



1.1

What Do I Know about Diabetes?

1. What do you know about diabetes?
2. Who gets diabetes?
3. How did you learn what you know about diabetes? Please explain.
4. How does diabetes affect someone's life? Give one or more examples.
5. Is diabetes a problem for our community? Please explain and give examples.
6. Do you think diabetes is something you should be concerned about? Explain your answer.





1.2

Interview Guidelines

■ Before beginning the interview, introduce yourself to your interviewee.

Even though the interviewees have been introduced to the class, it is helpful for you to introduce yourself. This will make them feel more comfortable.

■ Interviewees may not feel comfortable answering personal questions.

Not all people will feel comfortable answering all questions. Tell interviewees they do not need to answer questions that make them feel uncomfortable.

■ Listen carefully to an individual's answers.

Listening attentively is an important part of an interview and shows respect to the individual you are talking to. You should not try to write the individual's answers word for word. Instead, write down some key ideas or phrases that will summarize the idea. Take time between questions to make sure you have clear notes, but don't ask the interviewee to repeat exactly what he or she said before.

■ Closed-ended questions lead to uninformative answers.

"Does diabetes affect a person's life?" is a closed-ended question. Most people would assume the answer to be "yes." A question that has an obvious yes or no answer is an example of a closed-ended question. These types of questions do not provide much information. A better question would be less leading and would not imply a specific answer. For example,

the question could be, "How do you think diabetes affects a person's life?" To this question, the interviewee would have more freedom and could discuss many aspects of diabetes.

Closed-ended questions are useful to direct the interview. For example, it may be helpful to know if the interviewee has diabetes so you know what questions to ask next. However, you want to limit the number of these questions.

■ Open-ended questions allow people to respond in their own way.

Open-ended questions do not have yes or no answers and encourage the person to speak freely about the topic. "How does diabetes affect a person's life?" is an open-ended question that allows the person to express a variety of thoughts, experiences, and descriptions.

■ Don't ask questions that imply a specific desired answer.

For example, "How did what you learned about diabetes make you feel better?" assumes that knowing about diabetes improved the person's life. Revising the question to "How did learning about diabetes change your life?" does not imply a positive or negative impact.

■ Avoid expressing your own opinions.

Expressing your own opinions may keep the interviewee from giving his or her true thoughts.





1.2

- **If the question asks the interviewee to share opinions or feelings about a topic, do not try to change the person's mind or disagree with him or her.**

Opinions and feelings are very personal. Unlike facts, opinions and feelings are not "wrong." If interviewees feel that you are judging them or disagreeing with them, you may not get their real or complete thoughts.

- **If the interviewee has already answered a question as part of a question you asked previously, you don't need to ask the question again.**

If interviewee answers a question as part of the answer to a previous question, you don't need to ask it again. You may, however, wish to ask another question that would allow the interviewee to provide additional information or clarify the answer.

- **Ask follow-up questions to get more information or to make sure you understand the answer.**

Follow-up questions are useful to clarify and expand the previous responses. These may follow either a closed- or open-ended question.

- **Ask a variety of questions that cover many aspects of the topic.**

Good interview questions encourage people to give answers from personal, family, and community experiences.

- **Ask enough questions to get the best information in the interview.**

This is your opportunity to get as much information as possible. Use the opportunity to ask additional questions that will really let you know what the interviewee thinks.





1.3

Interview Questions

1. What do you know about diabetes?
2. Who gets diabetes?
3. How did you learn what you know about diabetes? Please explain.
4. How does diabetes affect someone's life? Give one or more examples.
5. Is diabetes a problem for our community? Please explain and give examples.
6. Do you think diabetes is something you should be concerned about? Explain your answer.

Note: Additional questions and answers may be written on the back of this sheet.





1.4

Summarizing the Interview

1. What do you know about diabetes?
2. Who gets diabetes?
3. How did you learn what you know about diabetes? Please explain.
4. How does diabetes affect someone's life? Give one or more examples.
5. Is diabetes a problem for our community? Please explain and give examples.
6. Do you think diabetes is something you should be concerned about? Explain your answer.

Note: Additional questions and answers may be written on the back of this sheet.





2.1

Questions for Health Professionals

Directions: Write answers to each question as you interview your health professional.

Which health professional did you interview? _____

1. What are the symptoms of type 2 diabetes?
2. How can people find out if they have type 2 diabetes?
3. Who gets diabetes?
4. What should people do to manage type 2 diabetes?
5. What can people do to reduce the chance they will get type 2 diabetes?
6. In what ways is diabetes a problem in American Indian and Alaska Native communities?
7. Where can people go to get accurate information about type 2 diabetes?

Note: Additional questions and answers may be written on the back of this sheet.





2.2a

Health Professional Resource Information— Registered Nurse (RN)

I am a registered nurse (RN). I assess broad health needs of patients and carry out nursing care to maintain and restore health. I teach and advise patients and their families how to manage their illness or injury. You probably know from your own visits to the doctor's office that I collect some basic health information when people come in to the doctor's office: temperature, blood pressure, pulse, respiratory rate, height, and weight. I also ask people why they have come to see the doctor. All of this information helps us understand people's overall health and how we can better serve their needs. I work in many settings such as clinics, hospitals, nursing homes, industry, home health, health agencies, or schools. I can even teach nursing skills in classroom and clinical settings that are part of a nursing school. Sometimes I do home visits to see patients or their families. I work closely with tribal community health representatives (CHRs).

I teach patients who have type 2 diabetes and their families about aspects of diabetes. When I talk to someone who is worried about getting diabetes, I explain the symptoms of type 2 diabetes. Two of the most common symptoms are having to go to the bathroom frequently and being very thirsty all the time. People have other symptoms, too, including being tired a lot of the time, feeling weak, feeling irritable or moody, and sometimes even feeling sick and nauseous. I also explain that people who have type 2 diabetes really

need to keep their blood glucose levels under control. If they don't, they can have some serious health problems. People who have type 2 diabetes and don't take care of themselves have a high risk of having heart problems or strokes, problems with their blood vessels that can lead to amputations, or for becoming blind. I also make sure they know that it is possible for people who have type 2 diabetes to avoid these problems. If they eat a healthy diet and do some physical activity every day, many people can stay very healthy.

I work closely with the patients' doctors to make sure that they know how to check the level of glucose in the blood. Most people who have type 2 diabetes use a digital blood glucose meter. I explain that people who have type 2 diabetes should check their blood glucose levels several times a day—usually before and after meals or exercise and before bedtime. I also explain that they should get an A1c test every few months. This test gives the doctor and the rest of the health care team a measure of how well the patients are managing their blood glucose level over a three-month time period.

