

# UNNATURAL CAUSES

...is inequality making us sick?

Produced by California Newsreel with Vital Pictures. Presented by the National Minority Consortia.  
Public Engagement Campaign in Association with the Joint Center for Political and Economic Studies Health Policy Institute.

## Bad Sugar

TRT 29 min

Time Codes offset 1:07

*Opening scene: shots of water falling*

**DIET AND EXERCISE, DRUGS AND MEDICAL CARE...THESE ARE WHAT WE USUALLY ASSOCIATE WITH HEALTH.**

**BUT WHAT WE DON'T THINK ABOUT ARE STRUCTURES.**

**NOT JUST PHYSICAL STRUCTURES. BUT ECONOMIC, POLITICAL AND SOCIAL STRUCTURES...THEY MAY BE HARD TO SEE, YET THEY CAN BE POWERFUL DETERMINANTS OF OUR HEALTH.**

0:27

*Sign of Tohono O'odham reservation*

TERROL DEW JOHNSON V/O:

We've been doing a series of photos for a book...I never get tired of taking pictures of the desert.

*Terrol preparing camera; Tracking shot of desert*

**TERROL DEW JOHNSON IS A MEMBER OF THE TOHONO O'ODHAM AMERICAN INDIAN TRIBE. TERROL IS AN ARTIST AND AN ACTIVIST ON THE RESERVATION SOUTH OF PHOENIX, ARIZONA.**

0:55

TERROL DEW JOHNSON O/C and V/O:

How was Hopi? What'd you guys do?

**FOR THE LAST FORTY YEARS<sup>1</sup>, THE TRIBE HAS SUFFERED THE HIGHEST RATE OF TYPE II DIABETES IN THE WORLD<sup>2</sup>.**

*Snapping photos of abandoned home with girls*

**HALF OF TOHONO O'ODHAM ADULTS HAVE TYPE II DIABETES...<sup>3</sup>**

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<sup>1</sup> Email from Tristan Reader, Tohono O'odham Community Action, 11.27.06

<sup>2</sup> Email from Tristan Reader, TOCA, 11.27.06, "USDA Community Food Project Grantee Organization Profile," Food Security Learning Center

<sup>3</sup> Ibid

TERROL DEW JOHNSON O/C:  
She died.

**MORE THAN SEVEN TIMES THE NATIONAL AVERAGE. <sup>4</sup>**

*Snapshot of little girl in tire swing*

**RATES FOR CHILDREN ARE CLIMBING RAPIDLY. <sup>5</sup>**

*Terrol walking with little girl outside*

TERROL DEW JOHNSON O/C:  
Are you staying with grandma? Go with them...you're going to go to the party. You can go swim. We'll see you later. Bye you guys.

*Blue sky with clouds*

1:30

**FOR HUNDREDS OF YEARS, THE O'ODHAM LIVED SELF-SUFFICIENTLY ON TEPARY BEANS, CHOLLA BUDS, LOCAL GAME,**

*Wide landscape shot*

**CROPS IRRIGATED BY RAIN AND GROUND WATER. THEIR WAY OF LIFE KEPT THEM HEALTHY.**

*Barren land*

**TODAY, THAT HAS CHANGED.**

*Terrol photographing old man outside of house*

1:53

TERROL DEW JOHNSON V/O:  
Danny, I was just asking people when I was taking pictures of them, how diabetes affects them. If it does affect them. What their thoughts are about that.

*Danny sitting in chair being photographed*

2:15

DANNY LOPEZ V/O:  
I think some people they get kind of depressed. Somebody had stated well

**LOWER THIRD:** DANIEL LOPEZ  
Tohono O'odham Elder

DANNY LOPEZ, O/C:  
my mom and my sister say I have diabetes so, I'll probably get it anyway. So that kind of, that attitude that you know, that you're going to eventually going to get it, you know.

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<sup>4</sup> -American Diabetes Association, "Total Prevalence of Diabetes & Pre-Diabetes", printed on 10/4/06 and CDC, National Diabetes Fact Sheet, 2005, (7.0% of the population have diabetes)

<sup>5</sup> "Increasing prevalence of Type II diabetes in American Indian children", National Institute of Diabetes and Digestive Kidney Diseases, National Institutes of Health, Diabetologia (1998) 41:904-910, Phoenix. AZ

-Conversation with Dr. Bogardus, 11.7.06 (KT)

*Close up of Danny's glasses*

TERROL DEW JOHNSON, V/O:  
A lot of people in my family

*LOWER THIRD:* TERROL DEW JOHNSON  
Artist/Activist

TERROL DEW JOHNSON, O/C:  
and around me have diabetes. Some...somehow, I always thought well, ok, that's just part of growing up.

*Stills of accordion player & family at grave*

TERROL DEW JOHNSON V/O:  
But, they never said they had diabetes. They've always said that I just have bad sugar. I've actually had family members die on the operating table during the process of an amputation.

*Danny being photographed in chair*

*2:44*

DANNY LOPEZ, O/C:  
He lost his leg.

TERROL DEW JOHNSON , O/C:  
Oh, he did!

DANNY LOPEZ, O/C:  
A couple of weeks ago. Yeah.

TERROL DEW JOHNSON , O/C:  
Oh no.

DANNY LOPEZ, O/C:  
He was at the Elder's Conference. He was in the wheelchair.

TERROL DEW JOHNSON V/O:  
A lot of peoples still don't know.

