team for the most recent A1c.	Ask, "Does anyone know their A1c? Would anyone like to share it?" Assist participants to identify their current A1c and compare it to the target A1c goal. For example, review *RPMS Diabetes Flow Sheet* or similar information summary used by your facility, with participant. Have participants write their A1c on Visual #1: *Be Smart About Your Heart,* wallet card or similar record.
ABC4. State 2 or more ways to reach or maintain A1c goal.	A person will reach their A1c goal by reaching and staying at their target blood sugar goal. Ways to control blood sugar include: • making healthy food choices • being physically active every day • reaching and staying at a healthy weight • taking diabetes medicines as prescribed • managing stress • checking blood sugar often	Ask, "What has helped you reach your target blood sugar?" List responses. Basics of healthy eating are covered in Session 4. Physical activity is covered in Session 5. Medicines are covered in Session 6.

Objective	Content	Educator's Notes
ABC5. Verbalize one reason for measuring blood pressure.	High blood pressure for long periods of time increases the chance of heart disease.	High blood pressure is also called hypertension.
	Measuring blood pressure is the only way to know if it is at target goal.	There is always some pressure on blood vessel walls. There is more pressure on blood vessel walls when the heart is pumping than when it is at rest. The top (higher) number on a blood pressure reading is the pressure on blood vessel walls when the heart is pumping and pushing blood out to the body. The bottom (lower) number is the pressure when the heart is resting between beats.
	High blood pressure makes the heart work too hard and damages blood vessels. This can lead to heart attacks and strokes.	Blood fats can also stick to vessel walls. The vessels become stiff. This is called arteriosclerosis or hardening of the arteries.
	Keeping blood pressure at the target goal will lower a person's chances for heart attack and stroke.	Ask, "What benefits are there to controlling blood pressure?" List responses.
	People with diabetes need to get their blood pressure checked at every clinic visit.	
ABC6. State the target goal for blood pressure control.	The recommended target goal for blood pressure for people with diabetes is below 130/80.	Visual #4: *How to Have a Healthy Heart* or Visual #1: *Be Smart About Your Heart* Treatment for high blood pressure is based on 3 blood pressure readings.
	A change in meal plan, physical activity and/or blood pressure medicine is needed if blood pressure is 130/80 or higher.	Eating less salt (including not adding salt while cooking or at the table) will lower blood pressure for some people. Ask, "Is anyone taking blood pressure medicine?" List responses. Some people need to take more than one blood pressure medicine at a time.

Objective	Content	Educator's Notes
ABC7. Identify current blood pressure.	It is important for people with diabetes to know their blood pressure. They can learn their current blood pressure by asking the diabetes care team for the most recent blood pressure.	Ask, "Does anyone know what their blood pressure number is? Would anyone like to share it?" Assist participants to identify their current blood pressure and compare it to the target blood pressure goal. For example, review *RPMS Diabetes Flow Sheet* or similar information summary used at your facility with participant. There are monitors available to measure blood pressure at home. Have participants write their blood pressure on Visual #1: *Be Smart About Your Heart,* wallet card or similar record.
ABC8. State 2 or more ways to reach or maintain target blood pressure goal.	These are ways to reach or maintain a person's blood pressure goal: • make healthy food choices, including eating less salt • be physically active every day • stay at a healthy weight • take blood pressure medicines as prescribed • stop tobacco use • drink less alcohol	Ask, "What are ways to reach your blood pressure goal?" List responses. This includes not adding salt while cooking or at the table when eating. Heart healthy eating is covered in Session 4. Some of these are also ways to reach blood sugar goals.
ABC9. Verbalize one reason for measuring blood fats.	High blood fats for long periods of time increase the chance of heart disease. Checking blood fats are the only way to know if they are at target goal. Cholesterol is one kind of blood fat. It includes:	Visual #5: *Stay Young at Heart* or Visual #6: *Taking Care of Your Heart* Blood fats are also called lipids. Visual #8: *Types of Fat in the Blood*

Objective	Content	Educator's Notes
ABC9. (continued)	• LDL • HDL When LDL cholesterol is high, it builds up and clogs blood vessels. This can lead to heart attack and stroke. Controlling blood fats will lower a person's chances for heart attack and stroke.	LDL is also known as "lousy" or "bad" cholesterol. LDL deposits fat in blood vessels. HDL is also known as "healthy" or "good" cholesterol. HDL removes fat from blood and helps protect against heart disease. Use model of blood vessels with fat inside, Visual #7: *Blood Vessels and Fats* or Visual #6: *Taking Care of Your Heart*. Triglycerides are another kind of blood fat. They often occur with high blood sugar levels and may contribute to heart disease.
ABC10. State the target goals for blood fats.	The recommended target goals for blood fats are: • cholesterol below 200 • LDL below 100 • HDL above 45 in men and above 55 in women • Triglycerides below 150 A change in meal plan, physical activity and/or blood fat lowering medicines is needed if blood fats are not at these target goals.	Visual #1: *Be Smart About Your Heart* or Visual #5: *Stay Young at Heart* Higher numbers are better for HDL.
ABC11. Identify at least one current blood fat level.	It is important for people with diabetes to know their blood fat numbers. They can learn their current blood fat numbers by asking the diabetes care team for the most recent test results.	Visual #6: *Taking Care of Your Heart* Ask, "Does anyone know what their blood fat numbers are? Would anyone like to share them?" Assist participants to identify their current blood fat numbers and compare them to the target blood fat goals. For example, review *RPMS Diabetes Flow Sheet* or similar information summary used at your facility with participant.

Objective	Content	Educator's Notes
ABC11. (continued)		Have participants write their blood fat numbers on Visual #1: *Be Smart About Your Heart,* wallet card or similar record.
ABC12. List 2 or more ways to reach or maintain target blood fat goals.	These are ways to reach or maintain target blood fat goals: • make healthy food choices • be physically active every day • reach and stay at a healthy weight • take blood fat lowering medicine as prescribed • drink less alcohol	Visual #6: *Taking Care of Your Heart* Ask, "Is anyone taking blood fat lowering medicine?" Eating less saturated fat can help lower LDL and substituting mono-unsaturated fat can help increase HDL. Limiting sugar and alcohol can help lower triglycerides. Heart healthy eating is covered in Session 4. Increasing physical activity can help lower cholesterol, LDL and triglycerides and raise HDL.
ABC13. State where to get help to improve ABC numbers.	People can work with their diabetes care team to improve ABC numbers. Keep a record of ABC numbers and bring them to visits to discuss with the diabetes care team. Ask the diabetes care team questions, such as: • what are my ABC numbers? • what should my ABC target numbers be? • what can I do to reach my ABC target numbers?	Some participants may find it difficult to ask for information/help from their health care provider to improve their A1c numbers. Role-playing can help participants communicate with their diabetes care team to improve their ABC numbers. Visual #9: *There's Comfort in Knowing Your Numbers*

Objective	Content	Educator's Notes
ABCGS. State or write a plan to reach or maintain at least one of the ABC numbers.	Making changes in health habits, such as reaching ABC number goals, is easier when plans are broken down into small, easy-to-do steps.	Visual #10: *Changes I Can Make* Have participants write or state at least one thing they will do to reach or maintain at least one of the ABC numbers. See Session 3: *Making Healthy Changes*.

SKILLS CHECKLIST

Each participant will be able to identify their current A1c, blood pressure and at least one blood fat level and write them on Visual #1: *Be Smart About Your Heart.*

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by the participant's ability to make a plan to achieve ABC number goals. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes*.

Controlling Risks for Heart Disease

At your last clinic visit, your health care provider said you have more chance for heart disease because you have diabetes. He wants you to decrease your risks for heart disease. He had you get some blood tests and said he would talk to you more next week about your blood sugar, blood pressure and blood fats.

1. **Why are blood sugar, blood pressure and blood fats important for preventing heart disease? How did your health care provider measure these? What would you want your numbers to be?**

_____
_____
_____
_____

2. **What other risk factors for heart disease would you want to control?**

_____
_____
_____
_____

3. **What would you do to lower your chances for heart disease?**

_____
_____
_____
_____

Controlling Risks for Heart Disease

At your last clinic visit, your health care provider said you have more chance for heart disease because you have diabetes. He wants you to decrease your risks for heart disease. He had you get some blood tests and said he would talk to you more next week about your blood sugar, blood pressure and blood fats.

1. **Why are blood sugar, blood pressure and blood fats important for preventing heart disease? How did your health care provider measure these? What would you want your numbers to be?**

   High blood sugar, high blood pressure and high blood fats over long periods of time increase the chance for heart disease. High blood sugar, high blood pressure and high blood fats all damage blood vessels and contribute to arteriosclerosis (hardening of the arteries). Checking the A1c (blood test) is one way to know if blood sugar is at target goal. Measuring blood pressure is the only way to know if blood pressure is at target goal. Checking blood fats (blood test) is the only way to know if they are at target goal. The recommended target goals are: A1c below 7%, blood pressure below 130/80 and blood fats—cholesterol below 200, LDL below 100, HDL above 55 in women and above 45 in men, triglycerides below 150.

2. **What other risk factors for heart disease would you want to control?**

   Other risk factors for heart disease are smoking, being heavy, being inactive and stress. A family history of heart disease is a risk factor you cannot control.

3. **What would you do to lower your chances for heart disease?**

   Ways to decrease chances for heart disease include keeping blood sugar, blood pressure and blood fats at target goals, taking aspirin if prescribed, stopping tobacco use, staying at a healthy weight, being more active, managing stress and seeing a health care provider at least every 6 months. Report symptoms of heart problems right away.

SESSION

9 Balancing Your Blood Sugar

DM-AC Acute Complications

STATEMENT OF PURPOSE

This session provides information on recognizing and treating low and high blood sugar and instructions for sick day management.

PREREQUISITES

It is recommended that participants have basic knowledge about the pathophysiology of diabetes and home blood sugar monitoring.

LEARNING OBJECTIVES

Section 1: Low Blood Sugar

DM-AC1	Define low blood sugar.
DM-AC2	Discuss 2 or more causes of low blood sugar.
DM-AC3	List 2 or more symptoms of low blood sugar.
DM-AC4	State 2 or more actions to take when feeling symptoms of low blood sugar.
DM-AC5	State 2 or more actions to prevent low blood sugar.
DM-ACGS	State or write a plan to use for low blood sugar, high blood sugar or sick day management.
DM-ACGNS	Behavior goal not set (follow-up).
DM-ACGM	Behavior goal met (follow-up).
DM-ACGNM	Behavior goal unmet (follow-up).

Section 2: High Blood Sugar

DM-AC6	Define high blood sugar.
DM-AC7	State 2 or more causes of high blood sugar.
DM-AC8	List 2 or more symptoms of high blood sugar.
DM-AC9	Discuss 2 or more actions to take when blood sugar is high.
DM-AC10	State 2 or more actions to take to prevent high blood sugar.
DM-ACGS	State or write a plan to use for low blood sugar, high blood sugar or sick day management.
DM-ACGNS	Behavior goal not set (follow-up).
DM-ACGM	Behavior goal met (follow-up).
DM-ACGNM	Behavior goal unmet (follow-up).

Section 3: Sick Day Management

DM-AC11	Explain how blood sugar is affected during illness.
DM-AC12	State 2 or more things to do to manage blood sugar when sick.
DM-AC13	Identify 2 or more food and drink choices to use when sick.
DM-ACGS	State or write a plan to use for low blood sugar, high blood sugar or sick day management.
DM-ACGNS	Behavior goal not set (follow-up).
DM-ACGM	Behavior goal met (follow-up).
DM-ACGNM	Behavior goal unmet (follow-up).

CONTENT

Acute complications

MATERIALS NEEDED

Visuals Provided

#1 *Target Blood Sugar Goals*
#2 *Low Blood Sugar Symptoms*
#3 *How Can You Treat Low Blood Sugar?*
#4 *High Blood Sugar Symptoms*
#5 *How Can You Treat High Blood Sugar?*
#6 *Sick Day Guidelines*
#7 *Sugar-Free Fluids*
#8 *Foods That Contain 15 Grams of Carbohydrate*
#9 *Changes I Can Make*

Additional

Diabetes identification information
Samples of glucose products
Measuring spoons and ½ cup measure

Sick day kit: a box or bag with samples of foods such as Jell-O, single serving pudding, canned juice, soda, applesauce, crackers, oatmeal, bouillon cubes or broth, tea bags, etc.

METHOD OF PRESENTATION

Start by introducing yourself. Use a creative icebreaker. (See Introduction on p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with diabetes. Explain that the purpose of this session is to provide information about sick day guidelines and the recognition, prevention and treatment of low and high blood sugar.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate the discussion. Use monitoring records or develop examples that participants can use for problem-solving. A videotape could also be shown to introduce content if available.

CONTENT OUTLINE

Section 1: Low Blood Sugar

Objective	Content	Educator's Notes
Introduction	If blood sugar goes too low or too high, it can cause problems. Blood sugar in people without diabetes is: • 70-99 mg/dl Fasting • 70-139 mg/dl After meals Target blood sugar goals for people with diabetes are: • 80-120 mg/dl Fasting • 80-140 mg/dl 2 hrs after a meal • 100-140 mg/dl at bedtime	Visual #1: *Target Blood Sugar Goals* Ask, "What is your target blood sugar goal?" These goals are for whole blood glucose. Add 10-15% to convert these to plasma glucose. Review these target blood sugar ranges with participants as a point of reference for assessing low and high blood sugar.
AC1. Define low blood sugar.	Low blood sugar is also called hypoglycemia. Low blood sugar is a blood sugar level below 70 mg/dl.	
AC2. Discuss 2 or more causes of low blood sugar.	Low blood sugar may be caused by:	Ask participants their ideas for what may cause low blood sugar. List responses.

Objective	Content	Educator's Notes
AC2. (continued)	• too much insulin or some diabetes pills • skipped meals or snacks or waiting too long to eat after taking medication • eating less than usual • being more active than usual • other medicines • hormonal changes in women • nerve damage to the stomach • kidney damage • increased stress • drinking alcohol without eating	Medicines are covered in Session 6. Emphasize the importance of checking blood sugar at home to know how these things affect a person's blood sugar. Elderly people are more likely to have problems with low blood sugar.
AC3. List 2 or more symptoms of low blood sugar.	Symptoms of low blood sugar are: • shaky or being lightheaded • feeling weak • cannot think clearly • nervous or sweaty • fast heart beat • headache • blurry vision • numbness around mouth • angry or confused • hungry Symptoms of low blood sugar usually appear very fast. If blood sugar has been high for a long time, as it comes down to the target goal, people may feel symptoms of low blood sugar. It may take several days or weeks for the body to adjust to blood sugar at the target goal because the body has been used to high blood sugar.	Ask, "Has anyone had low blood sugar? How did you feel when you had low blood sugar?" List responses. Most people have the same symptoms each time they have low blood sugar. Visual #3: *How Can You Treat Low Blood Sugar?* and Visual #2: *Low Blood Sugar Symptoms* Remind participants that if blood sugar is not below 70, it is not an emergency. Talk to a health care provider if there are symptoms of low blood sugar when it is not below 70. Suggest participants try a sugar-free liquid or gum to decrease symptoms. Some people may need a small snack (15 grams of carbohydrate) to make the symptoms go away. Emphasize that eating or drinking sugar when blood sugar is high will make it go higher.

Objective	Content	Educator's Notes
AC4. State 2 or more actions to take when feeling symptoms of low blood sugar.	Having low blood sugar can be scary for the person with diabetes and their family. Knowing how to handle low blood sugar makes it less scary. This is how to treat low blood sugar: • check blood sugar • if the blood sugar number is less than 70 mg/dl, choose one serving of a sugar food/ drink (15 grams of carbohydrate), such as: - ½ cup of fruit juice - ½ cup of regular (not diet) soft drink - 1 glass (8 ounces) of milk - 4 teaspoons of sugar - 8 pieces of hard candy, such as Brachs or LifeSavers - 1 tablespoon honey - 3-4 glucose tablets • check blood sugar 15 minutes after having the sugar food or drink - if the blood sugar number is still less than 70 mg/dl or the person is still having symptoms, they need to do the same treatment again.	Ask, "What have you done to treat low blood sugar?" List responses. Family members also need to know what to do. Visual #3: *How Can You Treat Low Blood Sugar?* Information provided on treatment of low blood sugar may vary based on local guidelines. If a person feels symptoms of low blood sugar and cannot check it at that time, they need to go ahead and start treatment. Visual #8: *Foods That Contain 15 Grams of Carbohydrate* Show samples of sugar foods/drinks and glucose products. These servings are approximate. Check the label to determine a 15 gram portion of carbohydrate. High fat foods do not work well to treat low blood sugar. Fat slows down the blood sugar response to treatment and adds extra unnecessary calories. High fat foods that do not work well to treat blood sugar include: • candy bars • ice cream • doughnuts • potato chips • cheese • nuts • french fries • pies and cakes

Objective	Content	Educator's Notes
AC4. (continued)	• check blood sugar after another 15 minutes and again in one hour to make sure the blood sugar has gone above 70 mg/dl and stayed there	If still less than 70 mg/dl or symptoms are persistent, seek care right away. Stress the importance of treating low blood sugar right away and checking blood sugar often for the rest of the day.
	• eat a small snack or a meal if it is time for one	
	• write down the date and time of the low blood sugar and note any possible cause for the low blood sugar such as a skipped meal, more activity, etc.	Think about why the blood sugar was low and how it could have been prevented. Tell a health care provider if a person has low blood sugar more than once in a week and does not know why.
AC5. State 2 or more actions to prevent low blood sugar.	These are ways to prevent low blood sugar: • learn when low blood sugar is most likely to happen	Low blood sugar is most likely to happen when: • medicine is working the strongest • skipping meals • taking too much diabetes medicine Talk to a health care provider if this happens.
	• know when and how diabetes medicine the person takes works	A person is not likely to have low blood sugar if the person is not taking diabetes medicine. Medicines are covered in Session 6.
	• eat meals and snacks about the same time and amount each day • do physical activity about the same time and amount each day • take medicine as prescribed	Point out the importance of consistency in amounts and timing of medicines, food and activity.
	• know what to do about the diabetes medicine if a meal needs to be delayed or skipped	Talk to a health care provider about what to do.

Objective	Content	Educator's Notes
AC5. (continued)	• always carry a sugar food or drink in a pocket, purse and/ or car • check blood sugar often • carry identification that says the person has diabetes	People told not to eat before a clinic visit should bring medicine and a snack. Stress importance of checking blood sugar before physical activity, before driving a car and when there is a change in medicine, food or activity. Show samples and resources for diabetes identification.
ACG5. State or write a plan to use for low blood sugar, high blood sugar or sick day management.	Making changes in health habits, such as preparing for low blood sugar, is easier when plans are broken down into small, easy-to-do steps.	Visual #9: *Changes I Can Make* Have participants write or state one thing they can do for low blood sugar. See Session 3: *Making Healthy Changes*.

