

UNNATURAL CAUSES ...is inequality making us sick?

A four-hour series airing on PBS and a national public impact campaign

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.

EPISODE 1 – IN SICKNESS AND IN WEALTH (56 mins)

What are the connections between healthy bodies and healthy bank accounts? Our opening episode travels to Louisville, Kentucky, not to explore whether health cures us but to see why we get sick in the first place.

The lives of a CEO, a lab supervisor, a janitor, and an unemployed mother illustrate how social class shapes opportunities for good health. Those on the top have the most access to power, resources and opportunity – and thus the best health. Those on the bottom are faced with more stressors – unpaid bills, jobs that don't pay enough, unsafe living conditions, exposure to environmental hazards, lack of control over work and schedule, worries over children – and the fewest resources available to help them cope.

The net effect is a health-wealth gradient, in which every descending rung of the socioeconomic ladder corresponds to worse health. And it's not just the poorest among us who are suffering, but the middle classes too. Louisville Metro Public Health Department data maps reveal 5- and 10-year gaps in life expectancy between the city's rich, middle and working-class neighborhoods. We also see how racial inequality imposes an additional burden on people of color.

But how do racism and class get under the skin? Experiments with monkeys and humans shed light on chronic stress as one culprit. Like gunning the engine of a car, constant activation of the stress response wears down the body's system, resulting in higher rates of disease and early death.

Compared to other countries, the U.S. has the greatest income inequality – and the worst health. Today, the top one percent of Americans owns more wealth than the bottom 90% combined. Economic inequality is greater than at any time since the 1920s. One out of every five children in the U.S. lives in poverty (21%) compared with approximately 4% of Sweden. Social spending makes up most of the difference: in Sweden, social spending reduces child poverty by 70%, while in the U.S. it reduces child poverty only 5%, down from 26%.

Solutions being pursued in Louisville and elsewhere focus not on more pills but on more equitable social policies. Louisville's new Center for Health Equity is the first of its kind: a collaborative effort among community members, local government, private business and health care organizations to focus on the social conditions that underlie our opportunities for health and wellbeing.

EPISODE 2 – WHEN THE BOUGH BREAKS (29 mins)

The number of infants who die before their first birthday is much higher in the U.S. than in other countries. And for African Americans the rate is nearly twice as high as for white Americans. Even well-educated Black women have birth outcomes worse than white women who haven't finished high school. Why?

We meet Kim Anderson, a successful Atlanta lawyer, executive and mother. When Kim was pregnant with her first child in 1990, she, like so many others, did her best to ensure a healthy baby: she ate right, exercised, abstained from alcohol and smoking and received good prenatal care. Yet two and a half months before her due date, she went into labor unexpectedly. Her newborn weighed less than three pounds. Kim and her husband were devastated. How could this have happened?

In general, health follows wealth: on average, the higher on the socioeconomic ladder you are, the lower your risk of cancer, heart disease, diabetes, infant death and preterm deliveries. For highly educated Black women like Kim, the advantages of income and status do make a difference for her health, but there's still something else at play: racism.

Neonatologists James Collins and Richard David believe that African American women are at increased risk during pregnancy, not because of something innate to their biology, but because of the cumulative impact of racism they experience over their lifetime – an impact that can outweigh even the benefits of higher social and class status.

To demonstrate their theory, Drs. Collins and David showed that African immigrants to the U.S. and U.S.-born white women had similar birth outcomes, yet African American women tended to have babies that weighed significantly less. Moreover, they showed that the results changed over time: outcomes for the African-born group worsened within one generation and became comparable to the African American group.

So how does racism get “under the skin” and affect pregnancy? Researchers like Michael Lu believe that chronic stress is the culprit: unequal treatment triggers anxiety and the release of stress hormones, which over a lifetime of constant activation not only creates wear and tear on the body's organs and systems, but during pregnancy, results in overload – and premature labor. As Dr. Camara Jones of the CDC points out, for most people of color, racism isn't an occasional problem but a subtle, everyday stressor that is added onto all the other stressors in a person's life.