*Reservation Map*

*Arizona highway in desert, zoom on sign of Tohono Reservation*

**FURTHER NORTH IS THE GILA RIVER RESERVATION, HOME TO THE PIMA.**

*3:08*

HENRIETTA LOPEZ V/O:  
We're the same O'odham tribe, it's just that

*LOWER THIRD:* HENRIETTA LOPEZ  
Public Involvement Specialist  
Pima-Maricopa Irrigation Project

HENRIETTA LOPEZ O/C:

They're desert people, which is To'hono. And we're Achimel O'odham which means we live by the river.

*Henrietta with colleague pointing at an irrigation canal*

HENRIETTA LOPEZ O/C:

See where those little mountains are at? The river is just on the south...probably at the base of that mountain there.

### **HENRIETTA LOPEZ WORKS WITH THE PIMA-MARICOPA IRRIGATION PROJECT.**

*Reverse of Henrietta talking to a colleague*

HENRIETTA LOPEZ O/C:

At that point there, they diverted out of the river and into a canal like this, OK.

*Tracking shot of highway above the canal*

3:33

HENRIETTA LOPEZ V/O:

This is what we call the Pima Canal. You know, connecting to the river...

*Irrigated farmland*

### **HER PIMA ANCESTORS WERE MASTER WATER ENGINEERS. OVER THE CENTURIES, THEY TRANSFORMED THE DESERT INTO FARMLAND IN THE GILA RIVER BASIN.<sup>5A</sup>**

*Vegetation surrounding a water basin, shots of river*

3:48

HENRIETTA LOPEZ V/O:

Living along the river meant our life. It was a part of us. Having the river flowing through our community meant having natural vegetation growing along the river...

HENRIETTA LOPEZ O/C:

...the willow, the mesquite, the cotton wood trees.

*Tilt of irrigated farmland*

HENRIETTA LOPEZ V/O:

I don't believe that really the non-Indian world understands how we're tied to the water. But, water is our life.

4:15

### **THOSE WERE HEALTHIER TIMES FOR THE PIMA. BUT WITHIN TWO SHORT GENERATIONS, THEY, LIKE THE TOHONO O'ODHAM, BEGAN DYING FROM TYPE II DIABETES.<sup>5B</sup>**

*Dr. Peter Bennett entering office, turning on lights, displaying records*

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<sup>5A</sup> Email from Jim Fortier, 3/5/07

<sup>5B</sup> See Fact 29: Bennett, Peter H, "Type 2 diabetes among the Pima Indians of Arizona: An Epidemic attributable to environmental change?", *Nutrition Review*, May, 1999; email from Dr. Peter Bennett, 1/12/07  
ALSO SEE: Pratley, Richard E., "Gene-environment interactions in the pathogenesis of type 2 diabetes mellitus: lessons learned from the Pima Indians," *Proceedings of the Nutrition Society* (1998), 57, 175-181.

DR. PETER BENNETT O/C:  
Most of our records are computerized....

LOWER THIRD: NIH RECORDS ROOM  
Phoenix, AZ

**FOR YEARS, THE MEDICAL COMMUNITY BELIEVED PIMA SUSCEPTIBILITY TO DIABETES WAS AN ANOMALY.** 4:40

**THAT SOMETHING IN THEIR BIOLOGY WAS UNIQUE.** <sup>6</sup>

DR. PETER BENNETT O/C:  
...these are files that are being collected from our longitudinal studies.

*Close up of records*

**THE NATIONAL INSTITUTES OF HEALTH COLLECTED HUNDREDS OF THOUSANDS OF PIMA BLOOD SAMPLES, TISSUE BIOPSIES, AND MEDICAL HISTORIES.** <sup>7</sup>

*Dr. Peter Bennett describing records*

DR. PETER BENNETT O/C:  
Our collection of EKGs...

*Dr. Peter Bennett at the office*

**DR. PETER BENNETT HAS DEVOTED MOST OF HIS PROFESSIONAL LIFE TO STUDYING DIABETES AMONG THE PIMA.** 5:10

*Medical convention center*

**AFTER 40 YEARS, 200 MILLION DOLLARS WORTH OF RESEARCH HAS INCREASED OUR UNDERSTANDING OF THE BIOCHEMISTRY OF DIABETES.** <sup>8</sup> **BUT NEITHER THE CAUSE NOR A CURE HAS BEEN DISCOVERED.** <sup>9</sup> **AND RATES AMONG THE PIMA, CONTINUE TO RISE.** <sup>10</sup>

*Close-up of hands handling test tubes*

5:28

**LIKE MANY RESEARCHERS, BENNETT NOW TURNS HIS ATTENTION TO GENES FOR ANSWERS.**

*Dr. Peter Bennett address a researcher*

DR. PETER BENNETT O/C:  
So, how's it going?

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<sup>6</sup> Kidney Disease of Diabetes in the Pima Indians, NIDDK  
<http://diabetes.niddk.nih.gov/dm/pubs/pima/kiddis/kiddis.htm>

-email from Dr. Bennett, 1/8/07

<sup>7</sup> -email from Dr. Bennett, 1/8/07; email from Marcia Vital, National Institute of Health, 12/15/06

<sup>8</sup> email from Marcia Vital, National Institute of Health, 9.28.06

<sup>9</sup> Luo, T.H.; Zhao, Y., et al, "A genome wide search for Type II diabetes susceptibility genes in Chinese Hans"; *Diabetologia* (2001) 44: 501-506; Dr. Bennett reiterates directly following; Conversation with Dr. Bogardus, 11.7.06 (KT)

<sup>10</sup> Conversation with Dr. Bogardus, 11.7.06 (KT)

*Interview with Dr. Peter Bennett*

DR. PETER BENNETT V/O:

The genetics of diabetes has turned out to be really quite complicated.

*LOWER THIRD:* PETER BENNETT, MD  
Scientist Emeritus  
National Institutes of Health

DR. PETER BENNETT O/C:

It appears that there are not just one or even two genes involved in the pre-disposition.