Section 2: High Blood Sugar

Objective	Content	Educator's Notes
AC6. Define high blood sugar.	High blood sugar is also called hyperglycemia. High blood sugar is when the blood sugar level is more than 140 mg/dl.	
AC7. State 2 or more causes of high blood sugar.	High blood sugar may be caused by: • not enough insulin or oral diabetes medicine • eating too much food • not enough physical activity • weight gain • other medicines	Ask participants their ideas for what may cause high blood sugar. List responses. Medicines that can cause high blood sugar include: • corticosteroids • catecholamines (stress hormones) • some diuretics • oral contraceptives

Objective	Content	Educator's Notes
AC7. (continued)	• increased stress • illness • infection • medicine that has expired or "gone bad" • too much alcohol	• niacin • sympathomimetics
AC8. List 2 or more symptoms of high blood sugar.	Symptoms of high blood sugar are: • urinating more often • thirst • dry mouth • feeling hungry • tiredness or weakness • blurred vision Symptoms of high blood sugar usually come on slowly. Some people with type 2 diabetes may not feel any of these symptoms until their blood sugar is more than 300 mg/dl. People with blood sugar greater than 300 mg/dl are more likely to have dehydration. Dehydration can become a serious problem if not treated right away. Symptoms of dehydration are: • dry mouth • feeling very tired • confusion • less urine • dark urine • abdominal pain • dizziness when standing • coma	Ask, "Has anyone had high blood sugar? What symptoms did you have when you had high blood sugar?" List responses. Visual #4: *High Blood Sugar Symptoms* This is an emergency and the person needs to go to the hospital right away. Untreated high blood sugar and dehydration can lead to hyperosmolar hyperglycemic nonketotic syndrome (HHNS). HHNS is an uncommon but potentially fatal acute complication of type 2 diabetes. See *Supplemental Readings* for references.
AC9. Discuss 2 or more actions to take when blood sugar is high.	These are actions to take when the blood sugar is more than 140mg/dl:	Visual #5: *How Can You Treat High Blood Sugar?*

Objective	Content	Educator's Notes
AC9. (continued)	• take medicine if a dose was skipped • eat planned meals	Think about why the blood sugar is high and how it could have been prevented. Ask, "What have you done to take care of your high blood sugar?" List responses. High blood sugar can be frustrating. Ask participants to share how it feels when blood sugar stays high while trying to bring it down.
	• be active • drink plenty of water or sugar-free fluids • check blood sugar more often	Caution participants to discuss with their health care provider their activity plans when blood sugar is over 300.
	Contact a health care provider for any of the following: • blood sugar readings above the usual range for more than a week • symptoms of high blood sugar • two blood sugars in a row over 300 mg/dl • vomiting, confusion or symptoms of severe dehydration	Discuss action plan for high blood sugar with a health care provider. See Objectives AC-11 and AC-12 for discussion of high blood sugar on sick days.
AC10. State 2 or more actions to take to prevent high blood sugar.	These are ways to prevent high blood sugar: • know target blood sugar goals • learn when high blood sugar is most likely to happen • eat meals and snacks, do physical activity and take medicine in about the same amounts and at about the same times each day • check blood sugar often • manage stress	Ask, "What are things you have done to prevent high blood sugar?" List responses.

Objective	Content	Educator's Notes
ACGS. State or write a plan to use for low blood sugar, high blood sugar or sick day management.	Making changes in health habits, such as preparing for high blood sugar, is easier when plans are broken down into small, easy-to-do steps.	Visual #9: *Changes I Can Make* Have participants write or state one thing they can do for high blood sugar. See Session 3: *Making Healthy Changes*.

Section 3: Sick Day Management

Objective	Content	Educator's Notes
AC11. Explain how blood sugar is affected during illness.	Illness usually raises blood sugar because: • the body releases stress hormones that can lead to high blood sugar • there is more chance for dehydration during illness as a result of high blood sugar	People with diabetes are at higher risk for illnesses such as colds, flu, infections, etc.
AC12. State 2 or more things to do to manage blood sugar when sick.	Sick day plans need to be made with a health care provider before illness occurs. These are ways to manage blood sugar when sick: • take diabetes medicine as usual • drink at least one small glass (8 ounces) of sugar-free fluids every hour to prevent dehydration • check blood sugar every 4 hours or more often • drink liquids and eat soft food if unable to eat the usual foods People need to contact their health care provider when:	Visual #6: *Sick Day Guidelines* Emphasize the importance of taking diabetes medicines when sick. Provide information for medicines that need to be taken with food. Medicines are covered in Session 6. Emphasize the importance of seeking care right away if any of these are present.

Objective	Content	Educator's Notes
AC12. (continued)	• vomiting for more than one day • diarrhea more than 5 times or for longer than 6 hours • high (101.5F) or rising fever • trouble breathing or breathing fast • blood sugar over 300 mg/dl for more than one day • feeling drowsy or faint • abdominal pain or other unusual pain • sickness for more than 2 days	
AC13. Identify 2 or more food and drink choices to use when sick.	Sugar-free fluids people can drink to prevent dehydration include: • water • sugar-free Kool-Aid • diet soft drinks • club soda • unsweetened tea People need to drink fluids or eat soft foods that contain some sugar when they are not able to eat regular foods because of nausea or poor appetite. They need to have one serving of liquids or soft foods that contain sugar (15 grams of carbohydrate) every hour.	Visual #7: *Sugar-Free Fluids* Visual #8: *Foods that Contain 15 Grams of Carbohydrate* Have participants practice choosing from the list. Show a sample *Sick Day Kit.*
ACGS. State or write a plan to use for low blood sugar, high blood sugar or sick day management.	Making changes in health habits, such as preparing for sick days, is easier when plans are broken down into small, easy-to-do steps.	Visual #9: *Changes I Can Make* Have participants write or state one thing they can do for sick days. See Session 3: *Making Healthy Changes.*

SKILLS CHECKLIST

Each participant will be able to make a plan to use for low blood sugar, high blood sugar and sick day management.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by identifying at least one change to make for managing low blood sugar, high blood sugar and sick days. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes*.

Balancing Blood Sugar

You just started on a new diabetes pill. You took your medicine before you left for work, but you were running late and did not eat any breakfast. A couple hours after you get to work you start to feel shaky, sweaty and weak.

1. **What do you think might be causing you to feel this way? How do you know?**

   _____
   _____
   _____
   _____

2. a. **Assuming the problem is low blood sugar, what would you do to treat this problem?**

   _____
   _____
   _____
   _____

   b. **If this had been high blood sugar, what would you do?**

   _____
   _____
   _____
   _____

3. **What could you do to plan ahead and keep this from happening in the future?**

   _____
   _____
   _____
   _____

4. **What would you tell co-workers/family members/friends about this situation? Discuss your feelings about sharing this information.**

   _____
   _____
   _____
   _____

Balancing Blood Sugar

You just started on a new diabetes pill. You took your medicine before you left for work, but you were running late and did not eat any breakfast. A couple hours after you get to work you start to feel shaky, sweaty and weak.

1. **What do you think might be causing you to feel this way? How do you know?**

   Based on the symptoms in the story, the person is having low blood sugar.
   Symptoms of low blood sugar usually appear very quickly. They include:
   - feeling shaky or light-headed
   - nervous or sweaty
   - angry or confused
   - headache
   - cannot think clearly
   - numbness or tingling around the lips
   - feeling weak
   - hungry
   - anxious or irritable
   - fast heart beat
   - blurry vision

   Symptoms of high blood sugar usually come on slowly. They include:
   - urinating more often
   - dry mouth
   - blurred vision
   - thirst
   - tiredness or weakness

2. a. **Assuming the problem is low blood sugar, what would you do to treat this problem?**

   This is how to treat low blood sugar:
   - check blood sugar with a meter
   - if the blood sugar number is less than 70 mg/dl, choose one serving of a sugar food/drink (15 grams of carbohydrate), such as:
     - ½ cup of fruit juice
     - ½ cup of regular (not diet) soft drink
     - 1 glass of milk
     - 4 teaspoons of sugar
     - 8 pieces of hard candy, such as Brachs or LifeSavers
     - 1 tablespoon honey
     - 3-4 glucose tablets

   High fat foods such as candy bars do not work well to treat low blood sugar.
   - re-check blood sugar 15 minutes after having the sugar food or drink - If the blood sugar number is still less than 70 mg/dl or the person is still having symptoms, they need to do the same treatment again
   - check blood sugar after another 15 minutes and again in one hour, to make sure the blood sugar has gone above 70 mg/dl and stayed there

   Eat a small snack, or a meal if it is time.
   Write down the date and time of the low blood sugar and note any possible reasons for it (such as skipped a meal, more activity, etc.)

(continued)

Balancing Blood Sugar (continued)

b. **If this had been high blood sugar, what would you do?**

These are actions to take when the blood sugar is more than 140:

- take medication if a dose was skipped
- eat planned meals
- be active
- drink plenty of sugar-free fluids
- check blood sugar more often

Contact health care provider for any of the following:

- blood sugar readings above the usual range for more than a week
- signs and symptoms of high blood sugar
- two blood sugars in a row over 300 mg/dl
- vomiting, confusion or signs and symptoms of severe dehydration

3. **What could you do to plan ahead and keep this from happening in the future?**

These are ways to prevent low blood sugar:

- learn when low blood sugar is most likely to happen
- know when and how your diabetes medicine works
- eat meals and snacks about the same time and amount each day
- do physical activity about the same time and amount each day
- take medicine as prescribed
- know what to do about your diabetes medicine if you need to delay or skip a meal
- always carry a sugar food or drink in your pocket, purse and/or car
- check blood sugar often
- wear identification that says you have diabetes

4. **What would you tell co-workers/family members/friends about this situation? Discuss your feelings about sharing this information.**

Tell co-workers, family members and friends about symptoms of low blood sugar and how they can help you. Teach them to give you a sugar food or drink even if you act angry or stubborn.

Sick Days

You wake with body aches and you have a fever. You are also feeling sick to your stomach. You usually eat breakfast but aren't sure you could keep any food down this morning. You checked your blood sugar and it is higher than usual.

1. **What would you do about eating when you are not feeling well?**

_____
_____
_____
_____
_____

2. **What would you do differently about your diabetes medicine or blood sugar checks when you are sick?**

_____
_____
_____
_____
_____

3. **When would you call your health care provider during an illness?**

_____
_____
_____
_____
_____

Sick Days

You wake with body aches and you have a fever. You are also feeling sick to your stomach. You usually eat breakfast but aren't sure you could keep any food down this morning. You checked your blood sugar and it is higher than usual.

1. **What would you do about eating when you are not feeling well?**

   To prevent dehydration, drink sugar-free fluids such as:
   - water
   - sugar-free Kool-Aid
   - diet soft drinks
   - club soda
   - unsweetened tea

   People need to drink fluids or eat soft foods that contain some sugar when they are not able to eat regular foods because of nausea or poor appetite. They need to have one serving of liquids or soft foods that contain sugar (15 grams of carbohydrate) every hour. Think about what sounds good to you—brainstorm choices.

2. **What would you do differently about your diabetes medicine or blood sugar checks when you are sick?**

   Sick day plans need to be made with your health care provider before illness occurs. These are ways to manage blood sugar when sick:
   - take usual diabetes medication
   - drink at least a small glass (8 ounces) of sugar-free fluids every hour to prevent dehydration
   - check blood sugar every 4 hours or more often
   - drink liquids and eat soft food if unable to eat the usual foods

3. **When would you call your health care provider during an illness?**

   People need to contact their health care provider when:
   - vomiting for more than one day
   - diarrhea more than 5 times or for longer than 6 hours
   - high (101.5F) or rising fever
   - trouble breathing or breathing fast
   - blood sugar over 300 mg/dl for more than one day
   - feeling drowsy or faint
   - abdominal pain or other unusual pain
   - sickness for more than 2 days

SESSION

10

Staying Healthy With Diabetes

DM-CC
Staying Healthy With Diabetes: Preventing and Treating Diabetes Complications

STATEMENT OF PURPOSE

This session provides information about the prevention and treatment of long-term complications that may occur with diabetes.

PREREQUISITES

It is recommended that each participant have basic knowledge about diabetes and self-care, from either personal experience or from attending previous sessions. Readiness to learn about complications should be carefully assessed before this content is presented.

LEARNING OBJECTIVES

Section 1: Overview

DM-CC1	State that controlling blood sugar lowers the chance of getting diabetes complications.
DM-CC2	Identify 2 or more factors that increase the risk of complications.
DM-CC3	State 2 or more long-term complications of diabetes.
DM-CCGS	State or write at least one behavior change that will help lower their risk for diabetes complications.
DM-CCGNS	Behavior goal not set (follow-up).
DM-CCGM	Behavior goal met (follow-up).
DM-CCGNM	Behavior goal unmet (follow-up).

Section 2: Complications

Retinopathy

DM-CC4	Define retinopathy in their own words.
DM-CC5	List 2 or more ways to prevent or delay eye disease.
DM-CC6	Discuss how eye disease is treated.

Heart Disease

DM-CC7	Define heart disease in their own words.
DM-CC8	List 2 or more ways to prevent or delay heart disease.
DM-CC9	Discuss how heart disease is treated.

Nephropathy

DM-CC10	Define nephropathy in their own words.
DM-CC11	List 2 or more ways to prevent or delay kidney disease.
DM-CC12	Discuss how kidney disease is treated.

Neuropathy

DM-CC13	Define neuropathy in their own words.
DM-CC14	List 2 or more ways to prevent or delay nerve damage.
DM-CC15	Discuss how nerve damage is treated (including pain management).

Sexual Health

DM-CC16	Discuss in simple terms how diabetes and high blood sugars may impact intimacy/ sexuality.
DM-CC17	List 2 or more ways to prevent or delay sexual health problems.
DM-CC18	Discuss how sexual health problems are treated.
DM-CC19	Discuss ways to talk about sexual concerns with significant others and members of the health care team.

Periodontal

DM-CC20	Define periodontal disease in their own words.
DM-CC21	List 2 or more ways to prevent or delay gum/teeth problems.
DM-CC22	Discuss how periodontal disease is treated.
DM-CCGS	State or write at least one behavior change that will help lower their risk for diabetes complications.
DM-CCGNS	Behavior goal not set (follow-up).
DM-CCGM	Behavior goal met (follow-up).
DM-CCGNM	Behavior goal unmet (follow-up).

Section 3: Summary

DM-CC23	Describe the need for all people with diabetes to get yearly tests, exams and immunizations.
DM-CC24	Identify their risk factors for diabetes complications.
DM-CCGS	State or write at least one behavior change that will help lower their risk for diabetes complications.
DM-CCGNS	Behavior goal not set (follow-up).
DM-CCGM	Behavior goal met (follow-up).
DM-CCGNM	Behavior goal unmet (follow-up).

CONTENT

Long-term complications and risk reduction

MATERIALS NEEDED

Visuals Provided

#1 *Blood Vessels in the Body*
#2 *Nerves in the Body*
#3 *Taking Care of Your Eyes*
#4 *Normal Eye*
#5 *Microaneurysms*
#6 *Proliferative Retinopathy*
#7 *Large Vessel Disease*
#8 *Taking Care of Your Heart*
#9 *Stay Young at Heart*
#10 *Blood Pressure Medicines*
#11 *Blood Fat Medicines*
#12 *Normal Kidney*
#13 *Taking Care of Your Kidneys*
#14 *Be Kind To Your Kidneys*
#15 *Nerve Damage: Feet, Pain, Stomach, Heart*
#16 *The Intimate Side of Diabetes*
#17 *Taking Care of Your Teeth*
#18 *My Health Status*
#19 *Changes I Can Make*

Additional

Take Charge of Your Diabetes or *Complication Series* (NIDDK)
Complications video
Laminated chart*: Progression of Diabetic Retinopathy*
Models of eye, heart, blood vessels, kidney, foot, teeth
Body apron
Glucose wands
Games, such as Jeopardy or Bingo
Information about local support groups and local resources for those with complications
Tobacco cessation resource list for area

METHOD OF PRESENTATION

Start by introducing yourself. Use a creative icebreaker. (See Introduction p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with

diabetes. Explain that the purpose of this session is to provide an overview of the long-term complications of diabetes so participants can take steps to prevent them, identify symptoms early and seek treatment if complications occur.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate discussion. Have a variety of teaching tools available based on participants' learning needs. Be creative and encourage interaction. Games can be played. A videotape may also be shown to introduce content if available.

When presenting this material it is important to be sensitive to the participants' responses to the information shared and discussed during this session. An individual session may be needed to address some participants' individual concerns.

CONTENT OUTLINE

Section 1: Overview

Objective	Content	Educator's Notes
CC1. State that controlling blood sugar lowers the chance of getting diabetes complications.	Over time, diabetes can cause changes in the body. These changes can lead to problems. These problems are called complications.	Ask participants to share feelings or experiences regarding diabetes complications. Visual #1: *Blood Vessels in the Body* and Visual #2: *Nerves in the Body*
	Some people may not get any complications, while others may get one or more than one.	People vary in the severity of the complications for them.
	Some of the complications may be prevented or delayed by: • keeping blood sugar in the target range • keeping blood pressure in the target range • keeping blood fats in the target range • seeing health care providers at regular times	High blood sugar for long periods of time can affect the large blood vessels in the brain, heart, legs and feet and the small blood vessels in the kidneys and eyes. This can lead to stroke, heart disease, kidney disease, eye disease and foot problems. High blood sugar for long periods of time can affect all parts of the nervous system. This can lead to loss of feeling in the feet, loss of strength in muscles and changes in digestion, bladder, heart and sexual function.

Objective	Content	Educator's Notes
CC1. (continued)	Some of the complications can be corrected or their progress slowed if they are found and treated early. A person has the best chance to stay healthy by keeping blood sugar near the target range.	Some people may show early signs of complications at the time they are diagnosed with diabetes. Ask, "What are target blood sugar ranges?" You might share the following with participants to stress this point: For every 1% decrease in the A1c, the chance for problems is lowered by a third. Refer participants to research studies, such as the *Diabetes Control and Complications Trial* (DCCT) and *United Kingdom Prospective Diabetes Study* (UKPDS), if they desire more information. (See Supplemental Readings for references.)
CC2. Identify 2 or more factors that increase the risk of complications.	In addition to high blood sugars, other risk factors for getting complications are: • heredity • tobacco use • alcohol use • being overweight • stress • high blood pressure	Risk factors are things that increase a person's chances for having problems. Tobacco use damages the blood vessels and increases the risk of stroke, heart disease, eye, kidney and nerve damage. Too much alcohol can damage blood vessels. Alcohol is high in calories and can lead to weight gain, making diabetes harder to control. Being overweight causes the heart to work harder. Increased body fat causes insulin resistance and raises blood sugar. Hormones released during stress can harm the body. Ask, "What are target blood pressure ranges?" High blood pressure damages the heart and blood vessels.

Objective	Content	Educator's Notes
CC2. (continued)	• high blood fats	Ask, "What are target blood fat ranges?" High blood fats build up in blood vessels and block the flow of blood. See below and other sessions for more specific information about these risk factors.
CC3. State 2 or more long-term complications of diabetes.	Complications of diabetes include: • eye damage (retinopathy) • heart attack and stroke (heart and blood vessel disease) • kidney disease (nephropathy) • nerve damage (neuropathy) • gum disease (periodontal disease) • amputations (nerve damage and blood vessel disease)	Ask, "What are some of the long-term complications of diabetes?" List responses. Ask, "Have you known anyone with complications from diabetes? What complications are you most worried about?" See below for more specific information about these complications.
CCGS. State or write at least one behavior change that will help lower their risk for diabetes complications.	Making changes in health habits to lower the risk for diabetes complications is easier when plans are broken down into small, easy-to-do steps. Think about making changes in one or more of these or other areas: • keep blood sugar, blood pressure and blood fats at target goal • avoid other risk factors • be more active • stay in close contact with the health care team • report symptoms right away • get recommended tests and exams	Visual #18: *My Health Status* and Visual #19: *Changes I Can Make* Using *My Health Status*, assist participants to write or state at least one thing they will do to lower their risk for diabetes complications, based on their identification of risk factors. See Session 3: *Making Healthy Changes.*

Section 2: Complications

Objective	Content	Educator's Notes
CC4. Define retinopathy in their own words.	Retinopathy means eye disease.	Ask, "How would you describe retinopathy?" List responses.
	People with diabetes have more chance of having eye disease, but there are things people with diabetes can do to prevent, delay and treat it.	Visual #3: *Taking Care of Your Eyes*
	Retinopathy can happen when blood sugar and blood pressure is high for long periods of time and affects the small blood vessels in the retina of the eye.	The retina is the thin layer in the back of the eye that receives images from the lens of the eye and sends pictures of what is seen to the brain. You may need to orient participants to parts of the eye before discussing changes with retinopathy. Visual #4: *Normal Eye* or model of eye
	Changes in the retina happen slowly and usually in this order: • blood vessels get weak spots • the weak spots change into small pouches • these pouches are fragile and can break easily, causing blood to leak in the retina • when these leaky areas heal, they form scars that block blood flow	Point out the blood vessels, optic nerve and macula (center of vision) on the retina. Visual #5: *Microaneurysms* The small pouches are called microaneurysms.
	• new blood vessels then form in the retina and in the jelly that fills the eye, to get blood around the scarred areas	Visual #6: *Proliferative Retinopathy* The forming of new blood vessels is called proliferative retinopathy. Additional materials such as a laminated chart: *Progression of Diabetic Retinopathy* may be used. Use visuals as discussion guides to highlight content appropriate for participants.

