



Episode Four: Bad Sugar

THE MYSTERY: Why do the Tohono O'odham and Achimel O'odham (Pima) tribes in Arizona have some of the highest rates of Type 2 diabetes in the world?

THEMES:

1. Poverty, oppression, disempowerment and 'futurelessness' are health threats
2. Diabetes rates are disproportionately high among Native American tribes who have been deprived of their traditional livelihoods and way of life.
3. Community self-determination can be an important health promoter.

COMPREHENSION QUESTIONS:

- What is Type 2 diabetes? How do people get it? What are the health consequences, and why is it so difficult to manage?
- Worldwide, which populations tend to have the highest rates of Type 2 diabetes? What do these groups share in common with the O'odham tribes or with each other?
- What happened to the Pima tribe's water? What impact did the loss of water have on their prosperity, culture and way of life? Who benefited from their loss?
- Shortly after the dams were built, the U.S. military began distributing free commodity foods. What types of foods were distributed? When were fresh fruits and vegetables introduced? What has been the impact on health? How did fry bread become Native American "tradition"?
- How did the Pima regain their water rights? What has this accomplishment meant to the Pima? Why does Dr. Don Warne think that it might help the Pima become healthier?
- Researchers have spent decades and several millions of dollars studying diabetes among the Pima and Tohono O'odham tribes. Why hasn't their research yielded a genetic explanation for the high rates of the disease? Why, despite three decades of medical research, have diabetes rates among the Pima and Tohono O'odham continued to climb?
- Terrol Dew Johnson says: "A lot of people in my family and around me have diabetes. Somehow, I always thought well, ok, that's just part of growing up."
 - What is the relationship between disempowerment, the uprooting of Native Americans cultural traditions and health?
 - How do poverty, oppression and chronic stress affect diabetes susceptibility?

DISCUSSION QUESTIONS:

- Why do you think so much money and attention goes towards genetic research rather than towards improving social conditions?
- Prior to viewing this film, what media coverage have you read, seen or heard about diabetes or about groups with high rates of a particular disease? Do most media stories frame the issue in terms of social determinants or do they rely on genetic and behavioral explanations? Why? How do you think media stories influence policy decisions and what should be done?
- Dr. Warne says that as part of his treatment for diabetes he “might like to prescribe affluence.” Why? How can affluence improve health opportunities for someone with limited means who is diabetic?
- Dr. Warne suggests that chronic stress can increase the risk of diabetes. List some stressors that might be affecting the health of your community. What is their history?
 - What kinds of policies might community groups or government advocate for to help alleviate or eliminate those stressors?
 - How can community members who want to include health equity as a policy goal participate in the decision-making process?
- As in Arizona, communities everywhere make choices about land use and resources – often benefiting some and disadvantaging others in relation to wealth and health.
 - In your community, what key land-use decisions have had an impact on health?
 - Who has benefited or been disadvantaged by these decisions?
 - Who makes these kinds of decisions and how?

SUGGESTED ACTIVITY: TAKING CONTROL

Dr. Warne says that control over one's life “has an impact on self-identity and one's sense of hope for the future.” What do we need in order to feel hopeful about our futures?

1. As individuals or in small groups, have participants make a list of things that cause worry, concern and anxiety about your future or that of your children. Encourage them to think of examples that are both personal/immediate and that reflect their broader economic, social and physical environments.
2. Have them cluster items into themes or areas, then select 3-5 themes to work with.



- Photocopy and distribute the chart below. (We recommend creating your own document using the categories below or your own.)
- Have participants list their selected themes in the left column, then ask them to consider what changes on the individual, community, state and federal level might make a positive difference for each theme/area of concern and write their answer(s) in the box that corresponds to the category and level.
- At the end of the activity, have each group present its work and talk about how the activity made them feel (more or less hopeful). As a large group, discuss the ideas that made people feel most hopeful or that might give people the most control over their lives. Brainstorm suggestions for next steps.

List Themes Below:	Community	Social Policy	Individual

WEB SITE TIPS:

Online Activity: See a [slideshow](#) of Terrol's photographs.

Web-Exclusive Video: Watch video clips about **community efforts to improve health**, including **Tohono O'odham Community Action** (co-founded by Terrol Dew Johnson). Hear Dr. Warne talk about the impact of cultural loss on health, the history of **federal Indian policies**, and more.



KEY REFERENCES:

The Pima-Maricopa Irrigation Project Web site includes background information and excellent educational materials on the loss of Gila River water and the history of the 2004 Water Settlement Act: www.gilariver.com/education.htm

Arrillaga, Pauline. "Liquid Gold." Associated Press, 2002.

"Arizona Water Rights Settlement Act 2004." Text available on the Web site of the Library of Congress: <http://thomas.loc.gov/cgi-bin/query/D?c108:2::temp/-c108Rp3zoT>

A full list of publications about diabetes, including diabetes in other minority communities, is available at the Web site of the National Diabetes Information Clearinghouse: <http://diabetes.niddk.nih.gov/dm/a-z.asp>

Pember, Mary Annette. "For Tribes, Tradition May Be Key to a Healthier Future," *Washington Post*, April 9, 2002. http://www.child-family.umd.edu/works_pember.htm

The Pima Indians: Pathfinders for Health. Washington, DC: National Institute of Diabetes and Digestive and Kidney Diseases of the National Institute for Health, 2002. Available at <http://diabetes.niddk.nih.gov/dm/pubs/pima/index.htm>

Syme, Leonard. "Rethinking Disease: Where Do We Go From Here?" *Annals of Epidemiology*, 6 (1996):463-468.

Tohono O'odham Community Action: www.tocaonline.org

USDA's Legislative History of Food Distribution Programs is available at http://www.fns.usda.gov/fdd/aboutfd/fd_history.pdf. The report includes links to each federal food program.

From the film:

- The Tohono O'odham and Pima Indians of southern Arizona have the highest rate of Type 2 diabetes in the world.
- In upscale Scottsdale, Arizona, the diabetes rate is approximately 5%. In working class Bullhead City, the rate is approximately 11%. On several Arizona Native American reservations the rate is 50% - 7 times the national average.
- In 1902, a survey found only one case of diabetes among the Pima. Within 30 years of building the Coolidge Dam, there were over 500 cases.
- Over half of Pima and Tohono O'odham Indians live below the poverty line.
- Prior to 1999, the U.S. Commodity Supplemental Food Program – which supplies many Native American reservations – included no fresh produce.