Anthropologist Fleda Jackson, sociologist Mona Phillips and epidemiologist Carol Hogue are working to help us measure and better understand racism's impact. Through focus groups and programs that provide family support, they and others are helping African American women find the resources they need to cope. Yet for all of us, the challenge remains to tackle the harmful conditions that surround and negatively impact African American women and babies in the first place – so that everyone can have the right start for a healthy life.

EPISODE 3 - BECOMING AMERICAN (29 mins)

Recent Mexican immigrants, although poorer, tend to be healthier than the average American. They have lower rates of death, heart disease, cancer, and other illnesses, despite being less educated, earning less and having the stress of adapting to a new country and a new language. In research circles, this is sometimes called the Latino paradox.

But the longer they're here, the worse their relative health becomes, even as their socioeconomic status improves. After only five years in the U.S., they are 1.5 times more likely to have high blood pressure – and be obese – than when they arrived. Within one generation, their health is as poor as other Americans of similar income status.

In Kennett Square, Pennsylvania, about 40 miles south of Philadelphia, Mexican immigrants like Amador Bernal now make up a quarter of the town's population. After almost 25 years in the U.S., Amador has never been to a doctor. And he's not alone.

Some researchers believe that most immigrants come to the U.S. with a health advantage, even if their native country is poor. That's because people who are able to move to another country must be in good physical and mental health to begin with.

Public health advocate Tony Iton has a related theory: "Immigrants bring to this country aspects of culture, of tradition, of tight family social networks and community social networks that essentially form a shield around them and allow them to withstand the deleterious, negative impacts of American culture."

But that shield has an expiration date. Dr. William Vega's research with Mexican immigrants in California shows: "The levels of all major mental disorders increased when we looked at people who had been in the country over 13 years. So you see these protective factors begin to wear down."

For Amador Bernal and his family, support from extended family and friends is central to their ability to stay mentally and physically healthy. But more importantly, their health is protected by the union at the mushroom farm where Amador works, which helps guarantee a decent wage, vacation days, health insurance and safe working conditions; by the social service agency that runs a free clinic on the farm premises for workers; and by the community center that keeps the children safe after school and provides them with friends, after-school tutoring, computer access and a path to a better future.

EPISODE 4 – BAD SUGAR (29 mins)

The Pima and Tohono O’odham Indians of southern Arizona have arguably the highest diabetes rates in the world – half of all adults are afflicted. But a century ago, diabetes was virtually unknown here. Researchers have poked and prodded the Pima for decades in search of a biological – or more recently, genetic – explanation for their high rates of disease. Meanwhile, medical-only interventions have failed to stem the rising tide not just among Native Americans, but globally.

What happened to the health of the Pima? During the 20th century, the diversion of river water to upstream white settlements disrupted the Pima’s agricultural economy and customary ways. Local tribes were plunged into poverty and became dependent on the U.S. government. Healthy traditional foods like tepary beans, cholla buds, and wild game were replaced by surplus commodities like white flour, lard, processed cheese and canned foods – a diabetic’s nightmare. A sense of “futurelessness” took hold, and so did diabetes.

According to Dr. Don Warne, a trained physician and traditional Lakota healer who works with the Pima, health problems like diabetes begin long before people get to the clinic or the hospital. While obesity and diet are risk factors, so is poverty. People in the lowest income brackets are at least twice as likely to become diabetic as those in the highest. For the O’odham and other Native Americans, the stress of living in poverty is compounded by a history of cultural, economic and physical loss, which researchers believe magnifies its impact on health.