Objective	Content	Educator's Notes
CC4. (continued)	When there is scarring and when new blood vessels are forming, people will have changes in their eyesight.	Stress the importance of annual eye exams because people may not notice any changes in their eyesight until this begins.
	Changes may include:	See a health care provider right away if any changes are noticed.
	• blurred eyesight	Visual #3: *Taking Care of Your Eyes* Blurred vision can also happen with high blood sugar. This blurring will go away when the blood sugar is stable. Blood sugar needs to be stable for 6-8 weeks before testing for glasses.
	• clouding of vision	Cloudy vision can also happen with cataracts.
	• color is less clear • hard to see when driving at night • black floating spots • seems like looking through a pool of blood or a spider web	If these happen, or if there are streaks or a black curtain over the eye, cobwebs, flashing lights or sudden sight loss, going to the emergency room right away is necessary.
	The blood in the retina and the changes in eyesight may get all better or somewhat better later on.	
	If bleeding happens in or near the macula, there can be severe vision loss.	Diabetes is the leading cause of new blindness in the U.S.
	If retinopathy is not treated, it may lead to total blindness.	
	Cataracts and glaucoma also happen more often in people with diabetes.	A cataract (cloudy lens of the eye) causes cloudy vision. Glaucoma (high pressure in the eye) can cause vision loss. An eye doctor can check for these problems and treat them.

Objective	Content	Educator's Notes
CC5. List 2 or more ways to prevent or delay eye disease.	There are many things people can do to prevent or delay eye disease. They include:	Ask participants if they have any ideas for preventing eye disease. List responses. Visual #3: *Taking Care of Your Eyes*
	• keep blood sugar in the target range • keep blood pressure in the target range	Provide practical, specific tips to control blood sugar and blood pressure and focus on small steps in changing lifestyle habits that lead to bigger changes they can stick with. Target ranges for blood sugar and blood pressure are covered in Sessions 7 and 8.
	• get a yearly eye exam	A dilated eye exam or retinal photo is needed to tell if there is retinopathy. There may not be any vision changes in retinopathy. The eye doctor will look for changes in the retina in the back of the eyes. This exam needs to be done with the pupils dilated—eye drops are placed in the eyes to see the retina better.
	• tell the health care provider about any vision or eye changes	Emphasize the importance of tests, exams and visits for early detection and treatment of eye disease.
	• stop tobacco use	Tobacco use damages blood vessels in the eye. Make appropriate referrals and appointments. Distribute local *resource list.*
CC6. Discuss how eye disease is treated.	Retinopathy can only be treated by laser therapy. Laser therapy is usually done over 3 or 4 clinic visits. During treatments the laser directs a finely focused beam of light on the retina. This slows or	Remind participants about risk factors and ways to prevent or delay retinopathy. See Objectives CC-2 and CC-5. Some people find laser therapy uncomfortable.

Objective	Content	Educator's Notes
CC6. (continued)	prevents the new abnormal blood vessels from forming or causes them to disappear.	The laser can also be used to destroy nests of new blood vessels. This is very important if they are bleeding. Laser treatment may not improve vision.
CC7. Define heart disease in their own words.	Heart disease includes chest pain (angina) and heart attack (MI). People with diabetes have more chance of having heart disease, but there are things people can do to prevent, delay or treat it. Heart disease can occur when blood sugar, blood pressure and blood fats are high for long periods of time. Changes in blood vessels happen when blood fats stick to the vessel walls. The vessels become stiff and less elastic and the inside of the vessel is smaller. This is called arteriosclerosis or hardening of the arteries. When this happens in the blood vessels of the heart, it may lead to angina (chest pains) or heart attacks.	Ask, "How would you describe heart disease?" List responses. Visual #7: *Large Vessel Disease* or model of blood vessels with fat build-up Target goals for blood sugar, blood pressure and blood fats are covered in Sessions 7 and 8. Increased stress, tobacco use and a family history of heart disease also increase a person's chances of having heart disease. Heart disease is 2-4 times more common in men with diabetes and 4-8 times more common in women with diabetes. Heart disease is the most common type of arteriosclerosis. Arteriosclerosis can affect other parts of the body: • when arteriosclerosis happens in brain blood vessels, it can lead to strokes - strokes are 2-4 times more common in people with diabetes • when it happens in leg blood vessels, there may be pain when walking and more chance of infection

Objective	Content	Educator's Notes
CC8. List 2 or more ways to prevent or delay heart disease.	There are many things people can do to prevent or delay heart disease. They include:	Visual #8: *Taking Care of Your Heart* and Visual #9: *Stay Young at Heart* Ask participants if they have any ideas for preventing heart disease. List responses.
	• keep blood sugar, blood pressure and blood fats at target goal • stay at a healthy weight • be more active	Target goals for blood sugar, blood pressure and blood fats are covered in Sessions 7 and 8. Provide practical, specific tips to control blood sugar, blood pressure, blood fats, etc. Focus on small steps in changing lifestyle habits that lead to bigger changes they can stick with.
	• see health care provider at least every 6 months • take aspirin when prescribed • stop tobacco use • manage stress	Stress the importance of working with the health care provider. Refer to a dietitian as appropriate. Emphasize the importance of tests, exams and visits for early detection and treatment of heart disease.
	• report symptoms of possible heart problems right away - symptoms include chest pain, severe dizziness, fainting and swollen ankles or legs	Tests such as EKGs can be done at clinic visits to find problems early. Emphasize the importance of recognizing symptoms and getting care right away.
CC9. Discuss how heart disease is treated.	Treatment of heart disease is the same for people with and without diabetes. Treatment includes: • making healthy food choices • being more active • staying at a healthy weight • managing stress • taking medicine as prescribed • surgery in some cases • stopping tobacco use	Treatment depends on the severity of heart disease. Visual #10: *Blood Pressure Medicines* and Visual #11: *Blood Fat Medicines*

Objective	Content	Educator's Notes
CC9. (continued)		Review medications used locally for high blood pressure, high blood fats and heart function. Risk factors are covered in Objective CC-2.
CC10. Define nephropathy in their own words.	Nephropathy means kidney disease. People with diabetes have more chance of kidney disease. There are things people with diabetes can do to prevent, delay or treat it. Nephropathy can occur when blood sugar and blood pressure are high for long periods of time and affect the small blood vessels in the kidney.	Ask, "How would you describe kidney disease?" List responses. Visual #4: *Be Kind To Your Kidneys* and Visual #12: *Normal Kidney,* model of kidney or *body apron* Small blood vessels in the kidney filter blood so that needed substances are kept in the body and waste products (including water) are passed out of the body as urine. High blood sugar and high blood pressure may cause the small blood vessels in the kidneys to get thick and the kidneys do not filter as they should. Substances such as protein are lost in the urine and waste products build up in the blood.
CC11. List 2 or more ways to prevent or delay kidney disease.	There are many things people can do to prevent or delay kidney disease. They include: • keep blood sugar at target goal • keep blood pressure at target goal	Visual #13: *Taking Care of Your Kidneys* Ask participants if they have any ideas for preventing kidney disease. List responses. Provide practical, specific tips to control blood sugar and blood pressure. Focus on small steps in changing lifestyle habits that lead to bigger changes they can stick with. Target goals for blood sugar and blood pressure are covered in Sessions 7 and 8.

Objective	Content	Educator's Notes
CC11. (continued)	• check how well kidneys are working with a blood test and urine test every year	There are 3 routine tests to check kidney function: • protein in the urine is checked with a urine test • microalbuminuria screening is done once a year with a urine test to identify early changes in kidney function and assess need for ACE/ARB medicines • creatinine is checked yearly with a blood test
	• take medicines for kidney protection	A group of medicines called angiotensin-converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARB) can delay the progression of kidney disease. They work by reducing the protein in the urine. These medicines are also used to treat high blood pressure. Even in people without high blood pressure, protein in the urine can be reduced with ACE/ARB medicines. List ACE/ARBs used in local program. Visual #10: *Blood Pressure Medicines*
	• see a health care provider at least every 6 months	Stress the importance of working with the health care provider. Emphasize the importance of tests, exams and visits for early detection and treatment of kidney disease. People may not have symptoms in early kidney disease.
	• avoid medicines that might harm the kidneys	Medicines that might harm the kidneys include some antibiotics and ASA or NSAIDs in high doses. Contrast dyes used in some tests might also harm the kidneys and need to be used with caution.
	• stop tobacco use	
	• treat bladder infections right away	Symptoms of bladder infections include urgency, pain, burning, frequency and

Objective	Content	Educator's Notes
CC11. (continued)		blood in the urine. Some people have no symptoms when they have a bladder infection. Visual #14: *Be Kind To Your Kidneys*
CC12. Discuss how kidney disease is treated.	Treatment for kidney disease may include: • medicines • eating behavior changes: - eating less protein - eating less salt - limiting fluids If kidney disease becomes worse, the kidneys may not work anymore. If this happens, treatment choices are: • hemodialysis (a machine is used to filter blood 2-3 times a week) • peritoneal dialysis (fluid is put into and then drained out of the abdomen where the peritoneum is used as a filter) • kidney transplantation	Medicines may include: • ACE/ARB for kidney protection in early stages • medicine for high blood pressure • medicines to treat problems that occur with kidney changes It is important to see a dietitian to review nutrition needs. Visual #14: *Be Kind To Your Kidneys* Ask participants to share their feelings about dialysis.
CC13. Define neuropathy in their own words.	Neuropathy means nerve damage. People with diabetes have more chance of having neuropathy. There are things people with diabetes can do to prevent, delay or treat it. Types of neuropathy are:	Ask, "How would you describe neuropathy?" List responses. Visual #15: *Nerve Damage: Feet, Pain, Stomach, Heart*

Objective	Content	Educator's Notes
CC13. (continued)	• sensory (damage to sensory nerves causes pain or loss of feeling) • motor (damage to motor nerves causes muscle weakness) • autonomic (damage to autonomic nerves causes changes in the way the body controls certain functions, including blood pressure, digestion, bladder function and sexual function) People often have more than one type of neuropathy at the same time. The symptoms people feel depend on the type of neuropathy and how much damage there is. Symptoms include: • burning in the feet • loss of feeling in the feet • loss of bladder control • dizziness when standing up • constipation and diarrhea • feeling full after eating only a small amount • nausea and vomiting • problems with sexual function	Neuropathy most often affects the nerves to the legs, feet and hands. Most people will feel numbness or tingling, pain and burning, less sensation and/or sometimes muscle weakness. Nerve damage can lead to severe pain. Symptoms may come and go and tend to increase with high blood sugar.
CC14. List 2 or more ways to prevent or delay nerve damage.	There are many things people can do to prevent /delay nerve damage. They include: • keeping blood sugar at target goal • reporting symptoms early • seeing health care provider at least every 6 months • drinking less alcohol • stopping tobacco use	Ask participants if they have any ideas for preventing nerve damage. List responses. Provide practical, specific tips to control blood sugar and focus on small steps in changing lifestyle habits that lead to bigger changes they can stick with.

Objective	Content	Educator's Notes
CC15. Discuss how nerve damage is treated (including pain management).	Treatment of nerve damage may include: • keeping blood sugar at target goal • pain management including: - walking to decrease leg pains - relaxation exercises - hypnosis - biofeedback training - transcutaneous nerve stimulation (TENS) unit - acupressure - acupuncture • pain medicines • skin creams	Pain clinics are available in some areas. A TENS unit is a battery-powered device that sends an electric current to the painful areas. The current blocks the pain message from going to the brain, which decreases the pain. Narcotics are not generally used for long-term treatment. Medications may include NSAIDs, tramadol and anti-depressant and anti-seizure medications. Discuss creams used for pain, such as Capsaicin, available locally.
CC16. Discuss in simple terms how diabetes and high blood sugars may impact intimacy/sexuality.	Diabetes brings many changes into a person's life. The feelings these changes bring about may affect how a person responds to his or her partner. High and low blood sugar may affect how a person responds to his or her partner. • high blood sugar may make a person too tired for sex or may cause temporary erectile dysfunction • low blood sugar may make it hard to become sexually excited or reach orgasm When blood sugar is high for long periods of time it may damage the	Ask, "Have you heard about this before? Do you have any questions?" Discuss according to the interest and needs of the participants. Visual #16: *The Intimate Side of Diabetes*

Objective	Content	Educator's Notes
CC16. (continued)	nerves that control sexual function. • men may have erectile dysfunction - this means they are not able to keep an erection • women may have weaker orgasms or none at all - women may also have painful intercourse due to genital infections or lack of lubrication	This means they are not able to penetrate the vagina.
CC17. List 2 or more ways to prevent or delay sexual health problems.	Some things people can do to prevent or delay sexual health problems are: • keep blood sugar at target goal • report symptoms early • see a health care provider at least every 6 months • drink less alcohol • stop tobacco use	Ask participants if they have any ideas for preventing sexual health problems. List responses. Provide practical, specific tips to control blood sugar. Focus on small steps in changing lifestyle habits that lead to bigger changes they can stick with.
CC18. Discuss how sexual health problems are treated.	There are medical treatments available for sexual health problems if needed. Treatment may include: • keeping blood sugar at target goal • counseling • medicine changes • hormone regulation • penile implants • Viagra • treating vaginal infections and lack of vaginal lubrication	
CC19. Discuss ways to talk about sexual concerns with significant others and members of the health care team.	Sexuality is a natural part of life. It brings pleasure, closeness and a special communication between two people. If a person is having problems, it is important to seek help.	Acknowledge that talking about sexual concerns may be difficult for participants.

Objective	Content	Educator's Notes
CC19. (continued)	People need to talk with a health care provider or someone they trust.	Discuss or role-play options for talking about sexual health problems depending on interests of participants. Provide local *resource list.*
CC20. Define periodontal disease in their own words.	Periodontal disease means gum disease. People with diabetes have more chance of having gum disease. There are things people with diabetes can do to prevent, delay or treat it. High blood sugar can cause gum disease. Changes in the gums/teeth happen slowly and usually in this order: • plaque builds up on teeth, between the teeth and under the gums • plaque build-up can destroy gums and bone • the gums pull away from the teeth and pockets form around the teeth • the disease spreads into the bone that supports the teeth - once the bone support is gone, the tooth will loosen and fall out Symptoms of gum disease include: • gums bleed when a person brushes their teeth or eats • bad breath • gums are soft, swollen, red or hurt when touched • gums are pulled away from their teeth • pus comes out from gums when they are pressed with fingers • teeth are loose	Ask, " How would you define gum disease?" List responses. Visual #17: *Taking Care of Your Teeth* and models of teeth and gums People with diabetes have more chance of losing their teeth. Everyone has bacteria in their mouth. If these bacteria are not removed (by brushing, rinsing and flossing) they form plaque. If plaque builds up, it inflames the gums. This early change is called gingivitis. People with dentures may notice a change in how they fit.

Objective	Content	Educator's Notes
CC20. (continued)	• teeth have shifted position	
CC21. List 2 or more ways to prevent or delay gum/ teeth problems.	Some things people can do to prevent or delay gum disease are: • keep blood sugar at target goal • prevent plaque build-up by brushing teeth 2 times a day or more, 5 minutes each time • talk with the dental team about other ways to prevent plaque build-up • use dental floss daily • see a dentist at least once a year and more often if needed	Ask participants if they have any ideas for preventing gum disease. List responses. Provide practical, specific tips to control blood sugar. Focus on small steps in changing lifestyle habits that lead to bigger changes they can stick with. Visual #17: *Taking Care of Your Teeth* People with dentures still need to see a dentist every year.
CC22. Discuss how periodontal disease is treated.	There are medical treatments available for gum disease if needed. Treatment may include: • keeping blood sugar at target goal • medicines • special teeth and gum care, including special procedures for cleaning teeth • seeing a dentist often	Some people may need to take antibiotics for gum disease. Provide local *resource list* for care of teeth and gums.
CCGS. State or write at least one behavior change that will help lower their risk for diabetes complications.	Making changes in health habits to lower the risk for diabetes complications is easier when plans are broken down into small, easy-to-do steps. Think about making changes in one or more of these or other areas: • keep blood sugar, blood pressure and blood fats at target goal	Visual #18: *My Health Status* and Visual #19: *Changes I Can Make* Using *My Health Status*, assist participants to write or state at least one thing they will do to lower their risk for diabetes complications, based on their identification of risk factors. See Session 3: *Making Healthy Changes*

Objective	Content	Educator's Notes
CCGS. (continued)	• avoid other risk factors • be more active • stay in close contact with the health care team • report symptoms right away • get recommended tests and exams	

Section 3: Summary

Objective	Content	Educator's Notes
CC23. Describe the need for all people with diabetes to get yearly tests, exams and immunizations.	Most of the long-term problems of diabetes can be treated better if they are found early. Regular examinations are needed, especially of the eyes, kidneys, feet and heart, to check for problems. The tests needed every year include: • urine test to check for protein • blood test to check blood fat level (lipid profile) and kidney function (creatinine) The examinations needed every year include: • routine physical • eye exam • dental exam • foot exam to check feeling in the feet • breast and pelvic exam (women) • mammogram (women) • rectal exam Immunizations needed include: • flu vaccine every year	Ask participants to share past experiences with getting needed tests and exams. Emphasize the importance of asking their health care provider for these. Visual #18: *My Health Status* Assist participants to complete *My Health Status* and initiate appropriate referrals as needed. Other tests may be needed for general health screening.

Objective	Content	Educator's Notes
CC23. (continued)	• pneumonia vaccine at least once • tetanus vaccine every 10 years • TB skin test once after diagnosis	Vaccinate at diagnosis. All people 65 years or older need to be revaccinated if it has been 5 or more years since their first vaccination and were under 65 when first dose was given. Revaccination 5 years after first dose is considered for people at high risk for infection. . Hepatitis B vaccine is also needed for people with renal disease.
CC24. Identify their risk factors for diabetes complications.	Risk factors for complications that people can control include: • high blood sugar • high blood pressure • high blood fats • tobacco use • alcohol use • being overweight • stress	Ask, "What are your risk factors for diabetes complications?" Provide local *resource list* with information on smoking cessation, alcohol counseling, weight loss groups, stress management, support groups, etc.
CCGS. State or write at least one behavior change that will help lower their risk for diabetes complications.	Making changes in health habits to lower the risk for diabetes complications is easier when plans are broken down into small, easy-to-do steps. Think about making changes in one or more of these or other areas: • keep blood sugar, blood pressure and blood fats at target goal • avoid other risk factors • be more active • stay in close contact with the health care team • report symptoms right away • get recommended tests and exams	Visual #18: *My Health Status* and Visual #19: *Changes I Can Make* Using *My Health Status*, assist participants to write or state at least one thing they will do to lower their risk for diabetes complications, based on their identification of risk factors. See Session 3: *Making Healthy Changes.*

SKILLS CHECKLIST

Each participant will be able to identify their risk factors for diabetes complications and identify at least one thing they can do to lower their risk for diabetes complications.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by identifying at least one change to make for lowering risk of diabetes complications. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes*.

Staying Healthy

You are at the clinic for your regular 3-month diabetes care appointment. Your health care provider tells you that it is time for your yearly check-up. He asks you to schedule a longer appointment for your next visit so you can get several things done to meet "standards of care" and stay healthy with diabetes.

1. **What does the health care provider mean by "standards of care"? Why is it important for you to "meet them"?**

2. **What are some of the tests/exams/immunizations you might need at your next visit if you have not had them done in the past year? What are some questions to ask your health care provider about them?**

3. **How would you make sure you have your tests/exams/immunizations every year?**

Staying Healthy

You are at the clinic for your regular 3-month diabetes care appointment. Your health care provider tells you that it is time for your yearly check-up. He asks you to schedule a longer appointment for your next visit so you can get several things done to meet "standards of care" and stay healthy with diabetes.

1. **What does the health care provider mean by "standards of care"? Why is it important for you to "meet them"?**

   Standards of care are tests/exams/immunizations that diabetes experts agree need to be done at regular times in order to prevent/delay diabetes complications and/or find diabetes complications early so treatment can be started right away. It is important to get them done or "meet the standards" to give yourself the best chance to stay healthy with diabetes.

2. **What are some of the tests/exams/immunizations you might need at your next visit if you have not had them done in the past year? What are some questions to ask your health care provider about them?**

   Most of the long-term problems of diabetes can be treated better if they are found early. Regular examinations are needed, especially of the eyes, kidneys, feet and heart, to check for problems.