I really like helping people learn how to manage their diabetes. Sometimes I get to teach families and community members that they can do things to lower the chance of getting diabetes. I explain that eating a healthy diet, losing extra weight, and getting more exercise can help lower the chance of getting diabetes.





2.2b

Health Professional Resource Information— Clinical Laboratory Professional

I work as a laboratory technician in a hospital. Often, I just tell people I'm a lab tech, for short. I used to work at the clinic in the town where I grew up. As a lab technician, I get samples of blood, body fluids, or even body tissues to analyze. I then give the results back to the doctor so he or she can know what is happening in the person's body. It is very important that every test I do is done correctly. People's health care decisions depend on getting accurate results.

In the hospital, I conduct tests to help the doctor learn what disease or health problem people have. It is common for doctors to send samples of a patient's blood for us to analyze. A doctor can tell a lot about what is wrong with a person just by knowing whether the number of red and white blood cells is within a normal range and whether the levels of different minerals in the blood, such as potassium and iron, are normal.

We often analyze the blood samples of people who doctors think may have type 2 diabetes. If a doctor thinks a person has type 2 diabetes, the person will need to get his or her blood tested. For this blood test, a person can't eat or drink for eight hours before blood is drawn. This is called a fasting blood glucose test. It is important that the person doesn't eat or drink for this time so that the test will give accurate results. After the nurse takes the blood sample, I begin my testing. For type 2 diabetes, I measure the amount of glucose that is in

the blood. For a healthy person, the fasting blood glucose concentration is usually between 70 and 99 milligrams per deciliter (mg/dL). A blood glucose concentration above 100 milligrams per deciliter indicates there may be a problem. A result above 126 indicates the person may have diabetes. Usually if the level is high, the doctor will want to have the test done again. As a lab technician, I can't diagnose what is wrong with people. I report the test results to the physician—the physician has the training to actually make the diagnosis.

Another laboratory test that I do is called a hemoglobin A1c test. Sometimes this is just called an A1c test. This is pronounced A-one-C. The A1c test is also a test of the blood. People who have already been diagnosed with diabetes usually get an A1c test every few months. This test gives the doctor an idea of the person's average blood glucose concentration over the past three months. The results of this test give the doctor an idea of how well a person has been managing his or her diabetes over a period of time.

I work very closely with the doctors and nurses at the hospital. I know that even though I don't see patients myself, I have a very important role in their health care. The doctors and nurses who I work with really depend on me to do the tests correctly and to make sure my reports to them are accurate.





2.2c

Health Professional Resource Information— Dietitian

I am a dietitian. I work in a health clinic, but other dietitians work in hospitals, schools, or even run their own businesses. I work with lots of different people. Some people come see me because they just want to learn how to eat more healthfully. Other people come because they want to lose weight and need some help with planning low-calorie or low-fat meals. I also work with athletes who want to eat very healthy meals so they can give their best performance.

Sometimes I work with people who have a specific health problem. In some cases, their doctor suggests they come see me to learn how they can make changes to their diet and eating behaviors that will improve their health or make it easier to live with their health problem.

In my clinic, I often work closely with people who have type 2 diabetes. I help people with diabetes learn to balance the food they eat with their physical activity and diabetes medications (if the doctor has prescribed them). Some people come because they have just been diagnosed with diabetes and they want to find out how they can change their diet to keep their blood glucose under better control. I explain to them how the foods they eat break down during digestion. Foods, especially those high in carbohydrates, break down into smaller units, including glucose. People with type 2 diabetes have high glucose

levels in their blood. I work with my clients to find out the types of foods they like to eat and how they normally prepare them. Usually we can find ways to fix their favorite foods so they are healthier and still taste good. Also, I help them plan how they can still eat some high-carbohydrate foods, including sweets. People with type 2 diabetes can still have treats, but they may just need to limit the amount and make choices about when they eat them.

Other people I meet with have had type 2 diabetes for a longer time and have had trouble losing weight. Losing extra weight is one way that people with type 2 diabetes can keep their blood glucose in balance and reduce their risk for developing real serious problems, like blindness or circulation problems.

I really enjoy my work. I see all ages of people. It used to be that only people over about 40 years of age got type 2 diabetes. Now I'm seeing more people of all ages who have type 2 diabetes. I even see teenagers who have been diagnosed with it. If I have a client who is a teenager, I usually want to meet with the parents, too, so they can learn how to make meals healthier for the teenager who has diabetes and for everyone in the family. Among Native Americans, there has been a large increase in the number of people who get this disease.





2.2d

Health Professional Resource Information— Physician

I am a physician. Mostly, people just call me doctor. I work in a clinic on the reservation because I want to be close to where I grew up and help members of my tribe. I could also work at a hospital or have my own private practice.

I specialize in family medicine. This means I work with people of all ages and treat many different kinds of diseases. One disease I see a lot now is type 2 diabetes. Type 2 diabetes is much more common now in the United States than it used to be, especially among Native Americans. Sixty years ago, type 2 diabetes was rare among Native Americans. Later, people only got it when they were adults. Now we even see it in kids.

When people come into my clinic, I ask them what their symptoms are. If they say they are really thirsty all the time or they are going to the bathroom a lot, I suspect they may have diabetes. These are two symptoms that are characteristic of diabetes. People may also have other symptoms, such as extreme hunger, tiredness, fatigue, irritability, unexplained weight loss, or blurry vision. Not everyone will have all of these symptoms.

If I think someone has diabetes because the symptoms he or she has are typical of the disease, I may ask the nurse to check the person's blood sugar or blood glucose level with a blood glucose meter. Or I might ask the patient to go to the lab for some initial blood tests. If the initial blood test results show that the blood glucose level is very high (greater than 200 milligrams per deciliter), I know the patient has diabetes. If the blood glucose test is only slightly high, then I may ask the patient to go for a fasting blood glucose test, which is a different

kind of blood test. For this test, the person needs to fast. That means that the person doesn't eat or drink anything except water for eight hours before the test. When I get the results of the test from the lab technician, I can tell if the person has type 2 diabetes. If the blood glucose concentration is high, the diagnosis is diabetes.

If a person does have type 2 diabetes, I will prescribe some changes to his or her life. For type 2 diabetes, many people can control their blood glucose levels by improving their diet and increasing the amount of exercise or physical activity they get. Losing extra weight helps people control their diabetes, too. Other people may need to do more after being diagnosed with type 2 diabetes. Some people should take medication in the form of pills every day. Other people may need to give themselves insulin shots.

Most people can control their diabetes if they do what I prescribe. If they don't control their blood glucose levels, they may, over time, develop serious problems like blindness, heart problems, nerve damage, or blood circulation problems that lead to amputation.