*Close-up of hands preparing test tube with syringe, researcher*

DR. PETER BENNETT V/O:

In fact, today, we still don't know what combinations of gene abnormalities

DR. PETER BENNETT O/C:

really lead to very high risk of the disease.

5:53

*Newspaper article: Chinese Hans*

*Newspaper article: Finns*

**BUT RESEARCH HAS SHOWN THAT WHATEVER GENES MIGHT INCREASE THE RISK OF DIABETES ARE IN FACT FOUND THE WORLD OVER,**

*Newspaper article: French Caucasians*

**NOT JUST AMONG THE PIMA.<sup>11</sup> AND WHETHER THEY HAVE THE GENES OR NOT,**

**SOME POPULATIONS DO HAVE A HIGHER INCIDENCE OF DISEASE.<sup>12</sup>**

*Dr. Peter Bennett examining computer screen*

6:12

DR. PETER BENNETT O/C:

Very, very dramatic figures. These are not our own data but from a paper a couple of years ago.

*Crowded ferry*

**NARRATION:  
PACIFIC ISLANDERS,**

*Urban street*

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<sup>11</sup>Luo, T.H.; Zhao, Y.; Li, G; Yuan, W.T.; Zhao, J.J.; Chen, J.L.; Huang, W.; Luo, M.; "A genome wide search for Type II diabetes susceptibility genes in Chinese Hans"; *Diabetologia* (2001) 44: 501-506; Conversation with Dr. Bogardus; Articles in Film

<sup>12</sup>Pratley, Richard E., "Gene-environment interactions in the pathogenesis of type 2 diabetes mellitus: lessons learned from the Pima Indians," *Proceedings of the Nutrition Society*, (1998), 57, 175-181; Articles in Film

**AFRICAN AMERICANS,**

*Close-up of blood pressure being taken*

**ABORIGINAL PEOPLES IN AUSTRALIA, ALL SUFFER FROM TYPE TWO DIABETES AT RATES DOUBLE OR TRIPLE THE NATIONAL AVERAGES.<sup>13</sup>**

6:32

*Shots of African-American construction worker, Food stand, two Marshallese children*

LEONARD SYME V/O:

They have totally different histories. They are all different populations,

LEONARD SYME O/C:

and yet they all have the same manifestation...what's going on?

*Traditional Indian American ceremony*

LEONARD SYME O/C:

What's the common denominator? And in every case, we're talking about people who have been dispossessed of their land and of their history. They haven't been able to re-create it.

*Interview with Leonard Syme*

LOWER THIRD: S. LEONARD SYME  
Epidemiologist  
UC Berkeley

6:54

LEONARD SYME O/C:

In all these far-flung parts of the world the social circumstance of being ripped from roots ends up with the same manifestation of disease.

*Dilapidated home on Tohono O'odham Reservation*

TERROL O/C:

This used to be where my sister and I and all the kids slept in...and the room next door was...it was a two bedroom place, you know...

*Terrol taking photos of eroding wall of home*

7:15

**FOR THE TOHONO O'ODHAM AND MANY OTHERS ACROSS THE GLOBE... LAND, CULTURE AND WORK... VANISHED IN THE LAST CENTURY.**

*Two photos of dilapidated home*

TERROL O/C:

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<sup>13</sup> CDC National Diabetes Fact Sheet; Unnatural Causes, Pacific Islanders program – “rate of diabetes in MI is close to 30%”; Diabetes Australia, Diabetes Fact Sheet: “Australia’s indigenous population suffers the fourth highest rate of Type 2 diabetes in the world.”

No indoor plumbing. We used to take our showers, cook, and umm, clean. And this was our only source of water.

*Terrol taking photos of cooking utensils and wooden frame of home* 7:36

**TODAY, OVER HALF THE PIMA AND THE TOHONO O'ODHAM LIVE BELOW THE POVERTY LINE.**<sup>14</sup>

*Terrol walks away from dilapidated house* 7:45

**THIS CONDITION IS THE REAL RISK FACTOR FOR DIABETES FOR DOCTOR DONALD WARNE.**

*Interview with Dr. Donald Warne*

LOWER THIRD: DONALD WARNE, M.D.  
President & CEO  
American Indian Health Management & Policy

DR. DONALD WARNE O/C:  
Well, I went into my modern medical training kind of naively thinking that I was gonna make an impact on Indian health as a primary care physician.

*Dr. Donald Warne examines x-ray images*

**WARNE HAS TREATED NATIVE AMERICAN TRIBES IN ARIZONA FOR YEARS. HE'S ALSO A HEALTH POLICY CONSULTANT FROM A FAMILY OF LAKOTA TRADITIONAL HEALERS.**<sup>14A</sup>  
8:11

DR. DONALD WARNE V/O:  
...and in truth, it can have an impact on the individual's lives and their healthcare.

DR. DONALD WARNE O/C:  
And that's very significant and meaningful. But the health problems occur long before people get to the clinic or to the hospital.

*HEX Animation* 8:22

**WHEN DR. WARNE'S PATIENTS HAVE TYPE II DIABETES, THEIR BODIES MAKE THE INSULIN NEEDED TO CONVERT GLUCOSE—OR BLOOD SUGAR— INTO ENERGY BUT THE INSULIN ISN'T USED EFFICIENTLY. GLUCOSE THEN BUILDS UP IN THEIR BLOOD STREAM AND CAN CHOKE OFF SMALL BLOOD VESSELS.<sup>15</sup> LEADING TO BLINDNESS, KIDNEY FAILURE, AMPUTATION.<sup>16</sup>**

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<sup>14</sup>Council of Indian Nations, Northern Arizona University, Center for American Indian Economic Development, Flagstaff, AZ 86011-5066, (928) 523-7320; TOCA, Food Security Learning Center, USDA Community Food Project Grantee Organization; US Census Bureau

<sup>14A</sup> email from Dr. Donald Warne, 6/15/07

<sup>15</sup> - Facts 15-20, Checked by Medical Advisors James Head & Judith Saide; American Diabetes Assoc.