Attorney Rod Lewis has spent the last several decades fighting to restore his tribe’s water rights. In 2004 he helped negotiate the largest water settlement in Arizona history, which not only guaranteed the return of water but provided crucial funds to build roads, dams and other infrastructure. Now the Pima are beginning to farm again. Leaders are cautiously optimistic that community empowerment, along with sustainable and culturally appropriate development can help restore prosperity, hope, and health.

EPISODE 5 - PLACE MATTERS (29 mins)

Why is your street address such a good predictor of your health? Latinos and Southeast Asians like Gwai Boonkeut have been moving into long-neglected urban neighborhoods such as those in Richmond, California, a predominantly Black suburb of the San Francisco Bay Area. Segregation and lack of access to jobs, nutritious foods, and safe, affordable housing have been harmful to the health of long-time African American residents, and now the newcomers' health is suffering too.

In Gwai's environment, petrochemical companies release tons of pollutants each year. But other environmental factors may pose a greater threat to his health. Richmond has higher than average rates of asthma hospitalization, higher rates of diabetes, and lower life expectancy. Not coincidentally, Gwai's area also has higher rates of poverty, lower income rates, and lower rates of educational attainment. Tobacco, liquor and fast food are everywhere, but fresh produce isn't. Quality affordable housing is hard to find, and so are safe places to play and exercise.

Sixty-five years ago, Richmond was a boom town. During World War II, the Kaiser shipyard ran 24 hours a day. The war effort drew workers of all ethnicities. But when the war ended and the shipyards closed, thousands of jobs left. Many white families took advantage of federally-backed loans to start fresh in new areas, but discriminatory policies and practices excluded people of color from those same opportunities. Between 1934 and 1962, less than 2% of \$120 billion in government-backed home loans went to non-white households. In Northern California around the same time period, out of 350,000 federally guaranteed new home loans, only 100 went to Black families.

All across America, in cities like Richmond, African Americans were left behind in increasingly neglected neighborhoods. As social conditions worsen, so does health. Studies have shown, for example, that living in a disadvantaged neighborhood leads to a 50-80% increase in risk for heart disease – the number one killer in America. One reason is chronic stress. Worrying about violence, lousy schools, and unpaid bills; living in substandard housing or a polluted environment; not having good access to fresh food, reliable transportation, or safe public spaces – all of these have a negative, even toxic effect on health.

In the Pacific Northwest, a neighborhood that was once much like Richmond, High Point in West Seattle, is emerging as a promising alternative. Community members, local government and developers took a radical approach in rebuilding this neighborhood – using federal funding to create a mixed-income community with health as its focus. Here, community gardeners grow and sell organic produce to other residents; neighbors socialize along clean, safe streets; children play in the park; and families with asthma breathe easily in specially-designed homes.

Although High Point isn't perfect, it's an example of what can happen when residents, government agencies, local officials, foundations and private business work together and take health into account. As Harvard's David Williams reminds us, "Housing policy is health policy. Neighborhood improvement policies are health policies. Everything that we can do to improve the quality of life for individuals in our society has an impact on their health and is a health policy."

EPISODE 6 - COLLATERAL DAMAGE (29 mins)

The lives and health of Marshall Islanders in the equatorial Pacific were disrupted in a unique fashion when the United States used their outer islands for extensive nuclear testing after World War II. Between 1946 and 1958, 67 atomic devices were detonated – the estimated yield equivalent to 1.7 Hiroshima blasts every day for 12 years.

After miscalculations on one of the largest explosions caused fallout to land on three inhabited islands, residents were treated, relocated, and tracked to study the effects of radiation exposure on humans. Hundreds of other Marshallese were moved off their home islands to make way for the testing and to build a permanent military base.

Their lands, culture, and traditional way of life destroyed, many Marshallese, desperate for jobs, now crowd the island of Ebeye. Here, they face the worst of both the “developing” and industrialized worlds. Tuberculosis and other infectious diseases are fed by poverty and squalid conditions. Lack of economic opportunities and healthy food options, combined with the stress of dislocation and cultural loss, have also led to high rates of chronic illnesses like diabetes, heart disease, hypertension, obesity and cancer.