I usually suggest that people who have type 2 diabetes get additional help and information from other health professionals. For example, I recommend that patients meet with a dietitian or nutritionist, diabetes nurse, health educator, or sports trainer to help bring life more into balance. These professionals can help people learn about eating healthfully and increasing the amount of exercise they get. This information can help people learn more about how to take care of themselves, and how to live well with diabetes.





2.2e

Health Professional Resource Information— Diabetes Educator

I work as a diabetes educator to help individuals, families, and communities learn about diabetes and health. I work closely with doctors, nurses, dietitians, and exercise trainers. To become a diabetes educator, I went to school to become a social worker. Other people may choose to be nurses, psychologists, dietitians, or doctors before becoming diabetes educators. After finishing school, I got additional training about diabetes, its effects on the body, how it is treated, and how to help people make changes to their lives to manage their diabetes.

Sometimes I talk to people who have heard a little about diabetes and wonder if they might have it. I know the common symptoms of type 2 diabetes—things like being thirsty a lot, going to the bathroom more than usual, being hungry, or losing weight even if not trying to. I tell them that if they are having these or other symptoms, they should see their doctor. Unless I were also a physician like some of the diabetes educators I know, I can't diagnose someone with having diabetes. The person's doctor can order the blood tests needed for a diagnosis. Sometimes I do talk with people who do not have diabetes to help them learn about the signs or to help them make changes to their lifestyle that reduce their risk of getting type 2 diabetes in the future.

Usually I see patients who have been diagnosed with diabetes already. Their doctors usually explain that I can help them learn how to deal with the disease and make some changes in their lifestyles. I show them how to use a blood glucose meter. I also help them learn when and how often they should check their blood glucose levels and

what the blood glucose numbers mean. Many people who have type 2 diabetes want some help with an exercise plan. Increasing the amount of physical activity people get is usually an important part of the treatment for type 2 diabetes. For many people, walking 30 minutes a day, five times a week, can make a big difference. I also help people with type 2 diabetes learn how to make changes in what they eat so that their blood glucose stays more stable. Many people think that if they have type 2 diabetes, they have to give up all the foods they like. I can usually figure out different ways to prepare favorite foods but in a more healthy way. Or I work with people to help them find ways that they can have smaller amounts of their favorite foods as part of their overall food plan.

Type 2 diabetes only became a concern for Native Americans during the last 60 years. Until about 10 to 15 years ago, it was usually older adults who were diagnosed with type 2 diabetes. But now I see type 2 diabetes even in children and teenagers. I like to meet with the person who has type 2 diabetes and the rest of the family. It can really help if the whole family understands why it is important for people who have type 2 diabetes to take care of themselves. This is especially true if the individual is a teenager. The parents need to know how they can help their child manage his or her diabetes and stay healthy.

As a diabetes educator, I have many videos, books, and pamphlets to help people, families, and communities learn more. I also set up activities within the local community, such as health fairs, clinic screenings, and presentations to schools.

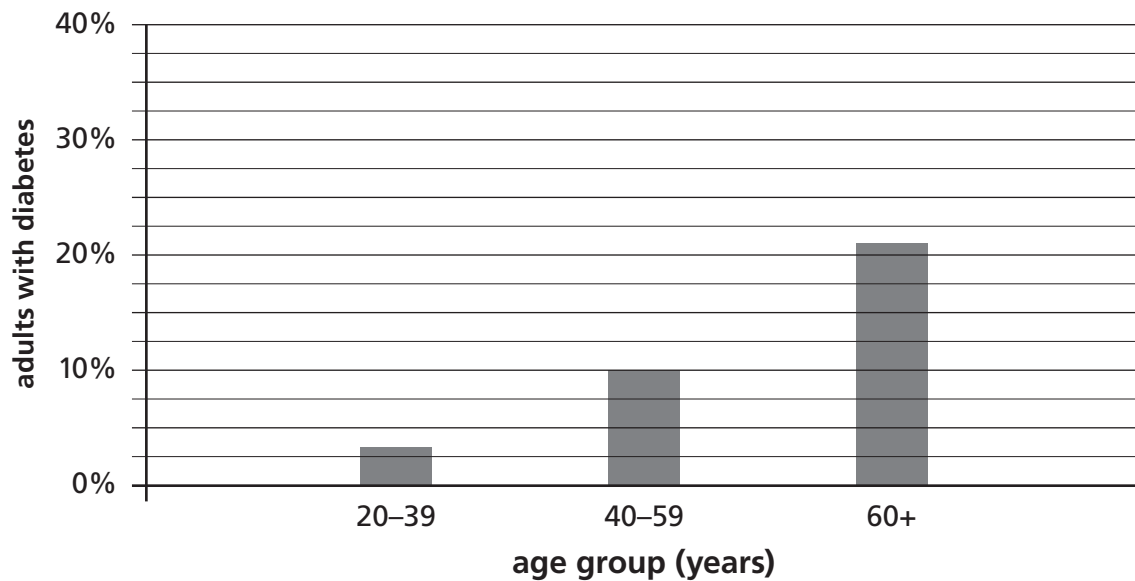




3.1a

Analyzing the Risk Factors for Type 2 Diabetes

Is age a risk factor for type 2 diabetes?