"Hyperglycemia," <http://www.diabetes.org/type-2-diabetes/hyperglycemia.jsp>, 1 Nov 2006

<sup>16</sup> American Diabetes Assoc. "Type 2 Diabetes Complications," <http://www.diabetes.org/type-2-diabetes/complications.jsp>, 8 Nov 2006



*Surgeons operating on patient*

*Close-up of menu at Pima dining hall*

**DIETS HIGH IN SUGAR, FAT AND CARBOHYDRATES CAN ELEVATE GLUCOSE LEVELS.<sup>17</sup>**

*Close-up of tongs grabbing fried food*

**BUT SOMETHING ELSE INCREASES THOSE LEVELS AS WELL...**

*Tracking shot of Pima reservation*

8:59

DR. DONAL WARNE V/O:

There is a direct biochemical connection between living in poverty and the stress that people are under and blood sugar control.<sup>18</sup>

DR. DONAL WARNE O/C:

When we look at measures of stress we look at different types of hormones like cortisol or epinephrine, which is adrenalin. All of those chemicals increase blood sugar.<sup>19</sup>

**AND WHEN STRESS HORMONES REMAIN HIGH, THEY CONTINUE TO TRIGGER PRODUCTION OF GLUCOSE. GLUCOSE BUILDS UP IN THE BLOODSTREAM, LEADING TO DIABETES.<sup>20</sup>**

9:32

*Dr. Warne turns off X-Ray*

*New York Times article*

**DIABETES IN AMERICA HAS REACHED EPIDEMIC PROPORTIONS.<sup>20A</sup> WE SPEND OVER \$132 BILLION DOLLARS A YEAR TO TREAT IT.<sup>20B</sup> OBESITY IS A RISK FACTOR, AND A THIRD OF US ARE OBESE.<sup>20C</sup> BUT THE OTHER CRITICAL RISK FACTOR IS LOW INCOME.**

*Diabetes income chart*

**AMERICANS IN THE LOWEST INCOME BRACKETS ARE AT LEAST TWICE AS LIKELY THAN THOSE IN THE HIGHEST TO BECOME DIABETIC.<sup>20D</sup>**

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<sup>17</sup> Centers for Disease Control. "Physical Activity and Good Nutrition" <http://www.diabetes.org/type-2-diabetes/complications.jsp>. 17 July 2006

<sup>18</sup> Kelly, WF; Mahmood, R; Turner, S; Elliott, K; "Geographical mapping of diabetic patients from the deprived inner city shows less insulin therapy and more hyperglycaemia," *Diabetic Medicine*; 1994 May; 11(4):344-8; Holben, DH; Pheley, AM; "Diabetes risk and obesity in food-insecure households in rural Appalachian Ohio," *Preventing Chronic Disease*, 2006 Jul;3(3):A82. Epub 2006 Jun 15.; Hopper SV, Scechtman, KB; "Factor Associated with diabetic control and utilization patterns in a low-income, older adult population," *Patient Educ Couns*. 1985 Sep;7(3):275-88.

<sup>19</sup> WebMD. [http://www.webmd.com/content/pages/10/1667\\_50239.htm](http://www.webmd.com/content/pages/10/1667_50239.htm) citing Diana W. Guthrie, R.N., Ph.D., and Richard A. Guthrie, M.D. *From The Diabetes Sourcebook: Today's Methods and Ways to Give Yourself the Best Care*. Los Angeles: Lowell House, 1999

<sup>20</sup> Ibid

<sup>20A</sup> American Diabetes Association, "Total Prevalence of Diabetes & Pre-Diabetes", printed on 10/4/06, CDC, National Diabetes Fact Sheet, 2005

<sup>20B</sup> CDC, National Diabetes Fact Sheet, 2005

<sup>20C</sup> CDC, National Center for Health Statistics, "Obesity Still a Major Problem," Fact Sheet, April 14, 2006, [www.cdc.gov/nchs/pressroom/06facts/obesity03\\_04.htm](http://www.cdc.gov/nchs/pressroom/06facts/obesity03_04.htm)

*Pima children play basketball*

**DR. WARNE MIGHT LIKE TO PRESCRIBE AFFLUENCE, BUT INSTEAD, HE PRESCRIBES A CHANGE OF DIET, MORE EXERCISE, AND IF THIS FAILS, MEDICATION AND INSULIN INJECTIONS.**

*Close-up of photos of Terrol's sister preparing and injecting insulin on computer screen*

TERROL DEW JOHNSON V/O:

That's a picture of my sister. She has to take two shots of the syringes. She has to fill them up to the max and she takes them on both sides of her belly. And her doctors said that her kidneys will go. But she told me that, with this amount, I'm alright for right now, she said. Which really bummed me out, I was sad.

*Interview with Terrol*

10:40

TERROL O/C:

I'm a diabetic, I found out in 96.

*Photos on computer screen of pills and Terrol taking them*

TERROL V/O:

And so they gave me some pills and boom. You know, I was stamped and approved and put on that list of diabetics in the native community.