   The tests needed every year include:
   - urine test to check for protein
   - blood test to check blood fat level (lipid profile) and kidney function (creatinine)

   The examinations needed every year include:
   - routine physical
   - eye exam
   - dental exam
   - foot exam to check feeling in the feet
   - breast and pelvic exam (women)
   - mammogram (women)
   - rectal exam

   Immunizations needed include:
   - flu vaccine every year
   - pneumonia vaccine at diagnosis and again at age 65, if it has been 5 years or more since first dose
   - tetanus every 10 years
   - TB skin test once after diagnosis

3. **How would you make sure you have your tests/exams/immunizations every year?**

   Some of the ways to make sure tests/exams/immunizations are done on schedule include:
   - carry a record of test/exams/immunizations on a wallet card you carry—this can remind you of what is needed and when
   - schedule your yearly tests and exams on the same day each year
   - ask your health care provider at every visit if you are up-to-date with your test/exams/immunizations

SESSION

11

Taking Care of Your Feet

DM-FTC
Taking Care of Your Feet

STATEMENT OF PURPOSE

This session provides participants with diabetes foot care information. The intent of the session is to give participants the skills needed to avoid problems with their feet.

PREREQUISITES

None

LEARNING OBJECTIVES

DM-FTC1	State one or more reasons to check feet every day.
DM-FTC2	Identify 2 or more risk factors for foot problems.
DM-FTC3	List 2 or more daily self-care actions to prevent foot problems.
DM-FTC4	Describe how to cut toenails correctly.
DM-FTC5	Describe 2 or more things to look for when choosing proper footwear.
DM-FTC6	State 2 or more signs and symptoms of foot and skin infections.
DM-FTC7	State when to contact the diabetes team about foot problems and infections.
DM-FTC8	State the reason for routine foot exams at each clinic visit and yearly foot screening.
DM-FTCGS	Demonstrate a personal foot exam and state a personal foot care plan.
DM-FTCGNS	Behavior goal not set (follow-up).
DM-FTCGM	Behavior goal met (follow-up).
DM-FTCGNM	Behavior goal unmet (follow-up).

CONTENT

Foot care

MATERIALS NEEDED

Visuals

#1 *Taking Care of Your Feet*
#2 *Cutting Your Toenails*
#3 *Footwear for People With Diabetes*
#4 *Look at Your Feet*
#5 *Changes I Can Make*
#6 *Treat Your Feet in a Good Way*

Additional

Video on foot care, foot self-inspection
Local *resource list* for smoking cessation
Local *resource list* for alcohol counseling
Local *resource list* for foot care
Hand mirror
Samples of foot lotions and foot care instruments
Samples of products harmful to the feet
Sensory monofilament
Foot model to show nerves, blood vessels, etc.
Samples of footwear

METHOD OF PRESENTATION

Start by introducing yourself. Use a creative ice breaker. (See Introduction p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves and how they live with diabetes. Explain that the purposes of this session are to provide information about the importance of foot care and healthy foot care habits and to develop a personal foot care plan.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate discussion. Have a variety of teaching tools available based on participants' learning needs. Be creative and encourage interaction. A videotape may be shown to introduce content if available. If participants are comfortable, ask them to remove their shoes and socks. This helps participants practice foot care skills and allows interaction and feedback.

CONTENT OUTLINE

Objective	Content	Educator's Notes
FTC1. State one or more reasons to check feet every day.	People with diabetes need to check their feet every day because: • they may see problems that they might not be able to feel • they may find problems and get help for them early • they may prevent amputations The diabetes team can also help check feet. Ask for a foot check at every visit.	Visual #1: *Taking Care of Your Feet* People with diabetes may be less sensitive to heat, cold and pain. They can have skin and foot problems and not feel them. People with diabetes may have less blood flow to the legs and feet. Small cuts heal slowly or not at all. Stress the importance of taking shoes and socks off when in the health care provider's examination room.
FTC2. Identify 2 or more risk factors for foot problems.	Risk factors are things that increase a person's chance of having problems. Risk factors for foot problems include: • high blood sugar for many years • loss of feeling in the feet • decreased blood flow to feet • foot ulcers in the past • change in the shape of toes or feet • toe or foot amputations in the past • decreased vision or decreased flexibility (cannot see feet)	Ask participants if they have any ideas for preventing foot problems. List responses. Having high blood sugar for many years can damage nerves and blood vessels. Some people cannot feel touch, heat, cold or pain. Health care providers do yearly foot exams to help identify degree of risk. See Objective FTC-8. A mirror can be placed on the floor and the foot held over the mirror to look at the feet.

Objective	Content	Educator's Notes
FTC2. (continued)		A family member can check the feet for someone who cannot see them.
	• tobacco use	Tobacco use can increase risk for small blood vessel damage.
	• excessive alcohol use • use of some illegal drugs • shoes that do not fit well	Worn out shoes, shoes with pointed toes and shoes that are too tight can cause too much pressure on one part of the foot. This can lead to foot injury and ulcers.
	• foot injury • unclean feet	Foot injury includes pressure, friction, blisters and other trauma.
	The more risk factors a person has, the more chance they will develop a problem with their feet.	
FTC3. List 2 or more daily self-care actions to prevent foot problems.	People with diabetes can prevent foot problems. Here are some things a person can do:	Ask, "What do you do now to take care of your feet?" List responses and discuss.
	• keep blood sugar at target goal	Review target blood sugar goals.
	• wash feet daily with mild soap and warm water, gently pat feet dry and dry well between the toes - this can be done in a bath, shower or quick soak	Test the water first with your wrist or elbow to prevent burning your feet. Remind participants that soaking the feet dries the skin.
	• apply lotion or foot cream to soles of feet	Use lotion without perfume or alcohol in it. Avoid lotion between toes.
	• avoid things (risks) that make foot problems more likely	See Objective FTC-2 for risks.
	• avoid tobacco • drink less alcohol	Provide information on tobacco cessation and alcohol counseling.
	• look at feet every day	See Objective FTC-GS for foot inspection.

Objective	Content	Educator's Notes
FTC3. (continued)		It is important to look at feet after physical activity.
	• see a health care provider right away for foot problems	See Objective FTC-7 for when to contact a health care provider.
	• avoid going barefoot inside or outside the house	Keep slippers next to the bed.
	• wear shoes that fit well	See Objective FTC-5 for footwear.
	• use clean socks every day	Use socks to keep feet warm. Avoid hot water bottles, heating pads or microwave warmers or sitting with feet close to wood stoves or fire, which can burn feet.
	• avoid products that are harmful to the feet	Products such as wart removers, iodine and corn pads can lead to burns and skin breakdown. Show samples of products.
	• care for calluses correctly	See Objective FTC-GS for callus care.
	• cut toenails correctly	See Objective FTC-4 for toenail cutting.
FTC4. Describe how to cut toenails correctly.	People with diabetes need to cut their toenails carefully.	Ask participants to share any problems they have had with cutting toenails. List responses.
	Here are some tips:	Visual #2: *Cutting Your Toenails*
	• cut toenails to follow the shape of the toe, even with the end of the toe	Use a nail clipper to cut toenails. Do not use razors, knives, etc. Nails cut straight across can injure the toes next to them.
	• file rough ends and edges • do not cut toenails too short • avoid digging under the nail with sharp, pointed objects	An emery board can be used to file nails.
	• cut nails after a bath when they are clean, soft and easier to trim	Using lotion or baby oil on nails will make them easier to cut.

Objective	Content	Educator's Notes
FTC4. (continued)	• use a good light when cutting nails Have a foot doctor (or foot care specialist at clinic) cut toenails if: • they are too thick • they split or crack when they are cut • the person cannot see to cut toenails A person with loss of feeling in their feet needs to check with their health care provider about cutting their own nails.	 A foot doctor is also called a podiatrist. Provide information on local foot care resources.
FTC5. Describe 2 or more things to look for when choosing proper footwear.	Proper footwear supports, protects and covers the feet. People with diabetes need to choose shoes: • made of leather or canvas • with laces or straps • with a smooth lining on the inside • with a round toe box • with a low heel • with a firm heel • with soft insoles	Visual #3: *Footwear for People with Diabetes* Ask, "What kind of shoes works best for you?" List responses. These allow the foot to "breathe." Avoid plastic or rubber shoes. Shoes with laces or straps provide better support than a slip-on shoe such as a loafer. Avoid shoes with rough seams. Seams can cause pressure and sores on skin. These shoes provide more room than shoes with a pointed toe, so there is less pressure on toes. Avoid shoes with a heel higher than 1¼ inches. Firm heels provide protection and support. Insoles that can be removed are best.

Objective	Content	Educator's Notes
FTC5. (continued)	• that fit well	Shoes need to be chosen for their fit, not their size. Shoes need to be long enough and deep enough, so that a person can wiggle their toes. Have participants trace their shoes and their feet without shoes, on pieces of heavy paper. Compare the sizes of their feet and shoe tracings. If their foot tracing bends when put in their shoe, the shoe is too small for their feet.
	Avoid wearing shoes that may cause problems for the feet for long periods of time, such as sandals, moccasins and cowboy boots.	Some cowboy boots without pointed toes may be okay. Discuss situations where people might need to wear cowboy boots, sandals or moccasins. Explore things they could do to help them do this safely.
	Some people who already have problems with their feet may need to buy special shoes.	
	People with diabetes need to buy shoes carefully.	
	Here are some tips:	
	• shop for shoes in the late afternoon or evening	Your feet are more swollen at the end of the day than when you first get up.
	• ask the salesperson for shoes that will help people with diabetes	This may be appropriate in shoe stores where special shoes are available.
	• have the shoe salesperson measure both feet	
	• test the shoe fit by wearing them at least 5 minutes in the store	If shoes hurt when worn in the store, do not buy them.
	• break new shoes in slowly by wearing them for only 1 or 2 hours a day at first	Never wear new shoes all day.

Objective	Content	Educator's Notes
FTC5. (continued)	• check feet for redness and irritation	If the shoes are causing redness or irritation, return them as soon as possible.
	• if a person has lost feeling in their feet, a pattern cut from heavy paper can be put into shoes when shopping to help ensure fit	Demonstrate.
	Here are other things that are important to do with shoes and socks:	
	• shake out shoes and feel inside them with the hand to check for cracks, tears, rocks, nails or sand	Demonstrate and ask participants to do this along with you. Caution participants that they may not be able to feel objects in their shoes if they have lost feeling in their feet.
	• check the heels and soles of shoes for signs of wear	Ask a health care provider to help with deciding if shoes are worn or damaged. Replace or repair shoes if they are worn out.
	• never wear wet or damp shoes	Treat washed shoes like new shoes since they may shrink or change shape. If a person's feet sweat a lot, shoes may need to be changed often.
	• wear socks with shoes	Clean cotton or wool socks are best.
	• do not wear socks that are too tight around the top	This can decrease blood flow.
	• do not wear socks that are mended	This can cause sores.
FTC6. State 2 or more signs and symptoms of foot and skin infections.	Look for signs and symptoms of infection every day. They are: • redness • swelling • warm to touch • pain or soreness • drainage from a blister, cut or sore	Ask, "What are signs and symptoms of infection?" List responses. Blood or drainage might be noticed on socks.

Objective	Content	Educator's Notes
FTC6. (continued)	• foul odor • athlete's foot • high blood sugar	
	High blood sugar can make it harder for the infection to heal and can make the infection more serious.	Point out that high blood sugar may be an early sign of infection. High blood sugar slows the work of the white blood cells which fight infection, so a small infection can spread faster or become harder to treat, when blood sugar is high.
FTC7. State when to contact the diabetes team about foot problems and infections.	People with diabetes need to call their health care provider right away if: • they have signs or symptoms of infection	Provide information on local resources for foot care. See Objective FTC-6. If feet are hurt, stay off them as much as possible.
	• they have a cut	See a health care provider right away if there is a large cut, deep puncture cut or dirty cut. In some cases, health care providers may recommend that a person care for small cuts that are not deep at home as follows: • use mild soap and water to clean cuts and scrapes • if a bandage is needed, wrap sterile gauze loosely around the cut area or use a Band-Aid bandage • remove the bandage carefully and check the cut every day • call a health care provider right away if it is not healing in 2 days or it is getting worse Talk to a health care provider about a plan for caring for cuts.
	• they have a blister caused by a shoe or sock rubbing that has opened	It is best to let blisters heal by themselves. If a blister is larger than a small pea or has opened, see a health

Objective	Content	Educator's Notes
FTC7. (continued)	It is important to get treatment right away and not wait for an injury to heal on its own.	care provider.
FTC8. State the reason for routine foot exams at each clinic visit and yearly foot screening.	Foot exams at each clinic visit are needed because: • the health care provider may find a problem the person did not know about - medical care can be started early • changes in feeling in the feet may be found early	Foot exams at each clinic visit include: • inspection • pulse check • skin temperature check Remember to take shoes and socks off at every visit to the health care provider. Ask for an exam if the provider forgets to look at the feet. A referral to a foot doctor may be needed if there are any problems or changes.
	A yearly foot exam at the clinic is needed. The health care provider can check for: • loss of feeling in the feet • change in the shape of feet or toes • change in the blood flow to the feet • other risk factors Action can be taken to protect feet if someone has these things.	Yearly foot screening includes: • inspection • sensory monofilament and other tests • pulse check • observation of pressure points with weight bearing • possible dopler studies Show SW 5.07 monofilament and demonstrate testing. A referral to a foot doctor may be needed for special shoes. Provide information about local resources for foot care.
FTCG5. Demonstrate a personal foot exam and state a personal foot care plan.	A personal foot exam includes the following: • look at feet after a shower or bath • look at the bottoms, tops, sides and between the toes	Visual #4: *Look at Your Feet* Demonstrate a personal foot exam and ask participants to do it along with you on their feet. Show examples of tools helpful for foot examination and care. The bottom of the big toe and the soles get the most wear from walking. Show

Objective	Content	Educator's Notes
FTCGS. (continued)		the 6 areas to check for pressure. Use a mirror to look at the bottoms of the feet if needed.
	• look between the toes for cracks, peeling skin, blisters or a change in color	Breaks in the skin can lead to infection. It is important to look for infection because a person may not be able to feel the pain or soreness of an infection.
	• look for corns, calluses, blisters or redness - some corns and calluses can be treated at home, many need help from a foot care specialist to reduce them	Corns and calluses can be rubbed lightly each day with a pumice stone. Use the pumice stone carefully so skin is not damaged. Avoid harsh corn removers or cutting the callus with a knife or razor blade. Padding the corn helps to relieve pressure. These may be signs that a person's shoes are rubbing and do not fit well. A change in shoe style or wearing different shoes may be needed. Remind participants that proper footwear protects their feet.
	• look for ingrown toenails	Soft skin around the nail can grow over the edge of the nail and the growing nail injures the skin.
	• check the entire foot for dryness, especially around the heels	If there is dry skin, rub on cream or lotion. Do not put lotion between toes. If the feet sweat a lot, dust on talcum or baby powder. Refer participants to local resources as appropriate for any foot problems noted during inspection.
	Making changes in health habits, such as better personal foot care, is easier when plans are broken down into small, easy-to-do steps.	Visual #5: *Changes I Can Make* Ask participants to think about what they already do each day to protect their feet and what could they add.

Objective	Content	Educator's Notes
FTCGS. (continued)		Ask participants to state or write their personal foot care plan. See Session 3: *Making Healthy Changes.* Distribute Visual #6: *Treat Your Feet in a Good Way*

SKILLS CHECKLIST

Each participant will be able to demonstrate a personal foot exam and state or write a personal foot care plan.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by the development and implementation of their personal foot care plan and a demonstration of a personal foot exam. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes.*

New Shoes

You bought a new pair of shoes 2 days ago. You decided to wear them for the past 2 days because they felt fine and were not making your feet sore. When you took your shoes off tonight you noticed some red spots on both your feet and a blister on the side of the big toe on your right foot.

1. **What would you do about the red areas and blister on your foot? When would you contact your health care provider for foot problems?**

   _____
   _____
   _____
   _____
   _____

2. **Are you concerned that you did not feel any soreness with your new shoes? How would you check for feeling in your feet? If you have decreased feeling in your feet, what would you do?**

   _____
   _____
   _____
   _____
   _____

3. **What would you do differently the next time you buy a new pair of shoes? What type of shoes would you choose? How would you break in your new shoes?**

   _____
   _____
   _____
   _____
   _____

New Shoes

You bought a new pair of shoes 2 days ago. You decided to wear them for the past 2 days because they felt fine and were not making your feet sore. When you took your shoes off tonight you noticed some red spots on both your feet and a blister on the side of the big toe on your right foot.

1. **What would you do about the red areas and blister on your foot? When would you contact your health care provider for foot problems?**

   These may be signs that your shoes are rubbing and do not fit well. You may need to change shoe style or wear different shoes. People with diabetes need to see their health care provider right away if they have a cut or blister or have signs or symptoms of infection. Discuss local policies on care of red areas and blisters. It is best to let blisters heal by themselves. If a blister is larger than a small pea or has opened, see your health care provider. Discuss how they can be seen in their facility the same day as needed.

2. **Are you concerned that you did not feel any soreness with your new shoes? How would you check for feeling in your feet? If you have decreased feeling in your feet, what would you do?**

   Yearly foot screening includes inspection, testing for feeling with a sensory monofilament (SW 5.07 monofilament) and other tests, pulse check, observation of pressure points with weight bearing and possible dopler studies. Daily personal foot exams are needed to look for changes and infection because you may not be able to feel them. Special care from a foot doctor is needed when there is a loss of feeling in the feet.

3. **What would you do differently the next time you buy a new pair of shoes? What type of shoes would you choose? How would you break in your new shoes?**

   People with diabetes need to buy new shoes carefully. They need to shop for shoes in the afternoon, tell the shoe salesperson they have diabetes, have the salesperson measure both feet and test the shoe fit by wearing them at least 5 minutes in the store. If your feet are numb, a pattern of the feet cut from heavy paper can be put into shoes when shopping to help ensure fit. Proper footwear supports, protects and covers the feet. People with diabetes need to choose shoes that fit well and are made of leather or canvas with laces or straps, a smooth lining on the inside, a round toe box, a low firm heel and soft insoles. Avoid wearing shoes that may cause problems for the feet for long periods of time, such as sandals, moccasins and cowboy boots. People with diabetes need to break new shoes in slowly by wearing them for only 1-2 hours a day at first and check feet for redness and irritation every time they remove their shoes and socks. If shoes hurt when you try them on, do not buy them. Never wear new shoes all day. If the shoes are causing redness or irritation, return them as soon as possible.

SESSION

12

Planning for Pregnancy

DM-PPC
Preconception Care

STATEMENT OF PURPOSE

This session provides information about preconception care for women with diabetes.

PREREQUISITES

It is recommended that participants have a basic understanding of both diabetes and pregnancy.

LEARNING OBJECTIVES

DM-PPC1	Describe the need to reach target blood sugar goal before becoming pregnant.
DM-PPC2	Identify 2 or more ways to reach target blood sugar goal before becoming pregnant.
DM-PPC3	State that insulin injections may be needed to reach target blood sugar goal before becoming pregnant.
DM-PPC4	State 2 potential problems for the baby if pregnancy occurs while the mother's blood sugar is high.
DM-PPC5	State 2 potential problems for the mother during pregnancy.
DM-PPC6	State the need to use birth control until ready to become pregnant.
DM-PPC7	State the need to seek early prenatal care.
DM-PPC8	State the need to avoid tobacco, alcohol and drugs before and during pregnancy.
DM-PPC9	Identify community resources to support families before, during and after pregnancy.
DM-PPCGS	State or write a personal plan to prepare for pregnancy.
DM-PPCGNS	Behavior goal not set (follow-up).
DM-PPCGM	Behavior goal met (follow-up).
DM-PPCGNM	Behavior goal unmet (follow-up).

CONTENT

Preconception care

MATERIALS NEEDED

Visuals

#1 *Planning for Pregnancy When You Have Diabetes*
#2 *Target Blood Sugar Goals for Pregnancy*
#3 *Diabetes and Family Planning*
#4 *Getting Ready for Pregnancy*
#5 *So Many Blessings*
#6 *Changes I Can Make*

Additional

Picture/poster of baby in womb
Samples of birth control methods
Resource list for tobacco cessation, alcohol/drug counseling and prenatal care

METHOD OF PRESENTATION

Preconception information needs to be provided to all women of childbearing age with diabetes who can become pregnant. Identify the target audience and provide this information as a separate class, or one-on-one session, for them.