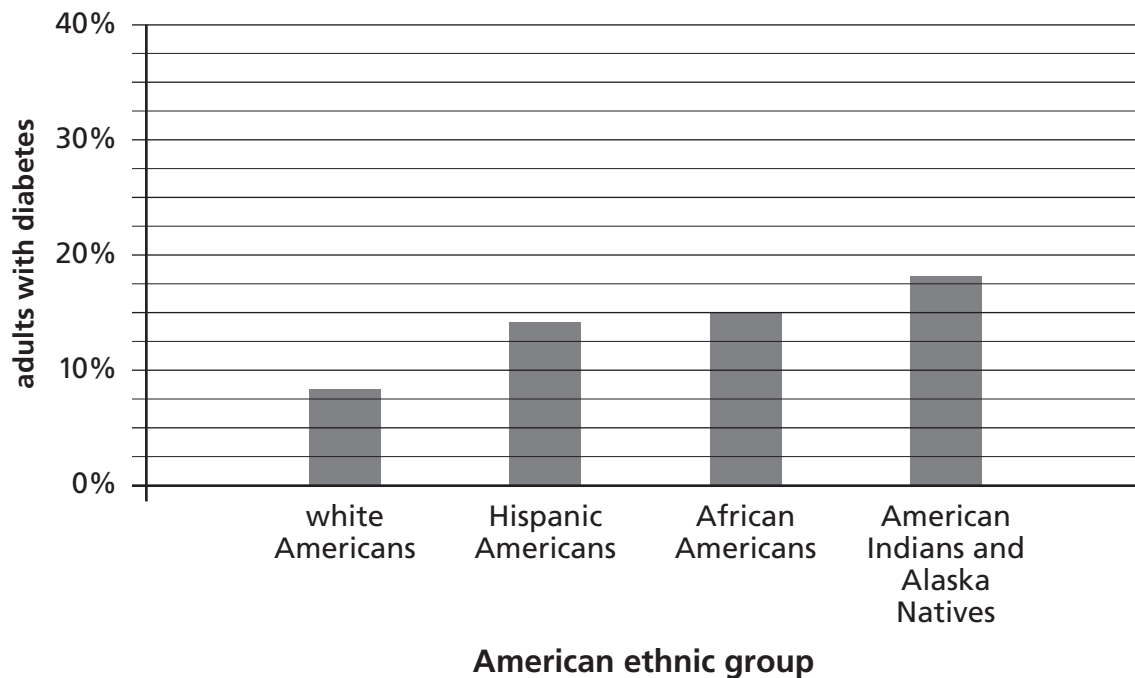




3.1b

Analyzing the Risk Factors for Type 2 Diabetes

Is ethnicity a risk factor for type 2 diabetes?

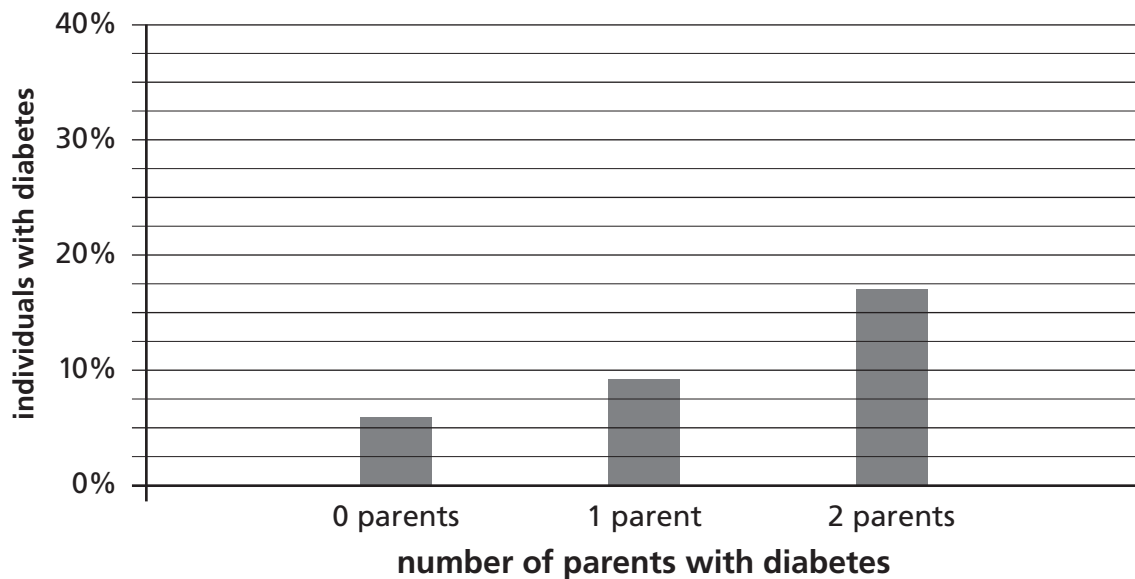




3.1c

Analyzing the Risk Factors for Type 2 Diabetes

Is family history a risk factor for type 2 diabetes?

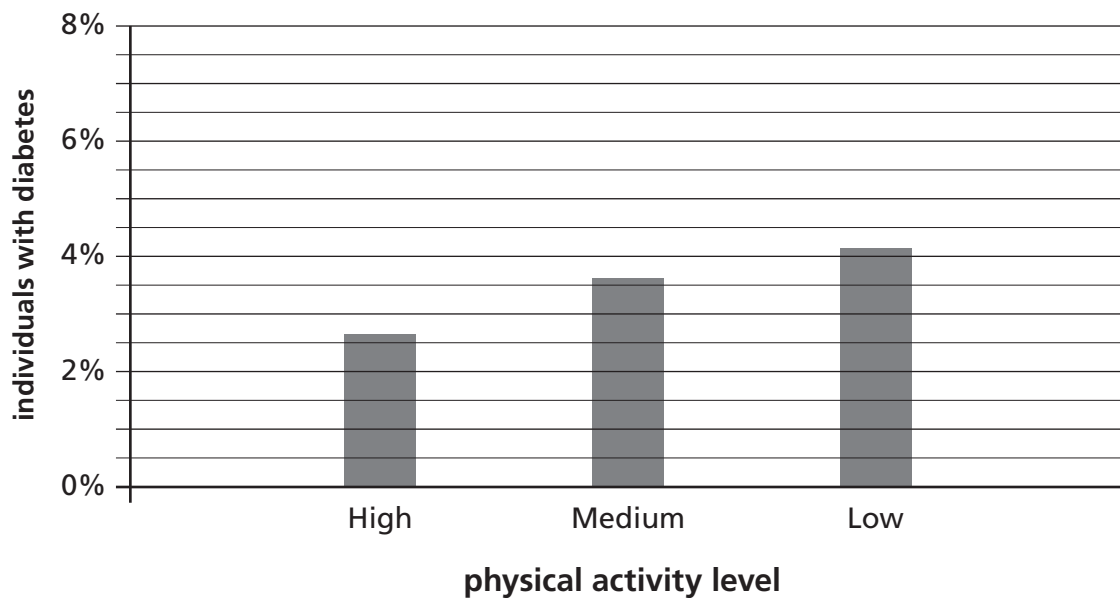




3.1d

Analyzing the Risk Factors for Type 2 Diabetes

Is the amount of physical activity a risk factor for type 2 diabetes?