## **ACT TWO**

*Images of Battles, mass graves*

**THE GENOCIDE OF NATIVE AMERICAN PEOPLES MAY BE A FAMILIAR STORY, BUT ITS UNFOLDING VARIED FROM TRIBE TO TRIBE AND PLACE TO PLACE. TO UNDERSTAND ITS CONTINUING IMPACT ON THE HEALTH OF THE PIMA TODAY, WE NEED NOT LOOK FAR BEYOND ONE SERIES OF EVENTS.**

11:27

*Close-ups on farm hoe*

ROD LEWIS V/O:

There is direct connection between the diversion of water in the upper Gila River...and the health status and economic status of the Pimas and Maricopas....<sup>21</sup>

*Arizona plain*

**LOWER THIRD:**           ROD LEWIS  
Former General Counsel  
Gila River Indian Community

ROD LEWIS O/C

In the 1890s, water simply stopped coming down the Gila River.<sup>22</sup>

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<sup>20D</sup> NHANES, 1999-2004

<sup>21</sup> Email from Lucius Kyyitan, 11.7.06

*River Diversion Map*<sup>22A</sup>

**UPSTREAM, WATER FROM THE GILA WAS DIVERTED BY DAMS & WATER PROJECTS, GIVING WHITE SETTLERS, FARMERS, RANCHERS AND MINING INTERESTS THE WATER THEY NEEDED.**

<sup>23</sup>

*Historical NARA photographs of farmers*

ROD LEWISH V/O:

And we were depended on that water to grow crops, to provide for ourselves.

11:57

**NOT EVEN THE 1908 SUPREME COURT DECISION UPHOLDING WATER RIGHTS FOR ALL NATIVE AMERICANS COULD PROTECT THE PIMA.**<sup>24</sup>

*Historical footage of Coolidge Dam, and inaugural ceremony*

**THE COOLIDGE DAM. IN 1930, ONE OF THE LARGEST IN THE WORLD.**<sup>25</sup> **ITS PROMISE – TO PROVIDE WATER FOR EVERYONE, THIS TIME INCLUDING THE PIMA. FORMER PRESIDENT CALVIN COOLDIGE CELEBRATED ITS OPENING WITH POLITICIANS AND BUSINESSMEN. THEY DINED ON CHINA, CRYSTAL AND LINEN. THE PIMA ATE BAG LUNCHES ON MAKESHIFT TABLES.**<sup>25A</sup>

12:40

**COOLIDGE PASSED THE PEACEPIPE, BUT IN THE END, THE PIMA GOT LITTLE OF THE WATER. AGAIN.**<sup>26</sup>

*Smoking of the peacepipe*

ROD LEWIS V/O:

We were practically without water for almost an entire century.

ROD LEWIS O/C:

We were among the poorest people in the United States of America...<sup>26A</sup>

*Historical photos of Pima farmers*

ROD LEWIS V/O

...as are Indians who live on other reservations and still are in that situation. Unable to grow crops, unable to get out and work in the fields...

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<sup>22</sup>Ibid

<sup>22A</sup> Email from David DeJong, 2/6/07

<sup>23</sup> Ibid, Email from Lucius Kyyitan, 11.7.06

<sup>24</sup> Email from Lucius Kyyitan, 11.7.06, Lewis and Hestand, "Federal Reserved Water Rights: Gila River Indian Community Settlement," *Journal of Contemporary Water Research & Education*, May 2006

<sup>25</sup> Arizona State Library, Archives and Public Records, Cultural Inventory Project "Ceremonies at dam, 4 March 1930. Includes President Calvin Coolidge, news, cameras, crowds, and Apache Indians"; *Time Magazine*, Mar 17, 1930

<sup>25A</sup> Dam footage documents this

<sup>26</sup> Email from Lucius Kyyitan, 11.7.06, "Dam Dedicator," *Time Magazine*, Mar 17, 1930

<sup>26A</sup> Ezell, Paul, "Handbook of North American Indians," *Smithsonian*, Vol 10, 1983, US Census Bureau, The Brookings Institute

ROD LEWIS O/C

...unable to develop economically because of the lack of water for almost a hundred years, it was just, it's an absolute shame as far as this country is concerned, as far as the State of Arizona is concerned.

*Zoom out on Sacaton Diversion Dam*

13:20

DOCTOR WARNE V/O:

What is a metaphor for the rest of the country to try to think about in terms of damming the rivers?

DOCTOR WARNE O/C:

It would be like saying to this entire country, okay, survive now without money. And how would you do that? How would you change your entire economy, how would you change your entire culture? How would you change your entire lifestyle? And would you be successful? Would people die?

13:44

*Still of starving Pima*

**AND THE PIMA DID DIE. BUT THEY DIED FROM STARVATION, NOT FROM DIABETES.**<sup>27</sup>

*Surveys*

**A SURVEY CONDUCTED IN 1902 FOUND ONLY 1 CASE OF DIABETES AMONG THE PIMA.**<sup>28</sup> **BUT WITHIN 30 YEARS OF BUILDING THE COOLIDGE DAM, THERE WERE MORE THAN 500.**<sup>29</sup>

*Aerial footage of Arizona landscape, resorts, boats*

14:07

DOCTOR WARNE V/O:

If we had not dammed the rivers back in the 1920's and 1930's, we wouldn't be able to have this lifestyle that we enjoy in Arizona with the swimming pools and golf courses and artificial lakes. And with this lifestyle we are really living outside the laws of nature.

*Zoom out from golf course*

DOCTOR WARNE V/O:

And what people, I think, generally speaking don't realize is that all of the prosperity of Phoenix

DOCTOR WARNE O/C:

and the prosperity of this entire state was built on the backs of the health of the local tribes.