A few miles away on Kwajalein Island, where the U.S. base is located, American contractors and their families enjoy a pleasant suburban environment. Health outcomes here are comparable to the U.S. Although more than 1,100 Marshallese work on Kwajalein, they’re not allowed to live there and must commute by ferry to and from Ebeye, where power outages and sanitation issues are a continuing problem.

Today, around 10,000 Marshall Islanders, seeking a better future, have ended up in the unlikely place of Springdale, Arkansas. A special treaty allows Marshallese citizens to live and work in the U.S. freely without a visa. Drawn by plentiful jobs in the meat processing industry and a low cost of living, most are happy to have better educational opportunities and healthier options.

But even though the Marshallese can leave the impoverished conditions of their homeland behind, they can’t escape the effects of having lived in poverty. They must also cope with the stress of an unfamiliar environment. Rates of tuberculosis and other infectious diseases among Marshallese living in the U.S. are far above the national average. Chronic disease rates are also high.

The health problems that Marshallese people experience today are the price they’ve paid to help the U.S. maintain a strategic military presence in the Pacific. Our relationship with the Marshall Islands has shaped much of its fate over the past 60 years; it can also help improve their prospects for life and better health in the future.

EPISODE 7 – NOT JUST A PAYCHECK (30 mins)

In the winter of 2006, the Electrolux Corporation closed the largest refrigerator factory in the U.S. and moved it to Juarez, Mexico, for cheaper labor. The move turned the lives of nearly 3,000 workers in Greenville, Michigan, upside down.

Before the plant closed, Electrolux workers led a middle class life—owning homes, buying new cars and taking vacations. Now most are scraping by on severance pay, unemployment benefits and a health plan that will end in a year. As personal finances spiral downward, health follows. In the year after the plant closure, the local hospital treated three times as many cases of depression, attempted suicide and domestic abuse. Experts say that heart disease and mortality are also predicted to rise – totaling 134 “excess” deaths in this area alone over the next 10 years. And the lay-offs not only affect workers but their families and the entire community as well.

Psychologist Rick Price, who has studied the effects of job loss on health, explains, “These external life events do get under the skin. They create changes in the way our physiological system operates. They create elevated stressors – stress responses that ultimately lead to both acute and chronic health problems.”

High levels of the stress hormone cortisol, for example, can trigger increases in blood pressure, blood sugar, and even inflammation – all risk factors for disease. When stresses just won’t stop – as bills keep coming and there’s no hope for good paid work – the high level of stress hormones puts strain on the body’s organs, eventually wearing them out. Stress also increases the risk of health problems such as alcohol abuse, suicide, homicide, and accidents.

As middle-class Americans find their health and way of life increasingly threatened by globalization and corporate profit-seeking, those in the top income brackets are reaping the spoils of our winner-take-all society. The typical CEO now earns more than 250 times the salary of the average worker. Today, the top 1% of the population has more wealth than the bottom 90% combined. Economic inequality is greater now than at any time since the 1920s.

In other countries, the situation is vastly different. When Electrolux shut down one of its plants in Vastervick, Sweden, it caused hardly a ripple. Laid-off workers received 80% of their salary in unemployment benefits, which allowed many to train for new skills and helped tide them over while they looked for other work. Electrolux also paid \$3 million to stimulate the creation of start-up businesses in Vastervick after pressure from the union and government. The town of Greenville, Michigan, received nothing.

Sweden also guarantees its citizens a college education, health care, five weeks of paid vacation, 16 months of paid leave for new parents, and much more. Swedish social policies assume an ethos of shared responsibility and provide a safety net for citizens. Although Swedes pay more in taxes, the benefits are obvious: Swedes live, on average, three years longer than we do.

In America, at least for the time being, workers are left to fend for themselves, and we all pay the price in both health and wealth.