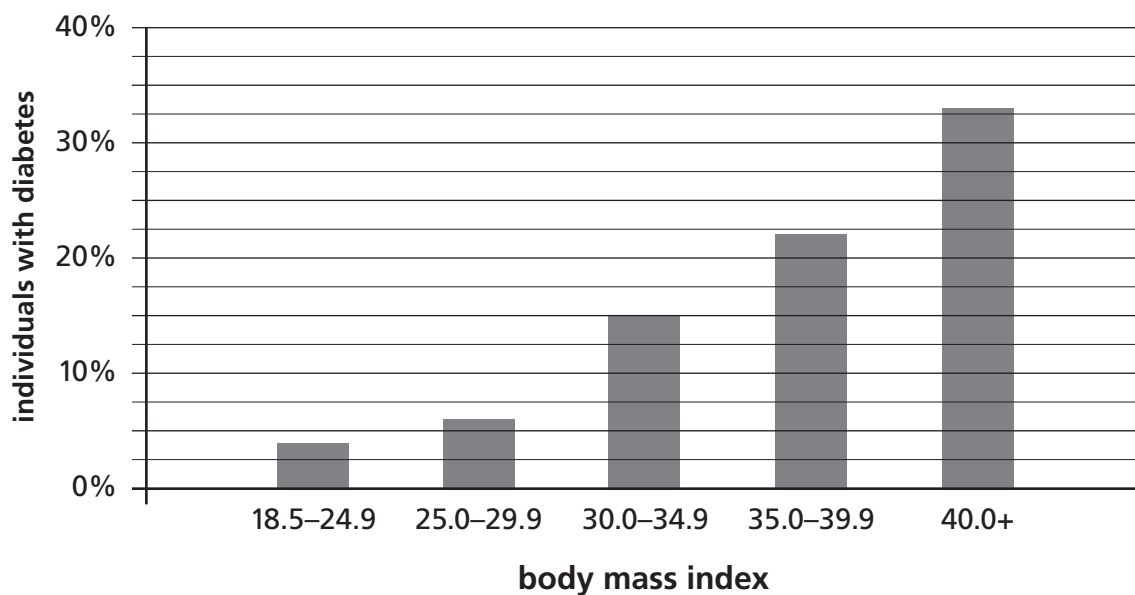




3.1e

Analyzing the Risk Factors for Type 2 Diabetes

Is obesity a risk factor for type 2 diabetes?



Body mass index (BMI) is a measure used to evaluate body weight relative to a person's height. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems.

BMI	Weight Status
Below 18.5	Underweight
18.5–24.9	Normal
25.0–29.9	Overweight
30.0 and above	Obese





3.2

Carla's Story



Part 1

My name is Carla. The name of my tribe is Lummi Nation that is located in the upper left corner of Washington State near the Canadian border. I come from a small family, with three sisters, one brother, and one parent, my mother.

When I was about 17, my mother developed type 2 diabetes. My grandmother already had diabetes, so we thought we had an idea of what diabetes was. Since we did not really know anything about diabetes, though, we did not take it too seriously until it was too late.

My grandmother seemed to be fine with her diabetes. She did not have any complications of high blood sugar; she died of colon cancer in 1984. So we still did not take diabetes very seriously, because my grandmother had been fine with it.

Later, I started college in Tacoma, Washington, with no idea what I would major in. I just knew that I wanted to be in medicine. As I started to learn more about diabetes, my mother's health started to worsen. Still I had no idea how serious this disease was.

My daughter was born in 1989. That fall, I left for Grand Forks, North Dakota, to start a college career in medical technology. I was so excited to learn more about medicine.

When I went home for Christmas break, I found out that my mother had been getting worse. She had serious complications of high blood sugar. First, she had developed heart problems and then nerve damage

to her feet. That meant that she needed a walker to walk at all. I was heartbroken to watch my own mother, whom I had always considered so "strong", suffer with this crippling disease. So every day I would take her for a walk down our road for only two telephone poles. It was so heartbreaking to see this when all my life I have been the one who depended on her.

We did this for the three weeks that I was home, until I had to return to North Dakota to start my next courses of study. I was four weeks into my new classes, and I was so excited I was learning more about the medicines that my mother was taking for her diabetes. I could hardly wait until I got back to my apartment, to call her to tell her about my new found knowledge.

One day, I was about to enter my biochemistry lab class, to start the experiment to test for the drug she was taking, when the instructor handed me a message. Because I was so excited about the experiment, I thought to myself that the message could wait until after class. When the instructor saw that I kept on walking into the room, she said to me, "I think you had better call right now." My heart sank. I knew it was bad news. I called the number, and it was my college counselor. She asked me where I was, and to wait there and she would be right there to get me. The message echoed in my head, "Your mother passed away this morning."

I hurt so much. All those years that I could have helped her with her disease, with the knowledge I know now. And 16 years later, it still hurts.





3.2

After my mother's funeral, I told myself that I would not put my daughter through the pain that I had just gone through, from watching my mother suffer and pass away due to type 2 diabetes. So I looked at myself. I had definite risks for type 2 diabetes—a strong family history, being overweight. I wanted to prevent me from getting type 2 diabetes, not just for my own health but also for my daughter, to protect her from going through the pain I had experienced.

Part 2

When I returned home to Lummi, I began to exercise and to watch what I ate and successfully lost 35 pounds. I still have a lot of weight to lose so I continue to struggle with my weight.

My sister and her family started a canoe club, and my daughter and nephew, whom I have custody of, really wanted to paddle. Two years later, I joined and have been paddling now for 10 years.

I have been exercising and watching my diet for 16 years now, and counting. Yearly, I check my glucose and hemoglobin A1c. This year my glucose was 96 milligrams per deciliter (mg/dL) and my A1c was 4.7, which are both in normal ranges.

Ever since I can remember, I have always wanted to be a doctor, but thought I was not smart enough to get into medical school. Since I have been working as a clinical laboratory scientist, I realized that my next goal is to become a nurse practitioner. A nurse practitioner is more realistic, because not only can I see and treat patients, but I can also do nursing work and keep my license in the lab.