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<sup>27</sup> -"Indians Starving to Death: Six Thousand Perishing on Gila Reservation in Arizona Because of Famine of Crops," *Chicago Tribune*, June 17, 1900

<sup>28</sup> Hrdlicka A (1908) *Physiological and Medical Observations among the Indians of Southwestern United States and Northern Mexico*. Bureau of American Ethnology Bulletin no. 24. Washington, DC: Smithsonian Institute.

<sup>29</sup> -Bennett, Peter H, "Type 2 diabetes among the Pima Indians of Arizona: An Epidemic attributable to environmental change?", *Nutrition Review*, May, 1999; email from Dr. Peter Bennett, 1/12/07

-CHART adapted from Bennett, PH et al., *Lancet*, 1971, 2, 125 and approved by Bennett

ALSO SEE: Pratley, Richard E., "Gene-environment interactions in the pathogenesis of type 2 diabetes mellitus: lessons learned from the Pima Indians," *Proceedings of the Nutrition Society* (1998), 57, 175-181.

*Commodity Foods warehouse*

ROD LEWIS O/C & V/O:

Pimas lived a very, very difficult life at the bottom of the economic scale. We had almost no recourse except to become dependant upon governmental benefits.

*Close-ups of boxes, canned pork, flour, instant mashed potatoes*

**SHORTLY AFTER THE DAMS WERE BUILT, THE US MILITARY BEGAN DISTRIBUTING FREE COMMODITY FOODS TO NATIVE AMERICANS.<sup>30</sup>**

TERROL DEW JOHNSON V/O:

14:59

And, it definitely brought us through the hard times.

*Terrol photographing commodities building, dolly shot of boxes in warehouse*

TERROL DEW JOHNSON V/O:

This is the commodities building, where they house the commodity food. This is where people used to come get their cheese, their beans and their grape juice and stuff. There used to be just rows and rows and rows of those.

*Low-angle canned food being transported*

15:18

**BUT THIS SURPLUS FOOD – WHITE FLOUR, CHEESE, REFINED SUGAR, LARD, CANNED FOODS – IS A DIABETIC’S NIGHTMARE. AS IT WAS FOR TERROL’S NEIGHBOR...**

*Terrol outside*

LOWER THIRD: TERROL DEW JOHNSON  
Artist/Activist

TERROL DEW JOHNSON O/C:

They asked her ‘how many people were in her household’ and she said ‘about five’ and the guy said ‘well you can get five boxes of food’.

*Boxes of food being transported through warehouse, dolly shot of food shelves*

TERROL DEW JOHNSON V/O:

And there was chips and candy and canned food and I thought, well that’s an idea...that’s a nice idea about having food, but it’s just the wrong kind of food.

*Terrol outside*

TERROL DEW JOHNSON O/C:

And I asked her, I said so what kind, was their any kind of normal food? She goes, ‘well there were cans of gravy.’

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<sup>30</sup>United States Department of Agriculture, History of the Food Distribution Program, [www.fns.usda.gov/fdd/aboutfdp/fd-history.pdf](http://www.fns.usda.gov/fdd/aboutfdp/fd-history.pdf); conversation with Nancy Theodore & email from Nancy Theodore, 2/22/07 (KT)

*Long shot of food commodity building*

15:53

**IT WAS NOT UNTIL 1996 THAT FRESH PRODUCE WAS OFFERED IN THE PROGRAM. AND AUTHENTIC TRADITIONAL FOODS ARE STILL NOT INCLUDED.<sup>31</sup>**

*Close-up of menu for Pima fast food, two vendors preparing fry bread*

DR DONALD WARNE V/O:

When we think of traditional American Indian food for example, fry bread is one of the things that comes to mind. Well in truth, tribes did not have fried bread historically. The roots of fry bread are in the commodity food program.<sup>31A</sup> And fry bread is essentially, trying to do the best that you can with your commodities: flour, lard and vegetable shortening. Over generations, when people grow up with that, it becomes a part of the culture. It becomes acculturated into the community, that that is part of the norm.

*Woman shopping in market*

16:36

**THERE IS ONLY ONE SMALL MARKET ON THE 581 SQUARE MILE GILA RIVER RESERVATION,<sup>32</sup> WITH A SMALL PRODUCE SECTION.<sup>32A</sup>**

**A REGULAR SUPERMARKET IS AN HOUR'S ROUNDTRIP DRIVE.**

DONALD WARNE O/C:

If you're in an impoverished community and you don't have healthy choices for food, and you don't have safe places to exercise. You are tremendously disempowered when it comes to a disease like diabetes.

*Overweight woman entering store*

DONALD WARNE V/O:

And that has nothing to do with how much medication is in the pharmacy, it has everything to do with social determinants of health, which include that sense of control, that sense of self empowerment that is important to all of us, whether we're native or non-native. It has an impact on self-identity and it has an impact on one's sense of hope for the future.

*Henrietta Lopez in car*

HENRIETTA LOPEZ V/O:

Some of our people have just given up. Our people lost our identity, when we lost our water. Within our community we have elders that have gone...I always have that in the back of my mind, that those people will never see the water. When I leave the reservation and I see

**LOWER THIRD:** HENRIETTA LOPEZ  
Public Involvement Specialist

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<sup>31</sup> -Conversation with Nancy Theodore, 2/22/07 (KT) and email from Nancy Theodore, 2/22/07; USDA, Food Distribution Programs, Department of Fresh Fruit and Vegetable Program

<sup>31A</sup> Smith, Janell & Wiedman, Dennis, "Fat Content of South Florida Indian frybread: Health implications for a pervasive Native American Food," *Journal of the American Dietetic Association*, May 2001 Vol 101, No. 5;

<sup>32</sup> Northern Arizona University, Center for American Indian Economic Development, <http://www.cba.nau.edu/caied/TribePages/GRIC.asp> (372,000 acres = 581.25 square miles)

<sup>32A</sup> Email from Jim Fortier, 3/5/07

Pima-Maricopa Irrigation Project

HENRIETTA LOPEZ O/C:

17:43

those same people that live out there and use that water. How they've benefited from our loss. They've benefited so much for so many years.