Start by introducing yourself. Use a creative ice breaker. (See Introduction on p. XIII for examples.) You may want to ask participants to introduce themselves and share something about themselves, their family and how they live with diabetes. Explain that the purpose of this session is to provide information about planning for pregnancy.

Use facilitated group discussion to present material. Encourage participants to share stories and ask questions to facilitate the discussion. A video could also be shown to introduce content if available.

CONTENT OUTLINE

Objective	Content	Educator's Notes
PPC1. Describe the need to reach target blood sugar goal before becoming pregnant.	Planning for pregnancy protects the mother's and baby's health. This is especially important when the mother has diabetes.	Ask, "Will this be your first pregnancy? Do you have other children?" List responses. Visual #1: *Planning for Pregnancy When You Have Diabetes,* p. 1-2 and Visual #4: *Getting Ready for Pregnancy*
	As soon as a woman becomes pregnant, the sugar in her blood goes to the baby so that the baby can grow and develop.	The mom's sugar is food for the baby.
	If the mother's blood sugar is high, the baby's blood sugar is high. High blood sugar can cause problems for the baby.	Blood sugar that stays high for several days or longer can hurt the baby.
	Keeping blood sugar at target goal before pregnancy and at the time she becomes pregnant, helps a woman have a healthy pregnancy and a healthy baby.	A woman may not know if she is pregnant for the first few weeks of pregnancy. Other things besides blood sugar may affect pregnancy outcomes, including tobacco/drug/alcohol use, medicines, health problems, etc.
	Blood sugar goals for women who are planning pregnancy are:	Visual #2: *Target Blood Sugar Goals for Pregnancy* and Visual #1: *Planning for Pregnancy When You Have Diabetes,* p. 7
	• A1c: 6% or less	Review what an A1c is. Ask, "What is your A1c now?" The A1c needs to be in the "normal lab range" to provide a healthy environment to become pregnant.
	• fasting blood sugar: 60 to 90 mg/dl	These goals are for whole blood glucose. Add 10-15% to convert these

Objective	Content	Educator's Notes
PPC1. (continued)		numbers to plasma glucose.
	• blood sugar 1 hour after meals: 100 to140 mg/dl • blood sugar 2 hours after meals: 100 to120 mg/dl	Blood sugar goals during pregnancy are the same.
	It is important for each woman to talk with her health care provider about target goals.	Recommended goals may vary. Provide information appropriate for the participants and facility.
PPC2. Identify 2 or more ways to reach target blood sugar goal before becoming pregnant.	These are ways to reach target blood sugar goal before becoming pregnant:	Visual #1: *Planning for Pregnancy When You Have Diabetes,* p. 6-8 Ask, "What helps you reach your target blood sugar goal now?" List responses.
	• make healthy food choices	Meet with a dietitian for an individual meal plan when planning a pregnancy.
	• be more active	Assess current level of physical activity and make physical activity a part of the daily routine before becoming pregnant. Balancing activity with food choices and insulin, if taken, will be needed. Check with a health care provider about what activities are best.
	• check blood sugar often	Check blood sugar at least 4 times a day to be sure the target goal is reached before becoming pregnant.
	• take insulin if needed	See Objective PPC-3.
	• work with the diabetes team When blood sugars are at target goal for 2-3 months, it is safe to become pregnant.	Start working with the prenatal diabetes team before becoming pregnant. See Objective PPC-9.

Objective	Content	Educator's Notes
PPC3. State that insulin injections may be needed to reach target blood sugar goal before becoming pregnant.	If a woman is not able to reach target blood sugar goal with food choices and physical activity, she will need to take insulin. Some diabetes pills may harm the developing baby. A woman taking diabetes pills needs to change to insulin before becoming pregnant.	Ask, "What are your feelings or fears about taking insulin?" List responses. Visual #1: *Planning for Pregnancy When You Have Diabetes*, p. 8 and Visual #5: *So Many Blessings* Insulin injections do not harm the baby. Other medicine, such as ACE inhibitors, may need to be changed before becoming pregnant. The amount of insulin you need may change after you become pregnant.
PPC4. State 2 potential problems for the baby if pregnancy occurs while the mother's blood sugar is high.	If a woman becomes pregnant while her blood sugar is high, problems that can happen are: • birth defects • miscarriage Because the baby's organs are formed during the first 8 weeks of pregnancy, the chance for birth defects is greatest if blood sugar is high at this time. This may be before a woman knows she is pregnant.	Visual #1: *Planning for Pregnancy When You Have Diabetes,* p. 3 Stress that women can reduce their chances for these problems by keeping their blood sugar at target goal at the time they become pregnant.
PPC5. State 2 potential problems for the mother during pregnancy.	Pregnancy may make some of the long-term problems of diabetes worse, including: • kidney problems (nephropathy) • eye problems (retinopathy) • heart disease • high blood pressure A woman with diabetes needs a medical check-up before she becomes pregnant to check for long-term problems from diabetes.	Visual #1: *Planning for Pregnancy When You Have Diabetes,* p. 4 Your health care provider will check your blood pressure, heart, blood vessels, thyroid, nerves and kidneys. An eye doctor will do a dilated eye exam.

Objective	Content	Educator's Notes
PPC5. (continued)	If a woman already has long-term problems from diabetes, she can talk with the health care provider about the effect of pregnancy on them and if special care is needed.	
PPC6. State the need to use birth control until ready to become pregnant.	Birth control can prevent pregnancy until: • blood sugar is at target goal • medical evaluation is complete • mother and family are ready for the demands of prenatal care Types of birth control include: • birth control pills/patch • foam and condom • abstinence (no sex) • diaphragm with jelly • depoprovera shots Methods for women who do not want to get pregnant for a long time are: • Hormonal implant • IUD Permanent birth control includes: • tubal ligation for women • vasectomy for men	Visual #3: *Diabetes and Family Planning* and Visual #1: *Planning for Pregnancy When You Have Diabetes,* p. 10-11 Provide local family planning *resource list.* Show samples of different methods if appropriate. Encourage women to talk to their health care provider about which method is best for them.
PPC7. State the need to seek early prenatal care.	It is important for a woman to know if she is pregnant so she can: • continue healthy behaviors • start prenatal care right away If blood sugar is not at target goal at the start of pregnancy, early treatment and starting healthy behaviors can help achieve a healthy pregnancy and healthy baby.	Ask, "What are some signs and symptoms of pregnancy?" List responses. Visual #1: *Planning for Pregnancy When You Have Diabetes,* p. 11

Objective	Content	Educator's Notes
PPC7. (continued)	A woman who thinks she might be pregnant needs to go to the clinic as soon as possible to get a pregnancy test. If the pregnancy test shows that a woman is pregnant, she will receive the following care right away: • a health assessment, including an exam and lab tests • nutrition counseling • diabetes education • prenatal education	Signs and symptoms of pregnancy may include: • late or missed period • nausea or vomiting • fatigue • dizziness • tender breasts Provide local *resource list* for pregnancy testing. Stress the importance of starting prenatal care right away with the prenatal diabetes team.
PPC8. State the need to avoid tobacco, alcohol and drugs before and during pregnancy.	Using tobacco, drugs and alcohol while pregnant can cause problems for the baby. Do not use these when becoming pregnant or during pregnancy.	Visual #1: *Planning for Pregnancy When You Have Diabetes,* p. 9 Provide local *resource list* for tobacco cessation and drug/alcohol counseling.
PPC9. Identify community resources to support families before, during and after pregnancy.	Pregnancy can be a happy time when a woman and her family look forward to good things ahead. Pregnancy is not always easy and there are many demands on the mother and her family. Planning for pregnancy is easier when the mother and her family are part of a team. Team members include: • the pregnant woman and her family • obstetrician • pediatrician • diabetes nurse educator • dietitian • public health nurse	Ask, "What are some of the things that you and your family might need support for during pregnancy?" List responses. Discuss team members and their roles. Provide local *resource list.*

Objective	Content	Educator's Notes
PPC9. (continued)	• social service staff • behavioral health staff • family planning center • alcohol and drug abuse program	
PPCG5. State or write a personal plan to prepare for pregnancy.	Making changes in health habits, such as healthy behaviors when planning pregnancy, is easier when plans are broken down into small, easy-to-do steps.	Visual #5: *So Many Blessings* and Visual #4: *Getting Ready for Pregnancy* Visual #6: *Changes I Can Make* Assist participants to write or state at least one thing they will do to plan/ prepare for pregnancy. See Session 3: *Making Healthy Changes.*

SKILLS CHECKLIST

Each participant will be able to make a preconception plan.

EVALUATION PLAN

Knowledge will be evaluated by achievement of learning objectives and by responses to questions during the session. The ability to apply knowledge will be evaluated by the development and implementation of their personal preconception plan. Application of knowledge can also be evaluated through *Diabetes and Real Life Activities*. Evaluation will also include program outcome measures.

DOCUMENTATION PLAN

Record class attendance and objectives achieved. Document patient response on the PCC record using *IHS Patient and Family Protocols and Education Codes*.

Diabetes and Pregnancy

You are a woman with diabetes who has had nausea and tender breasts for a few days. You do not think you have missed a period, but you are not sure.

1. **How would you know if you are pregnant? Why would it be important to know?**

_____
_____
_____
_____
_____

2. **If you are pregnant, what would your health care provider do at the first visit?**

_____
_____
_____
_____
_____

3. **What would you do to plan ahead for pregnancy?**

_____
_____
_____
_____
_____

Diabetes and Pregnancy

You are a woman with diabetes who has had nausea and tender breasts for a few days. You do not think you have missed a period, but you are not sure.

1. **How would you know if you are pregnant? Why would it be important to know?**

   As soon as a woman becomes pregnant, the sugar in her blood goes to the baby so that the baby can grow and develop. If the mother's blood sugar is high, the baby's blood sugar is high. High blood sugar can cause problems for the baby. If a woman becomes pregnant while her blood sugar is high, birth defects or miscarriage can happen. Because the baby's organs are formed during the first 8 weeks of pregnancy, the chance for birth defects is greatest if blood sugar is high at this time. This may be before a woman knows she is pregnant. It is important for a woman to know if she is pregnant so she can continue healthy behaviors and start prenatal care right away. If blood sugar is not at target goal at the start of pregnancy, early treatment and starting healthy behaviors can help achieve a healthy pregnancy and healthy baby. A woman who thinks she might be pregnant needs to go to the clinic as soon as possible to get a pregnancy test. Signs and symptoms of pregnancy may include late or missed period, nausea or vomiting, fatigue, dizziness and/or tender breasts.

2. **If you are pregnant, what would your health care provider do at the first visit?**

   If the pregnancy test shows that a woman is pregnant, she will receive the following care right away:
   - a health assessment, including an exam and lab tests
   - nutrition counseling
   - diabetes education
   - prenatal education

3. **What would you do to plan ahead for pregnancy?**

   Women can plan for pregnancy by reaching target blood sugar goals before becoming pregnant. They can do this with healthy food choices, being more active, checking blood sugar often, taking insulin if needed and working with the diabetes team. When blood sugars are at target goal for 2-3 months, it is safe to become pregnant. Avoid tobacco, alcohol and drugs before and during pregnancy.

CURRICULA

Albuquerque Diabetes Program Curriculum.
PHS Indian Hospital, 801 Vassar Drive NE, Albuquerque, NM, 87106, (505) 248-4017.

Claremore Diabetes Program Curriculum.
PHS Indian Hospital, Claremore, OK, 74017, (918) 342-6451.

U.S. Diabetes Conversation Maps®.
Healthy Interactions, Inc., Chicago, IL, 60610, http://www.healthyi.com/conversation-maps.aspx, 2007.
A Conversation Map tool combines a series of images and metaphors on a 3-foot (1 meter) by 5-foot (1.5 meters) tabletop display. It serves as a facilitation tool for healthcare professionals to use to engage people in conversations around a healthcare topic such as diabetes, heart health or obesity. http://www.healthyinteractions.com/us/en/diabetes/hcp/about/conversationmaptools.

Funnell, Martha et al. Life With Diabetes: A Series of Teaching Outlines by the Michigan Diabetes Research and Training Center, Third Edition. American Diabetes Association, 2004.

International Diabetes Center. Type 2 Basics. Minneapolis, MN, 55416, 2005.

Muscogee (Creek) Nation Diabetes Program Curriculum.
Muscogee (Creek) Nation, PO Box 400, Okmulgee, OK, 74447, (918) 756-3334.

Strong in Body and Spirit! Type 2 Diabetes BASICS Curriculum/Starter Kit. Native American Diabetes Project. A Native-American specific curriculum designed to be led by community health workers to help people eat healthy food and increase physical activity. http://www.laplaza.org/health/dwc/nadp/ International Diabetes Center. 3rd edition, 2009. Includes instructor's curriculum guide, easy-to-read patient book, and forms for collecting information and evaluation. http://www.parknicollet.com/healthinnovations/shopping/ProductDetail.cfm?productid=2058-BKIT.

Diabetes Education Curriculum: Guiding Patients to Successful Self-Management. AADE. 2009. Based upon the AADE7 Self-Care Behaviors framework, The AADE's *Diabetes Education Curriculum: Guiding Patients to Successful Self-Management* curriculum supports diabetes educators in their efforts to help people with diabetes and related conditions learn to make daily decisions about self-care that have a positive impact on their clinical outcomes and overall health status. The *Curriculum* is a CD-ROM product that contains a printable PDF.

Life with Diabetes: A Series of Teaching Outlines, 3rd edition. The Michigan Diabetes Research and Training Center has developed a curriculum which can be used to design and implement diabetes self-management education. This Curriculum meets current Standards for Diabetes Self-Management Education and is published and distributed by the American Diabetes Association (ADA).

IHS DIABETES EDUCATION MATERIALS

Indian Health Service Division of Diabetes Treatment and Prevention wants to share information in its publications and other communications media. IHS DDTP print publications and other media are available *free of charge*. Please visit the *Online Catalog* on our web site for the most up-to-date list of diabetes education tools:

http://www.diabetes.ihs.gov

BOOKLETS

Title of Booklet	How Available:
Diabetes and Native Americans	Booklet (25 per set)
Diabetes and Your Feelings	Booklet (25 per set)
Diabetes and Oral Pills	Booklet (25 per set)
Diabetes and Insulin	Booklet (25 per set)
Eye Damage "Retinopathy"	Booklet (25 per set)
Foot Wear for People with Diabetes	Booklet (25 per set)
How to Have a Healthy Baby	Booklet (25 per set)
How to Have a Healthy Heart	Booklet (25 per set)
Introduction to Insulin	Booklet (25 per set)
Kidney Damage "Nephropathy"	Booklet (25 per set)
Medicines for People with Diabetes	Booklet (25 per set)
My Personal Care Record	Booklet (25 per set)
My Prenatal Care Record	Booklet (25 per set)
Planning for Pregnancy When You Have Diabetes	Booklet (25 per set)
Take Care of Your Teeth: Diabetes & Gum Disease	Booklet (25 per set)
Taking Care of Your Eyes	Booklet (25 per set)
Taking Care of Your Feet	Booklet (25 per set)
Taking Care of Your Heart	Booklet (25 per set)
Taking Care of Your Kidneys	Booklet (25 per set)
Taking Care of Yourself by Walking	Booklet (25 per set)
The Intimate Side of Diabetes	Booklet (25 per set)
What I Need to Know About Eating and Diabetes	Booklet (25 per set)

IHS DIABETES EDUCATION MATERIALS (continued)

CURRICULA

Title	How Available:
IHS *Balancing Your Food Choices: Nutrition and Diabetes* A supplement to the *Balancing Your Life and Diabetes* (BYLD) curriculum that addresses nutrition and diabetes. This supplement is intended for use with the BYLD curriculum. This curriculum is available in our Online Catalog described on p. 228.	Packet and CD
IHS *Beautiful Beginnings: Pregnancy and Diabetes* A supplement to the *Balancing Your Life and Diabetes* (BYLD) curriculum that addresses pregnancy and diabetes, including pre-gestational and gestational diabetes. This supplement is intended for use with the BYLD curriculum. This curriculum is available in our Online Catalog described on p. 228.	Packet and CD
IHS *Diabetes Education for Tribal Schools (DETS): Grades K-12*	CD
IHS *Honor the Gift of Food*	Packet and CD

NUTRITION

Title	How Available:
My Food Choices to Keep My Kidneys Healthy	Booklet (25 per set)
Traditional Foods Can be Healthy	Booklet (25 per set)
What I Need to Know About Eating and Diabetes	Booklet (25 per set)
Why All the Talk About Fat?	Booklet (25 per set)
Why All the Talk About Fiber?	Booklet (25 per set)

IHS DIABETES EDUCATION MATERIALS (continued)

POSTERS

Title	How Available:
Protect the Gift of Vision	Poster – 50/bundle
Protect the Gift of Walking	Poster – 50/bundle
Respect the Gift of Dance	Poster – 50/bundle
Respect the Gift of Food	Poster – 50/bundle
Respect the Gift of Life	Poster – 50/bundle
Respect Your Mind, Body and Spirit	Poster – 50/bundle

MISCELLANEOUS

Title	How Available:
A Basic Approach to the Diabetic Foot	Booklet
A River Runs Through Us	Book and 90-day journal
Gen 7	Magazine (25 per set)
Health for Native Life	Magazine (25 per set)
Integrated Diabetes Education & Clinical Standards	Manual
Using Our Wit and Wisdom to Live Well With Diabetes	Book and audio CD

IHS DIABETES EDUCATION MATERIALS (continued)

TABLETS/PAMPHLETS

Title of Tablet/Pamphlet	How Available:
A1c Thermometer / Average Blood Sugar	50 sheets/tablet
Choosing Good Foods	50 sheets/tablet
Diabetes and American Indians: Are You at Risk?	50 sheets/tablet
Diabetes and Family Planning	50 sheets/tablet
Hidden Fats	50 sheets/tablet
Hidden Fats and Sugars	50 sheets/tablet
Hidden Sugars	50 sheets/tablet
Know Your Blood Sugar	50 sheets/tablet
Making Fry Bread More Healthy	50 sheets/tablet
Meal Planning for Diabetes	50 sheets/tablet
Nerve Damage to Heart and Blood Vessels	50 sheets/tablet
Nerve Damage to the Bladder and Urinary System	50 sheets/tablet
Nerve Damage to the Stomach and Intestine	50 sheets/tablet
Numbness of Hands, Legs and Feet	50 sheets/tablet
Sick Day Guide	50 sheets/tablet
Tips on How to Cut Down on Fat	50 sheets/tablet
Your Blood Sugar/Your Hemoglobin A1c	50 sheets/tablet

PUBLICATIONS ORDER FORM

IHS Division of Diabetes Treatment and Prevention

Fax, mail, or email your request to:

IHS Division of Diabetes Treatment and Prevention
5300 Homesead Road NE
Albuquerque, NM 87110
Phone: (505) 248-4182
Fax: (505) 248-4188
Email: diabetesprogram@ihs.gov

Date _____

Requested by _____

Address _____

_____

_____ **Zip Code** _____

Phone Number _____ **Fax Number** _____

Check One: ☐ **IHS Area Office** ☐ **IHS Service Unit**

☐ **Urban Health Program** ☐ **Tribal Health Program** ☐ **Other**

Program use only

Description List each item separately. Print clearly.	Number Requested	Number Sent	Date Sent, Comments

PUBLICATIONS ORDER FORM (continued)

Requested by _____

Program use only

Description List each item separately. Print clearly.	Number Requested	Number Sent	Date Sent, Comments

OTHER DIABETES EDUCATION MATERIALS

Videos

Altschul Group Corporation
1560 Sherman Avenue, #100
Evanston, IL 60201
(800) 421-2363
(708) 328-6706

American Association of Diabetes Educators (AADE)
100 West Monroe Street, Suite 400
Chicago, IL 60603
(800) 338-3633
www.diabeteseducator.org

CC-M Productions (Armchair Fitness)
7755 16th Street NW
Washington DC 20012
(800) 453-6280
www.armchairfitness.com

LEAP Program (Feet)
4350 Bethel Road, Suite 208
Bethesda, MD 20814
(800) 400-2742
www.hrsa.gov/leap