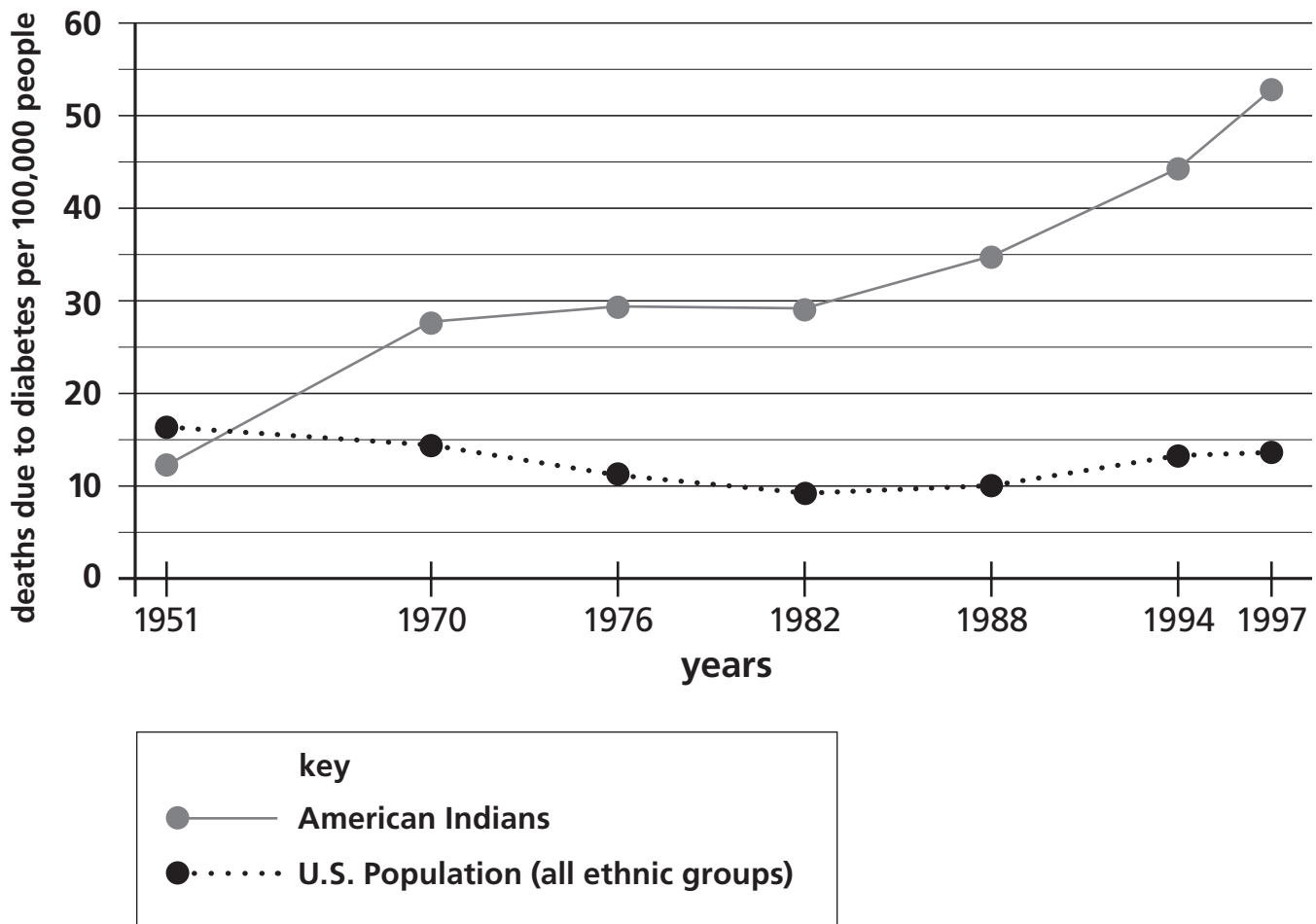
This year, our canoe club is going to go to New Zealand to compete in the World Championship Outrigger Sprint Races to compete against the world's best paddlers. I feel very honored to have the privilege to compete in this race. In the past, we have traveled to various places, like Australia, Hawaii, Fiji, and have made it as far as the semi finals, so considering we are up against the "best of the best", I think that is pretty darn good. Our canoe club trains very hard. We train each day, which includes paddling anywhere from one to two hours and running 3–5 miles a day and competing on the weekends. Also, we follow our traditional ways, by paddling in the traditional war canoes, and we avoid drugs and alcohol and tobacco. The canoe season begins in February, and some of us train until October.





4.1

Deaths Due to Diabetes





4.2

Summarizing Change

Part 1

Directions: *Work with your team members to identify changes that the author discusses in the story.*

Which story did you read? _____

In the story, the author discusses change. What is the change that occurred? _____

Risk Factor	Before	After
Age		
Ethnicity		
Family history		
Physical activity levels		
Obesity		

After reading your story and completing the chart, work with students who have read the other story. Add information about the other story to your chart.





4.2

Summarizing Change

Part 2

Directions: Consider how your life today is different from what is in the stories. Predict how the changes may have contributed to the risk for developing type 2 diabetes. Be sure to explain your point of view.

Risk Factor	How Is Life in Your Community Today Similar to or Different from the Situations Presented in Either Catherine's or Larry's Story?	How Do the Changes Discussed in the Stories or the Differences between the Situation in Stories and Your Life Today Influence the Risk for Type 2 Diabetes?
Age		
Ethnicity		
Family history		
Physical activity levels		
Obesity		

After reading your story and completing the chart, work with students who have read the other story. Add information about the other story to your chart.

page 2 of 2





4.3

Catherine's Story

One way to understand the onslaught of diabetes is to see the changes that have occurred through the eyes of a person who is a member of an afflicted population. Catherine Howard is a Dakota Sioux and member of the Spirit Lake Nation, Fort Totten, North Dakota.

Based upon a visit with her sister Christine Cavanaugh, who was born in 1921, here is Catherine's story:

Many years ago, there wasn't any diabetes on the reservations, but there was tuberculosis (TB). TB killed most of the Dakota Nation. The Indians started to get commodities from the U.S. government. The Indians called it commodities not surplus. And that's when they noticed that diabetes started on the reservations. Diabetes spread like wildfire, killing many Dakotas because some had nothing to eat but

commodities. Salt pork was given out that had to be boiled before it could be eaten because it was so salty. Pork fat was also distributed so families could make lard. The lard from pork fat was better than the lard distributed. Before commodities came to the reservation, Dakotas hunted and ate wild game. They planted their gardens and canned their vegetables. The Dakota would hunt fresh meat every day. They worked long hours every day. Even the vegetables would be picked right before they ate. Everything was thoroughly cooked or prepared by outside fire, especially wild game. Juices of berries and the sap of trees, not sugar, were used to sweeten the food. Mothers nursed their babies and their babies never got sick. Babies were born every two years."





4.4

Larry's Story

I grew up in the 1960s and early 1970s. What I remember of my childhood years was we all had to help my mother plant a garden every year. Everyone who lived with us had to help with the garden. We always planted a big garden with lettuce, tomatoes, corn, onions, carrots, cucumbers, peas, potatoes, green beans, dill, different types of squash, and watermelon.

In addition to the garden, we also had apple and plum trees. Up until I was 10, I had to help pick chokecherries and different types of berries when they were ripe.

In late summer and early fall, or when the fruits were ripe, my mother would can, dry, or freeze the vegetables and other fruits. She would make jelly and jams, apple butter and plum butter, and other sauces.

In the summer, we would fish. During the fall and winter months, my father and uncles would hunt, and we joined them when we were old enough. At that time, hunting was to put food on the table.

The types of wild game in our freezer were mostly rabbit and deer. About once a year, one of my uncles would go hunting in Canada and would give us either moose or elk, whichever it was that he brought back. We also had pheasant, duck, and geese.

My father and two uncles raised cattle, one uncle also raised pigs, and my mother raised chickens and geese. So we had beef, pork, and chicken in the freezer, and once in a while a fresh goose.

When we were old enough to work, there was always work available. We would begin in the spring with picking rock in the fields. Over the summer and early fall, we would help with cutting and hauling hay; there were always farmers cutting hay and needing to get the bales off the field so more grass would grow to be cut.