*Large real estate development*

**DECISIONS TO BENEFIT SOME ARE MADE EVERY DAY. THEY CREATE WINNERS AND LOSERS, IN WEALTH AND IN HEALTH.**

*Arizona b-roll shots*

**IN UPSCALE CITIES LIKE SCOTTSDALE, ARIZONA, THE DIABETES RATE IS ONLY AROUND 5%. IN LESS AFFLUENT TOWNS LIKE BULLHEAD CITY, THE RATE IS CLOSER TO 11%. AND ON SOME POOR NATIVE AMERICAN RESERVATIONS, IT CONTINUES TO BE 50%.<sup>33</sup>**

*Shot of boy running*

**THIS IS A DISEASE PATTERN REPEATED ACROSS THE COUNTRY. ACROSS THE WORLD. AND NOT JUST FOR DIABETES. WHETHER YOU ARE POOR OR WEALTHY OR IN BETWEEN, IS A POWERFUL PREDICTOR OF HOW HEALTHY YOUR LIFE WILL BE.**

*Cactus and mountains at sunset*

18:50

**ACT THREE**

*Terrol photographing Margaret basket-weaving*

TERROL DEW JOHNSON O/C:

So, Margaret, How long have you been a diabetic?

*Close-up of Margaret basket-weaving*

MARGARET ACOSTA V/O:

Oh gosh, about 30, 36 years, something like that. Maybe even closer to 40.

*Terrol photographing Margaret, close-up on Margaret*

**LOWER THIRD:** MARGARET ACOSTA  
Tohono O'odham Elder

19:05

MARGARET ACOSTA O/C:

I am losing my eyesight, and my left eye is worse then my right eye.

TERROL DEW JOHNSON V/O:

Really?

MARGARET ACOSTA O/C:

From diabetes.

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<sup>33</sup> Center for Disease Control, Behavioral Risk Factor Surveillance System, "Prevalence Data, Arizona, 2005, Diabetes," <http://apps.nccd.cdc.gov/brfss/income.asp?cat=DB&yr=2005&qkey=1363&state=AZ>

*Margaret basket-weaving*

**MARGARET ACOSTA IS A RESPECTED TOHONO O'ODHAM ELDER AND CRAFTSPERSON. SHE'S ONE OF TERROL'S TEACHERS.**

MARGARET ACOSTA O/C:

In the past 3 weeks, I have been a little bit more serious taking my sugar count as often as I should.

TERROL DEW JOHNSON O/C:

It's really, really hard....

**MANAGING DIABETES IS DEMANDING...TAKING BLOOD SUGAR COUNTS FOUR TIMES A DAY, MONITORING DIET, STAYING PRODUCTIVE AND ENGAGED.<sup>33A</sup>**

TERROL DEW JOHNSON O/C:

So Margaret, do you think diabetes will get you at the end?

MARGARET ACOSTA O/C:

Uh huh, I know, I know so.

19:49

TERROL DEW JOHNSON O/C:

How does that make you feel?

MARGARET ACOSTA O/C:

Well I keep telling everybody, I'm going to live 'til I'm 100, and I am going to live 'til I'm 100, I tell that to diabetes every day. You're not going to get me yet.

*Close-ups on Margaret weaving*

20:10

**STUDIES CONFIRM THAT HOPEFULNESS HELPS TO MANAGE DIABETES.<sup>34</sup> BUT FOR THE O'ODHAM, HOPEFULNESS HAS BEEN IN SHORT SUPPLY...UP TO NOW.**

*Terrol looking at camera*

TERROL O/C:

I think I got my shot.

*Irrigation canal, bridge, close-up on water, pipes, trucks*

ROD LEWIS V/O:

We have a hundred years of neglect and poverty to make up for. We have to put in water delivery systems. We have to put in paved roads. We have to put in the hospitals and schools. We're a long ways behind most other segments of

ROD LEWIS O/C:

American society both in Arizona and nationally.

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<sup>33A</sup> conversation with representative at American Diabetes Association, KT

<sup>34</sup> -Richman, Laura Smart; Kubzansky, Laura; Maselko, Joanna; Kawachi, et al, "Positive Emotion and Health: Going Beyond the Negative," *Health Psychology*, 24(4), Jul 2005, 422-429; Newlin, K; Melkus, GD; Chyun, D; Jeffereson, V; "The relationship of spirituality and health outcomes in Black women with type 2 diabetes," *Ethnicity and Disease*, 2003 Winter; 13(1):61-8; And others in binder



*Zoom out of newspaper article: Session on western water rights*

20:52

**REGAINING WATER IS A HIGH PRIORITY. THE PIMA HAVE BEEN FIGHTING FOR THEIR WATER RIGHTS FOR CENTURIES, FACING OPPOSITION BY NON-TRIBAL ECONOMIC INTERESTS, AND SKEPTICISM AND RESISTANCE AT HIGH POLITICAL LEVELS.<sup>35</sup>**

ROD LEWIS O/C:

it was difficult, and there was, underlying all this, was I believe a lot of...um... not racial hostility...hostility...but a lot of feelings about tribes that... we didn't deserve the water,

*Newspaper article: The New Water Czars*

ROD LEWIS V/O:

...we didn't deserve to be in these negotiations, we didn't have a good strong valid claim for water.