Milner-Fenwick
2125 Greenspring Drive
Timonium, MD 21093
(800) 432-8433
www.milner-fenwick.com

Oracle Film & Video
3309 Pico Blvd.
Santa Monica, CA 90405
(310) 264-5974
www.oraclefilmvideo.com

Pyramid Media
PO Box 1048/WEB
Santa Monica, CA 90406
(800) 421-2304
www.pyramidmedia.com

Printed Materials

Association of American Indian Physicians Diabetes Program
Diabetes Education Resource Database
1225 Sovereign Row, Suite 101
Oklahoma, City, OK 73108
(877) 943-4299
www.aaip.org

American Diabetes Association (ADA)
1701 N. Beauregard Street
Alexandria, VA 22311
(800) DIABETES
www.diabetes.org

American Dietetic Association
120 S. Riverside Plaza, Suite 2000
Chicago, IL 60606-6995
(800)877-1600
www.eatright.org

Idaho Plate Method
2901 Campbell Lane
Rock Springs, WY 82901
800.429.7279
www.platemethod.com

IDC Publishing
International Diabetes Center
P.O. Box 650
Minneapolis, MN 55440
(800) 862-7412
www.parknicollet.com

Krames Patient Education
780 Township Line Road
Yardley, PA 19067
(800) 333-3032
www.krames.com

OTHER DIABETES EDUCATION MATERIALS (continued)

National Diabetes Information Clearinghouse
NIDDK
1 Information Way
Bethesda, MD 20892-3560
(800) 860-8747
diabetes.niddk.nih.gov

National Diabetes Education Program (NDEP)
One Diabetes Way
Bethesda, MD 20814-9692Atlanta, GA
(888) 693-NDEP (6337)
www.ndep.nih.gov
Feet Can Last a Lifetime Kit
(includes monofilament)
Control Your Diabetes for Life
(patient education pamphlets)
Team Care: Comprehensive Lifetime Management for Diabetes (Manual)

Pritchett and Hull
3440 Oakcliff Road NE #110
Atlanta, GA 30340-3079
(800) 241-4925
www.p-h.com

Seva Foundation
Native American Diabetes Project and Diabetes
Talking Circles Project
1786 Fifth Street
Berkeley, CA 94710
(877) 764-7382
www.seva.org

Models

Ideabetes
8 Southwood Drive
Dover, NH 03820
(603) 749-3899
www.ideabetes.com

NASCO
901 Janesville Avenue
Ft. Atkinson, WI 53538-0901
(800) 558-9595
www.eNasco.com

National Dairy Council
10255 W. Higgins Road, Suite 900
Rosemont, IL 60018-4233
(708) 696-1860 ext. 220
www.nationaldairycouncil.org

ICEBREAKERS

Books:

Newstrom J and Scannell E. Games Trainers Play.
McGraw-Hill, 1980

Newstrom J and Scannell E. The Big Book of Presentation Games.
McGraw-Hill, 1998

Pfeiffer. The Encyclopedia of Icebreakers.
Pfeiffer and Co., 1983

Scannell E and Newstrom J. Even More Games Trainers Play.
McGraw-Hill, 1994

Scannell E and Newstrom J. Still More Games Trainers Play.
McGraw-Hill, 1994

West E. 201 Icebreakers.
McGraw-Hill, 1997

IDENTIFICATION

Goldware
PO Box 22335
San Diego, CA 92192
(800) 669-7311
www.medical-id.net/

IdentiFind
5465 Dutch Cove Road
PO Box 567
Canton, NC 28716-0567
(828) 648-6768
www.identifind.com

Medic Alert Foundation, US
2323 Colorado Ave
Turlock, CA 95382
(888) 633-4298
www.medicalert.org

Medic IDs
2400 Cypress St, Suite 50-211
West Monroe, LA 71291
(318) 397-8441
www.medids.com

Wallet cards for documentation of tests/exams are available from the American Diabetes Association, some pharmaceutical companies and some State Diabetes Control Programs.

IHS INTEGRATED DIABETES RECOGNITION PROGRAM (IDERP)

RECOGNIZED PROGRAMS (as of August 2009)

AMO Salina Community Clinic Cherokee Nation
Diabetes Self Management Education Program
Rae Ann Meisenheimer, RN, DSME Coordinator
900 N Owen Walter Blvd
Salina, OK 74365
Phone: (918) 434-8648
Email: rae-meisenheimer@cherokee.org

Balancing Your Life and Diabetes
Cattaraugus Indian Reservation Health Center
Lori Crassi, DSME Coordinator
36 Thomas Indian School Drive
Irving, NY 14081
Phone: (716) 532-8223; Fax: (716) 532-2501
Email: lori.crassi@senecahealth.org

Being Responsible American Indians with Diabetes (BRAID) - Oklahoma City Indian Clinic
Cathy Waller, RD/LD, CDE, DSME Coordinator
4913 W Reno
Oklahoma City, OK 73127
Phone: (405) 948-4900; Fax: (405) 948-4919
Email: cathy.w@okcic.com

Cass Lake Diabetes Education Program
Roxanne Johnson, Interim DSME Coordinator
425 7th St NW
Cass Lake, MN 56633
Phone: (218) 335-3244; Fax: (218) 335-3300
Email: roxanne.johnson@ihs.gov

Choctaw Diabetes Education Program
Lynda Johnson, DSME Coordinator
210 Hospital Circle
Choctaw, MS 39350
Phone: (601) 389-6221; Fax: (601) 389-1025
Email: lyndagjohnson@hotmail.com

Diabetes Education and Counseling Center
New Onset Class Series
Mamie Denetclaw, BSN, RN, CDE, DSME Coordinator
Northern Navajo Medical Center/
Shiprock Service Unit
Shiprock, NM 87420
Phone: (505) 368-6843; Fax: (505) 368-6103
Email: mamie.detnetclaw@ihs.gov

Diabetes Education Program – Aberdeen
South Dakota Urban Indian Health Inc
Nancy Haugen, CNP, DSME Coordinator
1315 6th Ave SE, Suite #6
Aberdeen, SD 57401
Phone: (605) 225-1538; Fax: (605) 229-2053
Email: nancyhaugen@sduih.org

Diabetes Education Program – Pierre
South Dakota Urban Indian Health Inc
Nancy Haugen, CNP, DSME Coordinator
1714 Abbey Road
Pierre, SD 57501
Phone: (605) 224-8841; Fax: (605) 224-6852
Email: nancyhaugen@sduih.org

Diabetes Education Program – Sioux Falls
South Dakota Urban Indian Health Inc
Nancy Haugen, CNP DSME Coordinator
320 S 3rd Ave, Suite B
Sioux Falls, SD 57104
Phone: (605) 339-0420; Fax: (605) 339-0038
Email: nancyhaugen@sduih.org

Educating Partners In Care - (EPIC)
Eufaula Health Center - MCN
Tamara Lambert, DSME Coordinator
800 Forest Avenue
Eufaula, OK 74432
Phone: (918) 689-2457 x261
Email: tamara.lambert@creekhealth.org

IHS INTEGRATED DIABETES RECOGNITION PROGRAM (IDERP)

RECOGNIZED PROGRAMS (as of August 2009) - continued

Educating Partners In Care - (EPIC)
Koweta Health Center - MCN
Lisa Todd, BSN, RN, DSME Coordinator
31870 E State Hwy 51
Coweta, OK 74429
Phone: (918) 279-3396; Fax: (918) 279-1118
Email: lisa.todd@creekhealth.org

Educating Partners In Care - (EPIC)
Okemah Health Center - MCN
Tina Gordon, DSME Coordinator
309 N 14th Street
Okemah, OK 74859
Phone: (918) 623-1424
Email: tina.gordon@creekhealth.org

Educating Partners In Care - (EPIC)
Okmulgee Health Center - MCN
Sherry O'Mara, RN-CDE, DSME Coordinator
1313 East 20th
Okmulgee, OK 74447
Phone: (918) 756-9911
Email: sherry.omara@creekhealth.org

Educating Partners In Care - (EPIC)
Sapulpa Health Center - MCN
Johnnie Brasuell, DSME Coordinator
1125 East Cleveland
Sapulpa, OK 74066
Phone: (918) 756-3334 x248
Email: johnnie.brasuell@creekhealth.org

Feather River Tribal Health Diabetes Self-Management Education Program
FR Tribal Health Clinic
Anna Cashman, DSME Coordinator
2145 Fifth Avenue
Oroville, CA 95965
Phone: (530) 532-6811 ext. 234; Fax: (530) 534-7095
Email: acashman08@comcast.net

Ft. Thompson Health Center Diabetes Education Program
Kari Blasius, RD LN CDE DSME Coordinator
Box 200
Ft. Thompson, SD 57339
Phone: (605) 245-1543; Fax: (605) 245-2150
Email: kari.blasius@ihs.gov

Ft. Washakie Diabetes Education Program
Wind River Service Unit
Glen Revere, DSME Coordinator
PO Box 128
Fort Washakie, WY 82514
Phone: (307) 335-5939; Fax: (307) 332-3949
Email: glen.revere@ihs.gov

Healthy Outcomes Promoted by Education (HOPE)
Warm Springs Health & Wellness Center
Jennie Smith, FNP, CDE, DSME Coordinator
PO Box 1209
Warm Springs, OR 97761
Phone: (541) 553-2478; Fax: (541) 553-2457
Email: jennie.smith@ihs.gov

HoPE – Health Paths Everyday
IHS Whiteriver Indian Hospital
Katheleen Chamberlain, RN-DE, DSME Coordinator
200 W Hospital Way
Whiteriver, AZ 85941
Phone: (928) 338-4911; Fax: (928) 338-3522
Email: kathleen.chamberlain@ihs.gov

Indian Health Care Resource Center Diabetes Patient Education Program (Tulsa)
Nancy O'Banion, MS, DSME Coordinator
550 S Peoria
Tulsa, OK 74120
Phone: (918) 382-1220; Fax: (918) 582-5137
Email: nobanion@ihcrc.org

IHS INTEGRATED DIABETES RECOGNITION PROGRAM (IDERP)

RECOGNIZED PROGRAMS (as of August 2009) - continued

Lac Courte Oreilles Community Health Center Diabetes Education Program
Jim Strunk, DSME Coordinator
13380 W. Trepania Road
Hayward, WI 54843
Phone: (715) 638-5147; Fax: (715) 634-2740
Email: jbstrunk@aol.com

Micmac Diabetes Education and Support Program
Robert Lemoine, ANP, Interim DSME Coordinator
8 Northern Road
Presque Isle, ME 04769
Phone: (207) 764-7219; Fax: (207) 764-7768
Email: robert.lemoine@ihs.gov

Nimiipuu Health Diabetes Education Program
Jeanne Laws, RN, MN, CDE, DSME Coordinator
PO Box 367
Lapwai, ID 83540
Phone: (208) 843-2271 x2924; Fax: (208) 843-9406
Email: jeannel@nimiipuu.org

NTHS Diabetes Self Management Education Program -- Northeastern Tribal Health System
Johnny Smith, DSME Coordinator
2301 Eight Tribes Trail
Miami, OK 74354
Phone: (918) 675-2051; Fax: (918) 542-7232
Email: johnny.smith@ihs.gov

Oneida Nation Diabetes Self-Management Diabetes Education Program
Michael J Washo, DSME Coordinator
2 Territory Road
Oneida, NY 13421
Phone: (315) 829-8713; Fax: (315) 829-8730
Email: mwasho@oneida-nation.org

Ponca Tribe Diabetes Education Program
Hilary Hopkins, Diabetes Program Administrator
1800 Syracuse Avenue
Norfolk, NE 68701
Phone: (402) 371-8834; Fax: (402) 371-7564
Email: hilaryh@poncatribe-ne.org

Puyallup Tribal Health Authority Diabetes Self-Management Education Program
Karol Matson, DSME Coordinator
2209 East 32nd Street
Tacoma, WA 98404
Phone: (253) 593-0232; Fax: (253) 382-2094
Email: kmatson@eptha.com

Redbird Smith Health Center - Cherokee Nation Diabetes Self Management Education Program
Terri Long, BSN, RN, CDE, DSME Coordinator
301 J T Stites Street
Sallisaw, OK 74955
Phone: (918) 774-1412
Email: terri-long@cherokee.org

Rocky Boy Diabetes Education Program
Mary Corcoran, RN, BSN, DSME Coordinator
RR1 Box 664
Box Elder, MT 59521
Phone: (406) 395-4486; Fax: (406) 395-4418
Email: mary.corcoran@rbclinic.org

Sam Hider Community Clinic Cherokee Nation Diabetes Self Management Education Program
Fonda Prine, BSN, RN, CDE, DSME Coordinator
1015 Washbourne St
Jay, OK 74346
Phone: (918) 253-4271 x282
Email: fonda-prine@cherokee.org

IHS INTEGRATED DIABETES RECOGNITION PROGRAM (IDERP)

RECOGNIZED PROGRAMS (as of August 2009) - continued

Sells Hospital Diabetes Self-Management Education Program - IHS Sells Service Unit
Barbara Khan, MS, RD, CDE,DSME Coordinator
PO Box 548
Sells, AZ 85734
Phone: (520) 383-7356; Fax: (520) 383-7225
Email: barbara.khan@ihs.gov

SIHB Diabetes Self-Management Education Program Seattle Indian Health Board
Judy Tomassene, RD, CDE, DSME Coordinator
PO Box 3364
Seattle, WA 98114-3364
Phone: (206) 324-9360 x2645; Fax: (206) 324-8882
Email: judy.t@sihb.org

Strength~Power~Integrity~Respect~Indian~Tradition (S.P.I.R.I.T.) Winnebago IHS
Paula Maslonka, DSME Coordinator
PO Box HH
Winnebago, NE 68071
Phone: (402) 878-2231; Fax: (402) 878-2408
Email: paula.maslonka@ihs.gov

Spirit Lake Health Care Diabetes Program
Karen Frohlich, DSME Coordinator
IHS Spirit Lake Health Center
PO Box 309
Fort Totten, ND 58335
Phone: (701) 766-1623; Fax: (701) 766-1620
Email: kfrohlich@ihs.gov

Stomping Out Diabetes at Ohi:yo' Lionel R John Health Center
Luanne Spruce, RN ,DSME Coordinator
987 RC Hoag Drive
Salamanca, NY 14779
Phone: (716) 945-5894; Fax: (716) 945-1983
Email: lori.crassi@senecahealth.org
Email: luanne.spruce@senecahealth.org

The New Patient Diabetes Education Program Claremore Indian Hospital
Melanie Sipe, RD CDE DSME Coordinator
101 S Moore St
Claremore, OK 74017
Phone: (918) 342-6444; Fax: (918) 342-6677
Email: melanie.sipe@ihs.gov

Three Rivers Health Center - Cherokee Nation Diabetes Self-Management Education Program
Michelle Goss, MS, RD/LC, CDE, DSME Coordinator
1001 S 41st Street E
Muscogee, OK 74403
Phone: (918) 781-6522; Fax: (918) 686-8398
Email: michelle-goss@cherokee.org

WW Hastings Indian Hospital Diabetes Education Self-Management Program
Beverly Ansorge, RN, BSN, DSME Coordinator
100 South Bliss Avenue
Tahlequah, OK 74464
Phone: (918) 458-3277; Fax: (918) 207-3781
Email: beverly-ansorge@cherokee.org

Wagner Indian Health Service Diabetes Program
Colleen Permann, RN BSN CDE DSME Coordinator
111 Washington NW
Wagner, SD 57380
Phone: (605) 384-3621; Fax: (605) 384-5701
Email: colleen.permann@ihs.gov

Wilma P Mankiller Health Center Cherokee Nation Diabetes Self Management Education Program
Kelly Goodrich, DSME Coordinator
Route 6 Box 840
Stillwell, OK 74960
Phone: (402) 878-2231; Fax: (402) 878-2408
Email: kelly-goodrich@cherokee.org

IHS INTEGRATED DIABETES RECOGNITION PROGRAM (IDERP) RECOGNIZED PROGRAMS (as of August 2009) - continued

Yellowhawk Health Center (YTHC) Diabetes Education Program
Jennifer Campbell, DSME Coordinator
PO Box 160
Pendleton, OR 97801
Phone: (541) 278-7512; Fax: (541) 278-7574
Email: jennifer.campbell@yellowhawk.org

IHS DIABETES CENTERS/MODEL PROGRAMS

Aberdeen Area

Fort Berthold Diabetes Program
Erna Granbois, Coordinator
Minni-Tohe Health Center
Box HC2 Box 24F
New Town, ND 58763
Phone: (701) 627-4701 Ext. 7830
Fax: (701) 627-3913

Fort Berthold Diabetes Program
Arne Sorenson, Coordinator
Three Affiliated Tribes
TAT Minne Tohe Health Care System
1 Minne Tohe Drive
New Town, ND 58763
Phone: (701) 627-7925; Fax: (701) 627-3913

Fort Totten Diabetes
Karen Frohlich, Coordinator
Spirit Lake Indian Health Center
PO Box 309
3883 74th Ave, NE
Fort Totten, ND 58335
Phone: (701) 766-1600; Fax: (701) 766-1626

Omaha Diabetes Program
Debra Parker, Director
Omaha Tribe of Nebraska
PO Box 250
Macy, NE 68039
Phone: (402) 837-5381; Fax: (402) 837-5303
Email: debraparker@ihs.gov

Whirling Thunder Wellness Program
Marianne DeCora, Director
Winnebago Tribe of Nebraska
PO Box 687
Winnebago, NE 68071
Phone: (402) 878-2440 Ext. 1239
Fax: (402) 878-2831

Alaska Area

Alaska Native Diabetes Program
Terry Raymer, Coordinator
4315 Diplomacy Drive
Anchorage, AK 99508
Phone: (907) 729-1125; Fax: (907) 729-1129
Email: twraymer@anthc.org

IHS DIABETES CENTERS/MODEL PROGRAMS (continued)

Albuquerque Area

ASU Diabetes Education Program
Harriet Yepa-Waquie, Director
Health Heart Project
801 Vassar Drive, NE
Albuquerque, NM 87106
Phone: (505) 248-4017; Fax: (505) 248-7697
Email: harriet.yepa-waquie@ihs.gov

Northern Navajo Medical Center
Kimberly Mohs, Coordinator
Diabetes Educatin Counseling Center
PO Box 160
US Hwy 491 North
Shiprock, NM 87420
Phone: (505) 368-6679; Fax: (505) 368-6103
Email: kimberly.mohs@ihs.gov

Zuni Comprehensive Community Health Center
John Miller, Director
PO Box 467
Zuni, NM 87327
Phone: (505) 782-7345; Fax: (505) 782-5723
Email: john.miller@ihs.gov

Zuni Community Health Model
Derrick Waatsa, Program Manager
Pueblo of Zuni
PO Box 308
Zuni, NM 87327
Phone: (505) 782-2665; Fax: (505) 782-4388

Bemidji Area

Northern Minnesota Diabetes Resource Center
Roxanne Johnson, Diabetes Nutritionist
PHS Indian Hospital
425 7th Street NW
Cass Lake, MN 56633
Phone: (218) 335-3245; Fax: (218) 335-3300
Email: roxanne.johnson@ihs.gov

Billings Area

Blackfeet Diabetes Program
Linda Lucke, Coordinator
Blackfeet Community Hospital
PO Box 760
Browning, MT 59417
Phone: (406) 338-6301; Fax: (406) 338-6195

California Area

UIHS, Inc., Diabetes Program
Linda Patterson, Coordinator
United Indian Health Services, Inc.
Tsurai Health Center
1600 Weeot Way
Arcada, CA 95521
Phone: (707) 825-5070; Fax: (707) 825-5055

Nashville Area

Houlton Band of Maliseet Diabetes Program
Simone Carter, Coordinator
Health Department
RR 3, Box 460
Houlton, ME 04730-9514
Phone: (207) 532-4229; Fax: (207) 532-2067

Mississippi Band of Choctaw Indians Diabetes Program
Lynda G. Johnson, Coordinator
210 Hospital Circle
Choctaw, MS 39350-6781
Phone: (601) 389-6354

Passamaquoddy-Indian Township Diabetes Program
Nakia Dana, Coordinator
Health and Social Service Dept.
PO Box 97
Princeton, ME 04668
Phone: (207) 796-2321
Fax: (207) 796-2422