Late summer and early fall there was harvesting work to be done hauling and storing grain. In the fall, many farmers would cut silage, and this would need to be put in silos or put in long piles on the ground. There was always work for anyone who wanted to work, whether farming or ranching.

Growing up there were no video games, computers, or internet, and on TV there were just two channels to watch, three if you were lucky, so we spent most of our free time outside playing or doing other activities.

Today, we have electronic entertainment, which contributes to the inactivity of people of all ages. There is less work on farms and ranches because the jobs have been replaced by machinery and large round or square bales. Many jobs today are sedentary or have little physical activity or exertion.

There are very few gardens, and the gardens that are planted are small, in my estimation, less than a quarter of those that we planted when I was young. It is difficult to find someone who knows how to can, dry, or prepare food for freezing or make preserves, jelly and jam, or sauces.





5.1

Overview of the Diabetes Prevention Program (DPP)

Goal of the DPP

The Diabetes Prevention Program (DPP) was a major clinical trial, or research study, aimed at discovering whether diet, exercise, and weight loss could prevent or delay the onset of type 2 diabetes in people who have a high risk of developing the disease. In the DPP, participants were randomly split into two different groups.

One group, the control group, received standard general information on lifestyle such as brief handouts. But they did not receive intensive counseling efforts on lifestyle. And they did not receive specific information about what to change and how much to change it.

Another group, the positive lifestyle change group, received intensive education, counseling, and training about specific changes in diet, exercise, and weight loss. Each person was helped and strongly encouraged to do moderate exercise 30 minutes a day, five days a week (such as brisk walking); to eat foods with less fat and to eat fewer calories overall; and to lose 7 percent of his or her weight and keep it off.

How did researchers do the DPP?

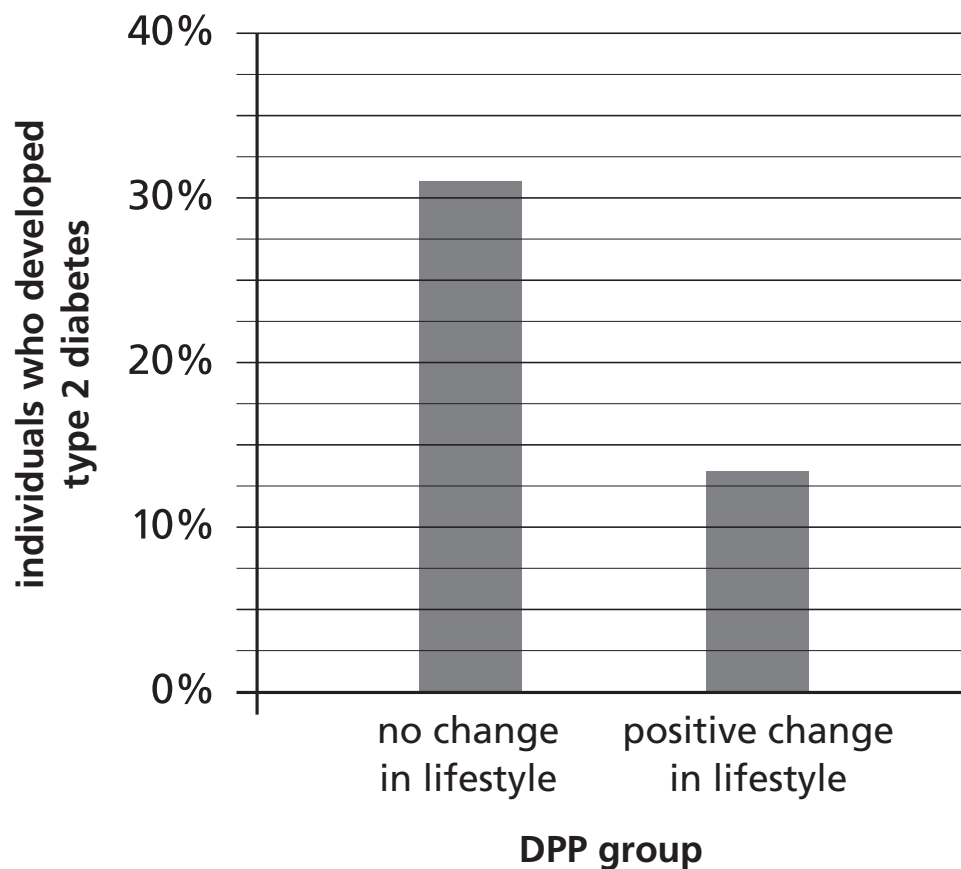
- The participants in the study did not have diabetes at the beginning of the study.
- The participants in the study were at high risk for developing type 2 diabetes.
- The scientists conducting the study assigned people randomly to one of two groups. The two groups were:
 - No change in lifestyle
 - Positive lifestyle change (increased physical activity, healthier diet, and 7 percent weight loss)
- Scientists monitored people throughout the three-year study.
- Scientists recorded the number of people in each group who developed type 2 diabetes.