*Zoom in on article passages*

21:27

**BY THE EARLY 1980's, NEW PLAYERS ENTERED THE FRAY.<sup>36</sup> CITRUS GROWERS, ENERGY PRODUCERS FROM SEVERAL STATES, RESORT DEVELOPERS ALL JOINED THE SCRAMBLE FOR 'LIQUID GOLD'.<sup>37</sup> ROD LEWIS SPENT SEVERAL DECADES ON THE PIMA LEGAL TEAM.**

ROD LEWIS O/C:

We have sat down with each one of those parties, spent literally thousands of hours right here in this room working on deals to settle our differences between us...

*Arizona water settlement act, b/w footage of Pima chanting*

ROD LEWIS V/O:

...all of that effort led to the Arizona Water Rights Settlement Act of 2004...

**AFTER A HUNDRED YEARS, WATER IS FLOWING DOWN THE GILA RIVER AGAIN. THE WATER RIGHTS ACT PROVIDES THE PIMA THE WATER AND RESOURCES NEEDED TO REBUILD THEIR FARMS.<sup>38</sup> BUT IT ALSO PROMISES SOMETHING MORE...**

*B/W footage from Water Rights ceremony*

22:18

GOVERNOR NARCIA V/O:

It is not about economic gain, it is about rebuilding our community.

GOVERNOR NARCIA O/C:

It has never been about personal gain. It is about the return of our culture.

GOVERNOR NARCIA V/O:

I truly believe the warm gentle winds

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<sup>35</sup> Email from Lucius Kyyitan, 11.7.06, Rod Lewis interview; articles in program

<sup>36</sup> Ibid

<sup>37</sup> Ibid, Peterson, Iver, "Session on Water Rights Finds No Quick Cures," New York Times, June 1984

<sup>38</sup> Email from Lucius Kyyitan, 11.7.0

GOVERNOR NARCIA O/C:  
of heaven are once again blowing on the Achimal O'Odham and the Piposh. God bless  
you all. God bless the Gila River. 22:59

*Tractor cultivating wheat*

BOBBY STONE V/O:  
This is Durham wheat. We contract Durham wheat this year with Arizona Grain.

*Bobby stone walking along irrigation canal*

BOBBY STONE O/C:  
Desert Durham Wheat is what we grow here. Basically, it's for the pasta manufacturers. A  
lot of it goes to Italy for the making of pasta.

LOWER THIRD:       BOBBY STONE  
                          General Manager  
                          Gila River Farms

BOBBY STONE O/C:  
Most of the time we get a better contract for that than other varieties.

*Long shot of Bobby walking into the distance*

*Henrietta speaking with Tony*

HENRIETTA LOPEZ O/C:  
So the allotment that you're in is section 12, okay. And this is Gilbert Road right here.

**THE TRIBE AND SOME INDIVIDUAL MEMBERS ARE NOW PLANNING TO EXPAND THEIR  
FARMING. IT'S BEEN NEARLY 20 YEARS SINCE TONY ANTON CULTIVATED HIS OWN  
ALLOTMENT.<sup>39</sup>**

*Reverse of Henrietta speaking with Antoine*

HENRIETTA LOPEZ O/C:  
So does that kind of make it clear?

TONY ANTON O/C:  
A lot, a lot...

HENRIETTA LOPEZ O/C:  
A lot better than just trying to explain it over the phone and ...

TONY ANTON V/O:  
...that way I wont argue with you next time.

23:59

*Dr. Donald Warne interview*

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<sup>39</sup> email from Jim Fortier

DR DONALD WARNE O/C:

In truth, we have more control over the problems like diabetes than we realize.

*Close-up of mechanized farm hoe, tire, reverse*

DR DONALD WARNE V/O:

We can't think of diabetes and colonization just simply from the role of the victim. The disease patterns like diabetes occur over many years

*LOWER THIRD:* DONALD WARNE, MD  
President & CEO  
American Indian Health Management & Policy

DOCTOR WARNE O/C:

So we're not going to see a dramatic change over night.  
But I think in the long run, as we see more success in economic and workforce development,

DOCTOR WARNE V/O:

we're going to see improvements in healthcare systems, education systems and in social policy. We have to take more control over our own communities.

*24:32*

*Terrol exiting truck parked in desert*

LEONARD SYME V/O:

Things like diabetes get our attention. But by focusing on diabetes, you miss the underlying phenomenon, and that's really the important stuff.

*Terrol photographing in a graveyard.*

TERROL O/C:

I feel like taking pictures of the graveyard.

LEONARD SYME O/C:

If we took everyone at risk of disease and cured them so they were no longer at risk,

*LOWER THIRD:* S. LEONARD SYME  
Epidemiologist  
UC Berkeley

LEONARD SYME O/C:

it would do virtually nothing to solve our problem because new people would continue to enter the at risk population at an unaffected rate forever.

*Stills of photographs of aunt's grave*

*25:09*

TERROL V/O:

This is my aunt. She died of complications of diabetes.

LEONARD SYME V/O:

The issue is we're not paying enough attention to prevention.<sup>40</sup>

LENOARD SYME O/C:

Overwhelmingly, funds are spent on fixing people who are already sick. We have to change that formula.

*Close-up of grave of Alexander Pancho*

TERROL V/O:

Here's my grandpa. He died of diabetes.

TERROL V/O:

25:20

He was a medicine man. He was a cowboy. He was in the navy.

*Terrol walking down aisle in graveyard*

TERROL V/O:

I don't want to die of this. You know I don't want to die either with one leg or two legs missing. I still see hope, I don't have to die of diabetes. You know, I'll die of some natural cause or something.

*Fade to black*

26:09

END

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<sup>40</sup> Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group (2.8%); see emails from Leonard Syme in binder