IHS DIABETES CENTERS/MODEL PROGRAMS (continued)

Passamaquoddy Pleasant Point Diabetes Program
Eleen Runcy, Coordinator
Health and Social Service Dept.
PO Box 351
Perry, ME 04467
Phone: (207) 853-0711; Fax: (207) 853-2347

Penobscot Diabetes Program
Abbey McCarthy, Coordinator
Penobscot Nation Health Department
5 River Road
Indian Island, ME 04468
Phone: (207) 827-6101; Fax: (207) 827-5022

Oklahoma Area

Claremore Diabetes Program
Melanie Sipe, Coordinator
Claremore Indian Hospital
101 S Moore Ave
Claremore, OK 74017-5091
Phone: (918) 342-6444; Fax: (918) 342-6677
Email: melanie.sipe@ihs.gov

Lawton Diabetes Program
Claire Banks, Director
Lawton Service Unit
1515 Lawrite Tatum Rd
Lawton, OK 73501
Phone: (580) 354-5671; Fax: (580) 354-5675
Email: claire.banks@ihs.gov

Phoenix Area

Journey into Wellness Center
Greg Mahrt, Acting Director
PO Box 160
Ft. Duchesne, UT 84026
Phone: (435) 725-6893

Portland Area

Warm Springs Health and Wellness Center
Jennie Smith, Coordinator
PO Box 1209
Warm Springs, OR 97761
Phone: (541) 553-2478; Fax: (541) 553-2457
Email: jennie.smith@ihs.gov

Tucson Area

HS Diabetes Prevention Program
Monica F. Lopez, Coordinator
Sells Service Unit
PO Box 548
Sells, AZ 85634
Phone: (520) 383-7331; Fax: (520) 383-7225

IHS DIVISION OF DIABETES TREATMENT AND PREVENTION (DDTP)

IHS Division of Diabetes Treatment and Prevention (established 1978)
5300 Homestead Road NE
Albuquerque, NM 87110
Phone: (505) 248-4182
Fax: (505) 248-4188
Web Site: www.diabetes.ihs.gov

Kelly Acton, MD, MPH, FACP Email: kelly.acton@ihs.gov	Division Director
Lorraine Valdez, RN, BSN, MPA Email: s.lorraine.valdez@ihs.gov	Deputy Director/Nurse Consultant
Tammy Brown, MPH, RD, BC-ADM, CDE Email: tammy.brown@ihs.gov	Nutrition Consultant
Gordon Quam, BSN, RN Email: gordon.quam@ihs.gov	Nurse Consultant/Project Officer
Wendy Sandoval, PhD, RD, CDE Email: wendy.sandoval@ihs.gov	Training Officer
Karen Sheff, MS Email: karen.sheff@ihs.gov	Biostatistician/Data Manager
Julie Jojola Email: julie.jojola@ihs.gov	Program Assistant
Cecelia (Sea) Shorty Email: cecelia.shorty@ihs.gov	Program Specialist
Bonnie Bowekaty Email: bonnie.bowekaty@ihs.gov	Secretary
Merle Mike Email: merle.mike@ihs.gov	Office Automation Assistant
Reycita Trancosa Email: reycita.trancosa@ihs.gov	Office Automation Assistant
Denise Masawiestewa Email: denise.masawiestewa@ihs.gov	Office Automation Assistant

IHS NATIONAL AND AREA DIABETES CONSULTANTS (ADC)

Aberdeen Area
Juanita Mendoza, MHSA, RN, CDE
CAPT. U.S.P.H.S.
Diabetes Specialist
Acting Area Diabetes Consultant
Aberdeen Area IHS
Federal Building, Room 309
115 4th Avenue SE
Aberdeen, SD 57401
Phone: (605) 226-7259; Fax: (605) 226-7733
Email: juanita.mendoza@ihs.gov

Alaska Area
Terry Raymer, MD, CDE
Area Diabetes Consultant
Director Diabetes Program
Alaska Native Medical Center
4315 Diplomacy Drive
Anchorage, AK 99508
Phone: (907) 729-1126; Fax: (907) 729-1129
Email: twraymer@anmc.org

Albuquerque Area
Tina Tah, RN, BSN
Area Diabetes Consultant
Albuquerque Area IHS
5300 Homestead Road NE
Albuquerque, NM 87110
Phone: (505) 248-4267; Fax: (505) 248-4733
Email: tina.tah@ihs.gov

Bemidji Area
Stephen Rith-Najarian, MD
Area Diabetes Consultant
Bemidji Area IHS
Office of Clinical Services
522 Minnesota Ave
Bemidji, MN 56601
Phone: (218) 444-0513; Fax: (218) 444-0498
Email: stephen.rithnajarian@ihs.gov

Billings Area
Carol Strasheim, BSN, RN
Area Diabetes Consultant
PO Box 36600
2900 4th Avenue North
Billings, MT 59107
Phone: (406) 247-7111; Fax: (406) 247-7224
Email: carol.strasheim@ihs.gov

California Area
Helen Maldonado, PA-C, CDE
Area Diabetes Consultant
Sacramento
650 Capital Mall, Suite 100
Sacramento, CA 95814
Phone: (916) 930-3927 x332; Fax: (916) 930-3951
Email: helen.maldonado@ihs.gov

Nashville Area
Dianna Richter, RD, MPH, CDE
Area Diabetes Consultant
United South and Eastern Tribes
711 Stewarts Ferry Pike, Suite 100
Nashville, TN 37214
Phone: (615) 872-7900; Fax: (615) 872-7417
Email: drichter@usetinc.org

Ann Bullock, MD, Advisor
Cherokee Tribal Health Delivery
John Crowe Hill
Cherokee, NC 28719
Phone: (828) 497-7455; Fax: (828) 497-7459
Email: annbull@nc-cherokee.com

IHS NATIONAL AND AREA DIABETES CONSULTANTS (ADC) (continued)

Navajo Area
Martia Glass, MD, MPH
Karen Bachman-Carter, Alternate
Area Diabetes Consultant
Delphine McThomas Medical Center
North Hwy 491
PO Box 160
Shiprock, NM 87420
Phone: (505) 368-7428 (direct)
Phone: (505) 368-7425 (program assistant)
Fax: (505) 368-7426
Email: martia.glass@ihs.gov

Oklahoma Area
Renita Selmon, MS, ARNP, CDE
Diabetes Education Consultant
Oklahoma City Area IHS
701 Market Drive
Oklahoma City, OK 73114
Phone: (405) 951-3748
Fax: (405) 951-3916
Email: renita.selmon@ihs.gov

Phoenix Area
Charles Rhodes, MD
Area Diabetes Consultant
Phoenix Area IHS
Two Renaissance Square
40 North Central Avenue, Suite 606
Phoenix, AZ 85004-0931
Phone: (602) 364-5195
Fax: (602) 364-5125
Email: charles.rhodes@ihs.gov

Charlton Wilson, MD
Data Systems Advisor
Phoenix Indian Medical Center
4212 N 16th Street
Phoenix, AZ 85016
Phone: (602) 263-1587
Fax: (602) 263-1624
Email: charlton.wilson@ihs.gov

Portland Area
Donnie Lee, MD
Area Diabetes Consultant
Portland Area Diabetes Program
1220 SW Third Avenue
Portland, OR 97204-2892
Phone: (503) 326-2017
Fax: (503) 326-7280
Email: donnie.lee@ihs.gov

Tucson Area
Karen J. Higgins, PhD, MS, RD
Area Diabetes Grant Coordinator
7900 S. J. Stock Rd
Tucson, AZ 85746
Phone: (520) 295-2532
Fax: (520) 295-2569
Email: karen.higgins@ihs.gov

Urban Programs
Susan Mathew, RN, CDE, BC-CNS, BC-ADM
USPHS Commander
Indian Health Service
Urban Diabetes Consultant
2201 6th Avenue, Suite 937
Seattle, WA 98121-2500
Phone: (206) 615-2454
Email: susan.mathews@ihs.gov

INTERNET RESOURCES

(Note: These are in addition to those listed under Education Materials and Organizations)

AADE Diabetes Education Accreditation Program ..... www.diabeteseducator.org/professionalresources/accred/

American Association of Clinical Endocrinologists ..... www.aace.com

American Diabetes Association (ADA) ..... www.diabetes.org
The American Diabetes Association funds research; publishes scientific findings; provides information and other services to people with diabetes, their families, health care professionals, and the public; and advocates for scientific research and the rights of people with diabetes. American Diabetes Association's Native American Program: Awakening the Spirit, provides information specific to Native Americans, advocacy and recognition of excellence in diabetes prevention and treatment services in American Indian and Alaska Native communities by sponsoring the annual SDPI "Voices for Change" Awards Program.www.diabetes.org/communityprograms-and-localevents/nativeamericans/awakening.jsp. (800) 342-2383.

American Dietetic Association (ADA) ..... www.eatright.org
The American Dietetic Association is the nation's largest organization of food and nutrition professionals. Its mission is to promote optimal nutrition and well-being for all people by advocating for its members. (800) 366-1655.

ADA Education Recognition Program ..... professional.diabetes.org/recognition.aspx?cid=57995

American Society of Hypertension ..... www.ash-us.or

Centers for Disease Control and Prevention (CDC) ..... www.cdc.gov/diabetes
Division of Diabetes Translation
Provides data and trends on diabetes, a variety of informational materials (e.g., fact sheets, brochures, reports), implements the National Diabetes Education Program and provides links to diabetes projects.

Diabetes Care and Education Practice Group ..... www.dce.org

Diabetes Easy-to-Read Series ..... diabetes.niddk.nih.gov/dm/ez.asp

Diabetes Initiative of the Robert Wood Johnson Foundation ..... diabetesnpo.im.wustl.edu/index.html
Provides links to DSME programs, training and assessment materials, and a section on "lessons learned" submitted by grantees.

INTERNET RESOURCES (continued)

Diabetes Prevention Program ..... www.preventdiabetes.com

Endocrine Society ..... www.endo-society.org

HRSA Health Disparities Collaboratives ..... www.healthdisparities.net
The Health Disparities Collaboratives is a program that includes the Bureau of Primary Health Care, Institute for Healthcare Improvement, National Association of Community Health Centers, Inc., and other strategic partners, to generate and document improved health outcomes for underserved populations; transform clinical practice through models of care, improvement, and learning; develop infrastructure, expertise, and multidisciplinary leadership to support and drive improved health status; and build strategic partnerships.

Improving Chronic Illness Care ..... www.improvingchroniccare.org

IHS Division of Diabetes Treatment and Prevention Online Catalog ..... www.diabetes.ihs.gov

National Diabetes Education Initiative ..... www.ndei.org

National Diabetes Education Program ..... www.ndep.nih.gov
www.cdc.gov/diabetes/ndep
www.diabetesatwork.org
www.betterdiabetescare.nih.gov
www.yourdiabetesinfo.org
The National Diabetes Education Program brings together public and private partners to improve treatment and outcomes for people with diabetes, promotes early diagnosis, and prevents the onset of type 2 diabetes. It promotes awareness and education activities and quality care. The web site provides tools for educating health care providers and patients.

National Diabetes Information Clearinghouse ..... diabetes.niddk.nih.gov
The NIDDK's National Diabetes Information Clearinghouse is an information and referral service designed to increase knowledge about diabetes among patients and their families, health care professionals, and the public. (800) 860-8747.

National Guideline Clearinghouse ..... www.guideline.gov

National Heart, Lung and Blood Institute ..... www.nhlbi.nih.gov

National Library of Medicine ..... www.nlm.nih.gov

Physical Activity ..... www.healthfinder.gov/getactive
www.health.gov/paguideline

Tobacco Cessation ..... www.quitnet.org
www.cdc.gov/tobacco/how2quit.htm

INTERNET RESOURCES (continued)

A variety of diabetes resources are available on the Internet. Patient and professional information on diabetes, chat rooms and support groups can be found under "health and diabetes" through a variety of on-line services and search engines. Not all information found on the Internet is accurate or useful—be sure to verify information and warn patients to check with their health care provider before making any changes in their care.

JOURNALS

American Association of Diabetes Educators
(800) 338-3633
The Diabetes Educator ..... tde.sagepub.com

American Diabetes Association
(800) 806-7801
Clinical Diabetes ..... clinical.diabetes.journals.org
Diabetes ..... diabetes.diabetesjournals.org/
Diabetes Care ..... care.diabetesjournals.org
Diabetes Forecast ..... www.diabetes.org/diabetes-forecast
Diabetes Spectrum ..... spectrum.diabetesjournals.org

American Dietetic Association
(800) 745-0775
On the Cutting Edge ..... www.dce.org

Diabetes Interview
Kings Publishing, Inc
(800) 473-4636

Diabetes Self-Management
Practical Diabetology
R.A. Rapaport Publishing, Inc
(800) 234-0923

Health for Native Life ..... www.diabetes.ihs.gov/Resources/Catalog

National Diabetes Information Clearinghouse
(800) 860-8747
Diabetes Dateline ..... diabetes.niddk/nih.gov/about/newsletter.htm

National Federation of the Blind
(573) 875-8911
Voice of the Diabetic ..... www.nfg.org/nfg/Voice_of_the_Diabetic.asp

ORGANIZATIONAL TOOLS

American Association of Diabetes Educators offers resources, teaching and evaluation tools for *diabetes educators. The Art and Science of Diabetes Self-Management Education*, takes a patient-centered approach to teach diabetes educators effective strategies for enacting behavior change in those with diabetes. American Association of Diabetes Educators. AADE7™ Self-Care Behaviors framework. www.diabeteseducator.org/

Association for Community Health Improvement. Planning, Assessment. Diabetes Initiative of the Robert Wood Johnson Foundation provides links to DSME programs, training and assessment materials, and a section on "lessons learned" submitted by grantees. diabetesnpo.im.wustl.edu/index.html.

Division of Diabetes Translation at the Centers for Disease Control and Prevention (CDC) provides data and trends on diabetes, a variety of informational materials (e.g., fact sheets, brochures, reports), and links to diabetes projects. www.cdc.gov/diabetes

Indian Health Service's Division of Diabetes Treatment and Prevention offers DSME program recognition and a variety of educational materials tailored for American Indians and Alaska Natives. www.diabetes.ihs.gov

National Diabetes Education Program offers information on diabetes awareness campaigns, resources for healthcare professionals and consumers, and developing community partnerships. www.ndep.nih.gov

Partnership for Prevention. *Diabetes Self-Management Education (DSME): Establishing a Community-Based DSME Program for Adults with Type 2 Diabetes to Improve Glycemic Control—An Action Guide. The Community Health Promotion Handbook: Action Guides to Improve Community Health.* Washington, DC: Partnership for Prevention; 2009. www.prevent.org/actionguides/DiabetesProgram.pdf

ORGANIZATIONS

American Association of Diabetes Educators (AADE)
200 W. Madison St, Suite 800
Chicago, IL 60606
(800) 338-3633
www.diabeteseducator.org

American Diabetes Association (ADA)
1701 N Beauregard St
Alexandria, VA 22311
(800) DIABETES
www.diabetes.org

American Dietetic Association
120 S. Riverside Plaza, Suite 2000
Chicago, IL 60606-6695
(800) 877-1600
www.eatright.org

American Heart Association
7272 Greenville Ave
Dallas, TX 75231
(800) 242-8721
www.americanheart.org

California Diabetes and Pregnancy Program
Sweet Success Express
PO Box 9705
Fountain Valley, CA92728-9705
(714) 968-0735
www.sweetsuccessexpress.com

Canadian Diabetes Association
1400-522 University Ave
Toronto, Ontario M5G 2R5
Canada
(800) 226-8464
www.diabetes.ca

Centers for Disease Control and Prevention
Division of Diabetes Translation
4770 Buford Hwy NE, Mailstop: K-10
Atlanta, GA 30341-3717
(770) 488-5000
www.cdc.gov/diabetes

Diabetes Research Wellness Foundation
5151 Wisconsin Ave NW, Suite 420
Washington, D.C. 20016
(202) 298-9211
www.diabeteswellness.net

Indian Health Service
Division of Diabetes Treatment and Prevention
5300 Homestead Rd NE
Albuquerque, NM 87110
(505) 248-4182
www.diabetes.ihs.gov

International Diabetes Center
3800 Park Nicollet Blvd
St. Louis Park, MN 55416-2699
(888) 825-6315
www.parknicollet.com/diabetes

Joslin Diabetes Center
One Joslin Place
Boston, MA 02115
(617) 732-2400
www.joslin.org

Native American Diabetes Project
University of New Mexico
1720 Louisiana Blvd NE, Ste 312
Albuquerque, NM 87110
(505) 272-8465
www.laplaza.org/health/dwc/nadp

National Diabetes Education Program
Centers for Disease Control and Prevention
Atlanta, GA
(800) 438-5383
www.ndep.nih.gov

National Diabetes Information Clearinghouse
1 Information Way
Bethesda, MD 20892
(800) 860-8747

National Institute of Diabetes and Digestive and Kidney Diseases
National Institutes of Health (NIH)
Bethesda, MD 20892
www.niddk.nih.gov

ORGANIZATIONS (continued)

Native Diabetes Wellness Program (NDWP)
Centers for Disease Control and Prevention
Division of Diabetes Translation
4770 Buford Hwy NE, Mailstop: K-10
Atlanta, GA 30341-3717
(770) 488-5000
www.cdc.gov/diabetes/projects/diabetes-wellness.htm

SPORTS/ATHLETICS/PHYSICAL ACTIVITY

American Alliance for Health, Physical Education, Recreation, and Dance
1900 Association Dr
Reston, VA 20191
(800) 213-7193
www.aahperd.org

American College of Sports Medicine
401 W Michigan St
Indianapolis, ID 46202-3233
(317) 637-9200
www.acsm.org

The Cooper Institute
12330 Preston Rd
Dallas, TX 75230
(800) 635-7050
www.cooperinst.org

International Diabetic Athletes Association
PO Box 1935
Litchfield Park, AZ 85340
(602) 443-2113
(800) 898-4322

Presidents Council on Physical Fitness and Sports
200 Independence Ave SW
Room 738H
Washington DC 20201-0004
(202) 690-9000
www.fitness.gov

Surgeon General Guidelines on Physical Activity
Centers for Disease Control and Prevention
1600 Clifton Rd
Atlanta, GA 30333
(800) 232-4636
www.cdc.gov/nccdphp/sgr/sgr.htm

VISUAL IMPAIRMENT

American Foundation for the Blind
11 Penn Plaza, Suite 300
New York, NY 10001
(212) 502-7600
www.afb.org

Braille Translations
RFB&D
20 Roszel Rd
Princeton, NJ 08540
(866) RFBD-585
www.rfbd.org

Lion's Club International: Low Vision Service
300 W. 22nd St
Oak Brook, IL 60523-8842
(630) 571-5466
www.lionsclubs.org
Contact local chapters for information.

State Departments for the Blind and Visually Impaired
Contact state government for local services.

Talking Books
Contact state and local libraries for information.

PRODUCTS

For information on diabetes-related products, such as meters, glucose products, insulin pumps, assistive devices, lotions, artificial sweeteners, salt-free products, etc., contact manufacturers directly or seek information through your pharmacy, journals, websites and networking with other diabetes educators.
Many manufacturers will provide samples.

RESEARCH AND TRAINING CENTERS (NIDDK)

Albert Einstein College of Medicine DRTC
701 Belfer Bldg, Rm 1308
1300 Morris Park Ave
Bronx, NY 10461
(718) 430-2908
www.aecom.yu.edu

Indiana University DRTC
National Institute for Fitness and Sport
Rm 122, 250 N University Blvd
Indianapolis, IN 46202
(317) 278-0905

University of Chicago DRTC
5841 S Maryland Ave, MC 1028
Room N-216
Chicago, IL 60637
(773) 702-1334
www.uchicago.edu

University of Michigan DRTC
1103 Towsley Center, Box 0201
1500 E Medical Center Dr
Ann Arbor, MI 48109-0201
(734) 936-4000
www.med.umich.edu/mdrtc

Vanderbuilt University DRTC
1211 Medical Center Drive
Nashville, TN 37212
(615) 322-5000

Washington University DRTC
660 S. Euclid Ave
St. Louis, MO 63110
(314) 286-1900

RESEARCH AND TRAINING CENTERS (Other)

Diabetes Management and Training Centers, Inc.
3941 East Chandler Blvd #106, PMB 104
Phoenix, AZ 85048
(602) 426-1965
www.diabetestraining.com

Native American Diabetes Research and Training Center
University of Arizona (NARTC)
1642 E. Helen
Tucson, AZ 85719
(520) 621-5075
www.ahsc.arizona.edu

Wichita State University
Division of Continuing Education
1845 Fairmont
Wichita, KS 67260-0036
(316) 978-3456
www.wichita.edu

American Indian/Alaska Native Specific Readings

General:

Acton K, Burrows N, Moore K, Querec L, Geiss L, Engelgau M. *Trends in diabetes prevalence among American Indian and Alaska Native children, adolescents, and young adults.* Am J Public Health. Sep;92(9):1485-90, 2002. Erratum in: Am J Public Health 92(11):1709, Nov. 2002.