5.2

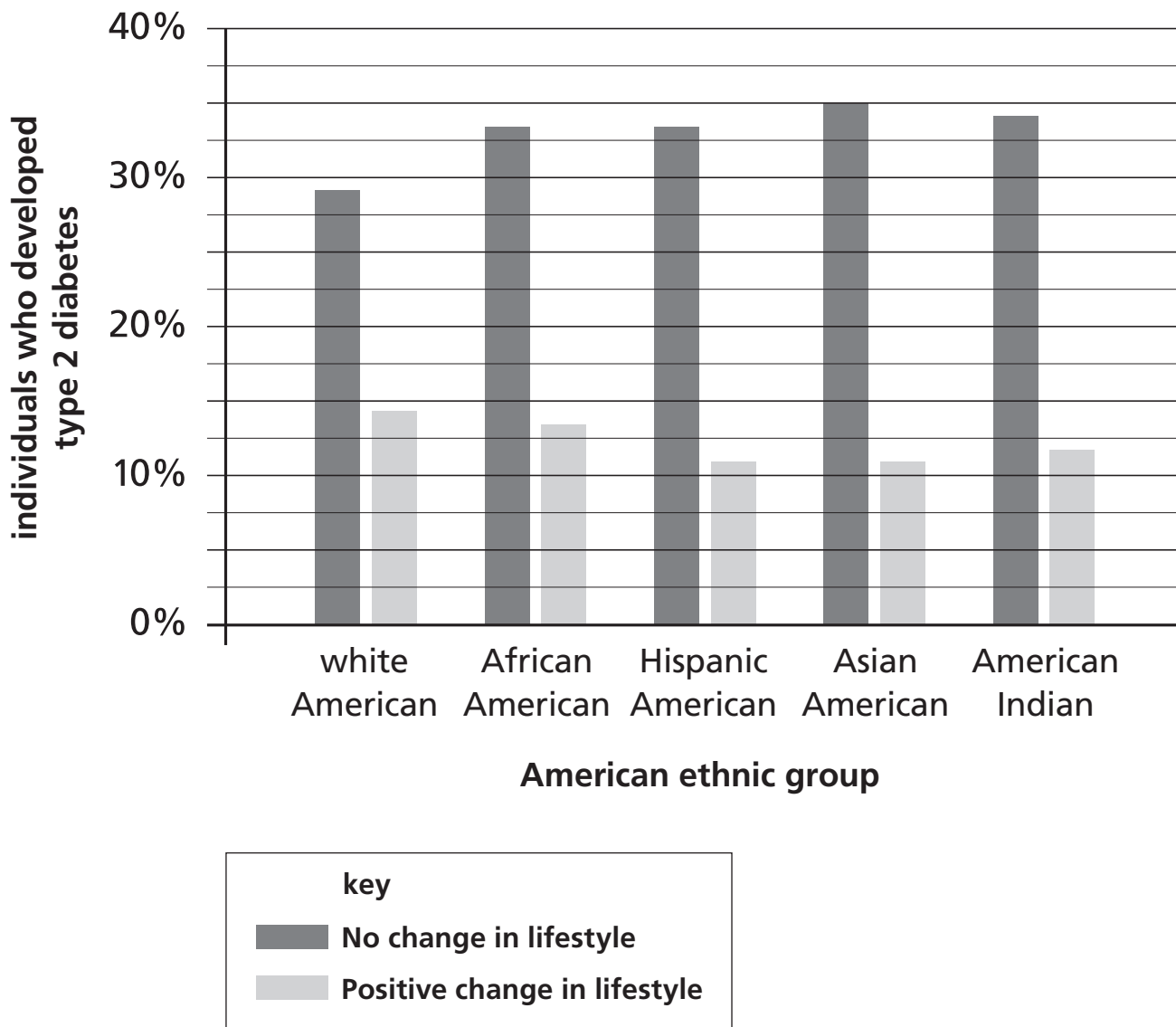
Results of the Diabetes Prevention Program (DPP): All Participants





5.3

Results of the Diabetes Prevention Program (DPP): Ethnic Groups





6.1

Philip John's Story



Philip John is a Dakota and an enrolled member of the Spirit Lake Nation, located in Fort Totten, North Dakota. Philip John was diagnosed with type 2 diabetes 15 years ago. Before he went to see his doctor, he felt tired, urinated frequently, and was thirsty all the time. His doctor

ordered a glucose tolerance test. The test showed that his body was not able to clear glucose from his blood in a normal fashion, and Philip John was diagnosed with type 2 diabetes. His doctor ordered him to start taking pills six times a day.

In the beginning, Philip John did not want to believe he had type 2 diabetes, but the symptoms and the doctor's diagnosis were clear. His doctor asked him to start exercising, take pills, and to change his diet. Philip John decided to get more information so he went to the library to read about type 2 diabetes. He found out that increased physical activity would help to bring his body back into balance, so he went to the fitness center and started a regimen of walking on the treadmill

three times a week. He also changed his diet according to his doctor's advice. He stopped drinking soft drinks and he ate smaller meals at regular intervals during the day. He also eliminated fatty foods from his diet. As a result of this, he started losing the excess weight he was carrying around.

His doctor was monitoring his health with regular checkups every three months in the beginning. After a few visits to his doctor's office, his doctor sat Philip John down and showed him two charts. The first one was the initial one that was charted during his first visit, the second one was his latest. Philip John could see the changes in his blood sugar levels before and after he changed his activity level and diet. Looking at the charts, Philip John realized that he could help himself with simple lifestyle changes in diet and exercise. He continued to exercise and modified his diet even further to include more vegetables, fruits, water, and lean meats. Eventually, his doctor reduced the number of pills he had to take daily.

It has been three years since Philip John took any pills. Now he controls his type 2 diabetes through physical activity and a healthy, balanced diet.





6.2

Rubric for Evaluating the Project

Category	Excellent (5 Points)	Good, But Could Be Improved (3 Points)	Needs a Lot of Improvement (1 Point)
The project has a clear idea or message.	<ul style="list-style-type: none"> The main message of the project is very clear. The project focuses on a single idea. 	<ul style="list-style-type: none"> The main message of the project is somewhat clear. The project's theme is correct, but it includes more than one main idea. 	<ul style="list-style-type: none"> The main message of the project is not clear at all. The ideas are not focused on a single theme. The project tries to include too many different ideas.
The project's message is important for people to know.	<ul style="list-style-type: none"> The main message is very important for people to understand. 	<ul style="list-style-type: none"> The main message is somewhat important for people to understand, but not the most important thing. 	<ul style="list-style-type: none"> The message is only slightly important for people to understand.
The project includes accurate information.	<ul style="list-style-type: none"> The message of the project is supported by many facts. The facts that support the message are accurate. 	<ul style="list-style-type: none"> Some important facts that would support the idea are missing. Some of the facts are not accurate. 	<ul style="list-style-type: none"> The project does not include facts to support the idea. Most of the facts that support the message are not accurate.
The project is well written.	<ul style="list-style-type: none"> There are no spelling or grammar errors in the project. 	<ul style="list-style-type: none"> There are only a few spelling or grammar errors in the project. 	<ul style="list-style-type: none"> There are many spelling and grammar errors in the project.
The project makes good use of the media.	<ul style="list-style-type: none"> The project is appropriate to the media being used. The project uses visual (art and color), audio, or both techniques effectively. The project is engaging. 	<ul style="list-style-type: none"> The use of media could be improved. The project is somewhat engaging. 	<ul style="list-style-type: none"> The project does not use media well. The project is not engaging.





6.3

Project Score Sheet

Name _____ Date _____

Directions: When you evaluate a project, use the rubric to score each category. Enter your score for each category on this form. Then give a specific reason (or reasons) why you assigned that score.

ID code for the project I am evaluating is _____.

Category	Score	Reason for Score (Give specific reasons or examples to explain the score that you gave for each category. If a statement is wrong, indicate what it should say to be correct.)
The project has a clear idea or message.		
The project's message is important for people to know.		
The project includes accurate information.		
The project is well written.		
The project makes good use of the media.		
Total score _____		





6.3

1. What is the best thing about this project?

2. What suggestions do you have for improving this project?





6.4

Has My Understanding of Type 2 Diabetes Changed?

1. What do you know about diabetes?
2. Who gets diabetes?
3. How did you learn what you know about diabetes? Please explain.
4. How does diabetes affect someone's life? Give one or more examples.
5. Is diabetes a problem for our community? Please explain and give examples.
6. Do you think diabetes is something you should be concerned about? Explain your answer.