Acton K, Gohdes D: *Indian Health Service Diabetes Control Program.* In: Clinical Diabetes Mellitus: A Problem Oriented Approach. John K. Davidson (ed). 2nd edition. Thieme Inc., New York, pp 742-744, 1991.

Acton KJ, Preston S, Rith-Najarian S. *Clinical hypertension in Native Americans: a comparison of 1987 and 1992 rates from ambulatory care data.* Public Health Rep. 111 Suppl 2:33-6, 1996.

Acton K, Rogers B, Campbell G, Johnson C, and Gohdes D: *Prevalence of diagnosed diabetes and selected related conditions of six reservations in Wyoming and Montana.* Diabetes Care. 16 (Suppl 1):263-265, 1993.

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. 50(Suppl 2):Abstract 895-P, 2001.

Acton KJ, Shields R, Rith-Najarian S, Tolbert B, Kelly J, Moore K, Valdez L, Skipper B, Gohdes D. *Applying the diabetes quality improvement project indicators in the Indian Health Service primary care setting.* Diabetes Care. Jan;24(1):22-6, 2001.

Acton K, Valway S, Helgerson S, Huy JB, Smith K, Chapman V, and Gohdes D: *Improving diabetes care for American Indians.* Diabetes Care. 16 (Suppl 1):372-375, 1993.

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Burrows NR, Geiss LS, Engelgau MM, Acton KJ. *Prevalence of diabetes among Native Americans and Alaska Natives, 1990-1997: an increasing burden.* Diabetes Care. Dec;23(12):1786-90, 2000.

Dabelea D, Knowler WC, Pettitt DJ. *Effect of diabetes in pregnancy on offspring: Follow-up research in the Pima Indians.* Journal of Maternal-Fetal Medicine. 9(1):83–88, 2000.

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Gilliland SS, Carter JS, Skipper B, Acton KJ. *Hemoglobin A1c levels among American Indian/Alaska Native adults.* Diabetes Care 25(12):2178-2183, 2002.

Glass M: *Diabetes in Navajo Indians.* Federal Practitioner. 13:41-48, 1996.

Gohdes D and Broussard BA: *Diabetes in American Indians and Alaska Natives: Clinical and community approaches.* On The Cutting Edge. Diabetes Care and Education Group of the American Dietetic Association, 12(6):17-19, 1991.

American Indian/Alaska Native Specific Readings (continued)

Gohdes D: *Diabetes in North American Indians and Alaska Natives.* In: Diabetes in America, (2nd Edition), National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, NIH Publication No. 95-1468, pp 683-701, 1995.

Gohdes D, Rith-Najarian S, Acton K, and Shields R: *Improving diabetes care in the primary health setting: The Indian Health Experience.* Annals of Internal Medicine. 124(1 pt. 2):149-152, 1996.

Gohdes D, Kaufman S, and Valway S: *Diabetes in American Indians: An overview.* Diabetes Care. 16 (Suppl 1):239-243, 1993.

Gohdes, Dorothy; Rith-Najarian, Steve. *Improving Diabetes Care in the Primary Health Setting.* Annals of Internal Medicine, Part 2, Vol. 124 1:149-152, 1996.

Hall T, Hickey M, Young T: *Evidence for recent increases in obesity and non-insulin- dependent diabetes mellitus in a Navajo community.* American Journal of Human Biology. 4:547-553, 1992.

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Indian Health Service Division of Diabetes Treatment and Prevention. *Promoting a Healthy Weight in Children and Youth Clinical Strategies, 2008.* http://www.ihs.gov/MedicalPrograms/Diabetes/HomeDocs/Tools/ClinicalGuidelines/Promoting_Healthy_Weight_1208.pdf (Accessed Aug. 26, 2009).

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Martinez CB, Strauss K: *Diabetes in St. Regis Mohawk Indians.* Diabetes Care. 16 (Suppl 1):260-262, 1993.

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Visuals

Listing of Visuals Provided

* denotes materials available from IHS DDTP

Session 1: What is Diabetes?

- ❑ Pancreas
- ❑ Diabetes and American Indians*
- ❑ What is Diabetes?
- ❑ Normal Sugar in the Blood
- ❑ Too Much Sugar in the Blood
- ❑ Normal Blood Sugar and Insulin Levels
- ❑ Blood Sugar Ranges
- ❑ Target Blood Sugar Goals
- ❑ Changes I Can Make

Session 2: Diabetes and Mind, Spirit and Emotion

- ❑ Diabetes and Your Feelings*
- ❑ Feelings Faces
- ❑ When "The Blues" Won't Go Away
- ❑ Positive Ways to Handle Stress
- ❑ Relaxation Techniques
- ❑ Tips From Real Life
- ❑ Changes I Can Make

Session 3: Making Healthy Changes

- ❑ Sample Long-term Goals
- ❑ Healthy Behaviors
- ❑ Make Healthy Habits a Pleasure
- ❑ Changing Habits Step-by-Step
- ❑ Name That Stage
- ❑ Staying on the Path
- ❑ Benefits and Barriers
- ❑ Changes I Can Make

Session 4: Healthy Eating

- ❑ What I Need to Know About Eating and Diabetes
- ❑ The Food Pyramid
- ❑ Helping Hands
- ❑ Portion Sizes You Will Understand
- ❑ Hidden Fats*
- ❑ Hidden Sugars*
- ❑ Hidden Fats and Sugars*
- ❑ Food Record
- ❑ Choosing Good Foods*
- ❑ Plate Method: (Breakfast and Lunch/Dinner)
- ❑ Nutrients in Food Groups
- ❑ Tribe Wins at Losing Weight
- ❑ Diabetes and Nutrition: Common Questions, Clear Answers
- ❑ Changes I Can Make
- ❑ How to Have a Healthy Heart*

Session 5: Moving to Stay Healthy

- ❑ Taking Care of Yourself By Walking*
- ❑ Effort Scale
- ❑ Target Heart Rates
- ❑ Tips for Safe Physical Activity
- ❑ Walking the Rez with a Purpose
- ❑ Changes I Can Make

Session 6: Diabetes Medicine

- ❑ Actions of Diabetes Medicines in the Body
- ❑ Diabetes Medicines
- ❑ Medicine Sheet
- ❑ Two Men, Two Stories of Diabetes and Strength
- ❑ Wallet Card Template
- ❑ Changes I Can Make
- ❑ Pancreas
- ❑ Basal and Bolus Insulin
- ❑ Comparison of Insulins
- ❑ Insulin Action Times
- ❑ Injection Sites
- ❑ Giving an Insulin Injection
- ❑ Diabetes and Insulin*

Session 7: Home Blood Sugar Monitoring

- ❑ Healthy Behaviors: Home Blood Sugar Monitoring
- ❑ You Need to Know Your Blood Sugar Numbers
- ❑ Target Blood Sugar Goals
- ❑ Checklist for Meter Use (optional)
- ❑ Sample Diabetes Records #1-4 (examples with data)
- ❑ Sample Diabetes Record (blank)
- ❑ Changes I Can Make

Session 8: Knowing Your Numbers - ABC

- ❑ If you have diabetes, you are at high risk for heart attack & stroke
- ❑ You Need to Know Your Blood Sugar Numbers
- ❑ How to Compare Hemoglobin A1c Numbers to Blood Sugar Numbers
- ❑ How to Have a Healthy Heart*
- ❑ Stay Young at Heart
- ❑ Taking Care of Your Heart*
- ❑ Blood Vessels and Fat
- ❑ Types of Fat in the Blood
- ❑ There's Comfort in Knowing Your Numbers
- ❑ Changes I Can Make

Session 9: Balancing Your Blood Sugar

- ❑ Target Blood Sugar Goals
- ❑ Low Blood Sugar Symptoms
- ❑ How Can You Treat Low Blood Sugar?
- ❑ High Blood Sugar Symptoms
- ❑ How Can You Treat High Blood Sugar?
- ❑ Sick Day Guidelines
- ❑ Sugar-Free Fluids
- ❑ Foods That Contain 15 Grams of Carbohydrate
- ❑ Changes I Can Make

Session 10: Staying Healthy With Diabetes

- ❑ Blood Vessels in the Body
- ❑ Nerves in the Body
- ❑ Taking Care of Your Eyes*
- ❑ Normal Eye
- ❑ Microaneurysms
- ❑ Proliferative Retinopathy
- ❑ Large Vessel Disease
- ❑ Taking Care of Your Heart *
- ❑ Stay Young at Heart
- ❑ Blood Pressure Medicines
- ❑ Blood Fat Medicines
- ❑ Normal Kidney
- ❑ Taking Care of Your Kidneys*
- ❑ Be Kind to Your Kidneys
- ❑ Nerve Damage: Feet, Pain, Stomach, Heart*
- ❑ The Intimate Side of Diabetes*
- ❑ Taking Care of Your Teeth*
- ❑ My Health Status
- ❑ Changes I Can Make

Session 11: Taking Care of Your Feet

- ❑ Taking Care of Your Feet*
- ❑ Cutting Your Toenails
- ❑ Foot Wear for People With Diabetes*
- ❑ Look at Your Feet
- ❑ Changes I Can Make
- ❑ Treat Your Feet in a Good Way

Session 12: Planning for Pregnancy

- ❑ Planning for Pregnancy When You Have Diabetes*
- ❑ Target Blood Sugar Goals For Pregnancy
- ❑ Diabetes and Family Planning*
- ❑ Getting Ready for Pregnancy
- ❑ So Many Blessings
- ❑ Changes I Can Make

IHS Order Form for Visuals Provided

- This program does not take orders over the phone
- A written order by a representative of your program is required
- Please print clearly and provide all the necessary mailing information
- Orders are mailed out by 4th class mail. It takes approximately 3-5 weeks for delivery from the clearinghouse
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Fax, mail or e-mail your request to:

IHS Division of Diabetes Treatment and Prevention
5300 Homesead Road NE
Albuquerque, New Mexico 87110
Phone: (505) 248-4182
Fax: (505) 248-4188
Email: diabetesprogram@ihs.gov

Date _____

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Phone Number _____ **Fax Number** _____

Check One: ☐ **IHS Area Office** ☐ **IHS Service Unit**

☐ **Urban Health Program** ☐ **Tribal Health Program** ☐ **Other**

Program use only

Description	Number Requested	Number Sent	Date Sent Comments
Session 1: *Diabetes and American Indians*			
Session 2: *Diabetes and Your Feelings*			
Session 4: *Hidden Fats*			
Session 4: *Hidden Sugars*			
Session 4: *Hidden Fats and Sugars*			
Session 4: *Choosing Good Foods*			
Session 4: *How to Have a Healthy Heart*			

IHS Order Form for Visuals Provided (continued)

Requested by _____

Program use only

Description	Number Requested	Number Sent	Date Sent Comments
Session 5: *Taking Care of Yourself by Walking*			
Session 6: *Diabetes and Insulin*			
Session 8: *How to Have a Healthy Heart*			
Session 8: *Taking Care of Your Heart*			
Session 10: *Taking Care of Your Eyes*			
Session 10: *Taking Care of Your Heart*			
Session 10: *Takiing Care of your Kidneys*			
Session 10: *Nerve Damage: Feet, Pain, Stomach, Heart*			
Session 10: *The Intimate Side of Diabetes*			
Session 11: *Taking Care of your Teeth*			
Session 11: *Taking Care of Your Feet*			
Session 11: *Foot Ware for People with Diabetes*			
Session 12: *Planning for Pregnancy When You Have Diabetes*			
Session 12: *Diabetes and Family Planning*			

Sources for Additional Materials

Material	Type	Session	Source
Body Apron	VA	1, 6, 10	Ideabetes (603) 749-3899 www.ideabetes.com
Disease Process Video: *Type 2 Diabetes* or *The Game Plan*	AV	1	Milner Fenwick/AADE Series (800) 432-8433 www.milner-fenwick.com
Glucose Wands	VA	1, 10	Ideabetes (603) 749-3899 www.ideabetes.com
Well-Being Visual	VA	2	This can be developed locally with guidance from behavioral health staff, tribal culture staff and community leaders.
Feelings Cards	VA	2	Effectiveness Resources International (508) 533-2636 Feelings Faces can also be made into cards locally.
Psychosocial Aspects of Diabetes Video: *Emotional Aspects of Diabetes*	AV	2	Milner Fenwick/AADE Series (800) 432-8433 www.milner-fenwick.com
Resource Lists	IH	All	These need to be developed locally. Some IHS Recognized Programs and IHS Model Diabetes Programs have samples.
Health for Native Life Articles	IH	All	See Order Form for IHS Diabetes Education Materials in Resource Directory.
Behavior Change Records (Completed)	VA	3	These need to be developed locally by adding sample patient information to diaries, logs and contracts.
Behavior Change Contracts	ST	3	Samples are available from: • www.improvingchroniccare.org • www.healthdisparities.net/resources.html Samples are also found in literature on behavior change and goal setting. (See *Supplemental Readings*.)
First Step in Diabetes Meal Planning	EB	4	American Diabetes Association (ADA) (800) DIABETES www.diabetes.org

AV = Audiovisual
EB = Educational Booklet/Pamphlet
EG = Educator Guide
IH = Information Handout
ST = Self-care Tool
VA = Visual Aid

Material	Type	Session	Source
What I Need to Know About Eating and Diabetes	EB	4	IHS Division of Diabetes Treatment and Prevention (505) 248-4182 www.ihs.gov/MedicalPrograms/Diabetes See Order Form under *Resource Directory.*
Food Records (Completed)	VA	4	These need to be developed locally by adding sample patient information to food records, diaries and logbooks.
Food Models	VA	4	Nasco (plastic) (800) 558-9585 www.eNasco.com Actual foods can also be used. National Dairy Council (cardboard) (708) 696-1860 ext. 220 www.nationaldairycouncil.org
Food Packages			Collect actual food packages with ingredient listing and Nutrition Facts label.
Fat Tubes			Nasco (800) 558-9585 www.eNasco.com
Fat Model			Nasco (800) 558-9585 www.eNasco.com
Model of Arteries With Fat			Nasco (800) 558-9585 www.eNasco.com
Physical Activity Logbook			These need to be developed locally by adding sample patient information to food records, diaries and logbooks. The Diabetes Prevention Program www.preventdiabetes.com is one source for activity log books.
Step Counters			Step Counters and/or Digiwalkers are available from: • www.new-lifestyles.com (816) 554-0123 • www.accusplit.com (800) 935-1996 Other sources can be found through a search on the Internet.

Material	Type	Session	Source
Exercise Videotape	AV	5	• Rezrobics (323) 951-0077 www.dreamcatchers.org • Armchair Fitness (800)-453-6280 www.armchairfitness.com Look for other videos in local stores
Diabetes Pills/Pill Bottles	VA	6	Pharmacy staff can assist with pills/bubble packs/photos/bottles for visuals.
Medicine Organizers	VA	6	Available from local pharmacies and supermarkets.
Diabetes Identification	ST	6, 9	Sources include: • www.medical-id.net • www.identifind.com • www.medicalert.org • www.medids.com
Medicine Wallet Card	ST	6	Sources include: • Albuquerque Service Unit Diabetes Program • American Diabetes Association • Pharmaceutical companies
Insulin Bottles/Boxes	VA	6	Pharmacy staff and/or pharmaceutical companies can assist with sample bottles and boxes.
Syringes	VA ST	6	Pharmacy staff and/or pharmaceutical companies can assist with sample syringes.
Injection Devices	VA ST	6	Pharmacy staff and/or pharmaceutical companies can assist with sample injection devices.
Sharps Disposal Containers	VA ST	6	Collect samples of appropriate containers locally, such as empty liquid laundry detergent and bleach bottles.
Insulin Start Kit	VA ST	6	Becton, Dickinson and Company (201) 847-6800 www.bddiabetes.com
My Personal Care Record	ST	7	IHS Division of Diabetes Treatment and Prevention (505) 248-4182 www.ihs.gov/MedicalPrograms/Diabetes See Order Form under *Resource Directory.*
ADA Resource Guide	EB EG	7	Published annually by the American Diabetes Association (800) DIABETES www.diabetes.org

Material	Type	Session	Source
Meters/Test Strips	VA ST	7	Pharmacy staff and/or meter companies can assist with meters and test strips.
Lancets/Lancet Devices	VA ST	7	Pharmacy staff and/or meter companies can assist with lancets and lancet devices.
Logbooks	ST	7	Pharmacy staff and/or meter companies can assist with logbooks. *My Personal Care Record* is also available from the IHS DDTP (See previous page).
Model of Red Blood Cell With Glucose Attached	VA	8	Ideabetes (603) 749-3899 www.ideabetes.com
ABC Numbers Wallet Card	ST	8	Sources include: • American Diabetes Association (800) 232-6733 www.diabetes.org • Pharmaceutical companies • Some diabetes prevention and control Programs
Glucose products	VA ST	9	Sources include: • local supermarkets • pharmacies • Insulin Start Kit (see previous page) • Can-Am Care (877) 463-9800; www.can-amcare.com
Sick Day Kit	VA ST	9	This can be made locally by filling a shoebox or small bag with samples of Jello®, regular soda, applesauce, crackers, etc.
NIDDK *Take Charge of Your Diabetes* or *Complication Series*	EB	10	NIDDK diabetes.niddk.nih.gov (800) 860-8747
Complications Video: *Preventing the Long-Term Complications of Diabetes*	AV	10	Milner Fenwick/AADE Series (800) 432-8433 www.milner-fenwick.com
Laminated Chart: *Progression of Diabetic Retinopathy*	VA	10	American Academy of Opthalmology (415) 561-8500; www.aao.org Pictures can be downloaded from the National Eye Institute. (301) 496-5248; www.nei.nih.gov/photo
Models of Eye, Heart, Blood Vessels, Kidney, Foot, Teeth	VA	10	Nasco (800) 558-9585 www.eNasco.com
Games	VA	10, All	Heart Bingo, Diabetes Education Program University of New Mexico 1720 Louisiana N.E. Suite 312 Albuquerque, NM 87110 Make a Jeopardy game using session titles for the categories.

Material	Type	Session	Source
Foot Care Video	AV	11	LEAP Program (800) 400-2742 www.hrsa.gov/leap
Foot Self-Inspection Video	AV	11	LEAP Program (800) 400-2742 www.hrsa.gov/leap
Hand Mirror	VA ST	11	Podiatry services can assist with locating a sample. Some pharmaceutical companies provide long-handled mirrors.
Foot Lotions	VA	11	Podiatry services can assist with samples or suggestions of brands to purchase for use as samples. Some pharmaceutical companies provide samples.
Foot Care Instruments	VA ST	11	Podiatry services can assist with samples or suggestions of items to purchase for use as samples, such as emery board, pumice stone, clippers, etc.
Harmful Foot Products	VA	11	Podiatry services can assist with samples or suggest items to purchase for use as samples, such as corn removers, corn pads, razors, etc.
Sensory Monofilament	VA	11	LEAP Program (800) 400-2742 www.hrsa.gov/leap Some pharmaceutical companies also provide samples.
Foot Model	VA	11	Nasco 800-558-9585 www.eNasco.com
Foot Wear	VA	11	Podiatry services can assist with samples or suggest items to use as samples. Include samples of foot wear that have desirable features and those that may cause problems for feet.
Picture/Poster of Baby in Womb	VA	12	A simple visual can be created locally.
Birth Control Methods	VA	12	Pharmacy staff, women's health clinics, and/or the local health department can assist with providing samples of birth control used locally, including foam and condoms, birth control pills/ patches, etc.