

# UNNATURAL CAUSES ...is inequality making us sick?

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

## HEALTH EQUITY QUIZ

### 1. How does U.S. life expectancy compare to other countries?

- A. #1
- B. in the top 5
- C. in the top 10
- D. 20<sup>th</sup> place
- E. 29<sup>th</sup> place

**ANSWER: E. 29<sup>th</sup> place.** At 77.9 years, we are tied with South Korea and Denmark for 29<sup>th</sup> – 31<sup>st</sup> place, despite being the second wealthiest country on the planet (measured by per capita GDP). Japan has the highest life expectancy at 82.3 years.(1) Based on the general correlation between GDP per capita and health, our average life expectancy “should” be 3 years longer(2). Even citizens of countries considerably poorer than ours, including Costa Rica, Chile and Greece, live longer on average than we do.

Sources: (1) 2007 United Nations Human Development Report, based on 2005 data. (<http://hdr.undp.org/en/>)  
(2) OECD Factbook 2007: Economic, Environmental and Social Statistics. (<http://www.oecd.org>)

### 2. Where did the U.S. rank in life expectancy 50 years ago?

- A. #1
- B. in the top 5
- C. in the top 10
- D. 20<sup>th</sup> place
- E. 30<sup>th</sup> place

**ANSWER: B. in the top 5.** At 68.2 years, U.S. life expectancy in the 1950s was longer than in most other countries. Interestingly, we had less economic disparity back then compared with other countries, even Sweden. But especially starting in the 1980s, the gap in the U.S. between the rich and the rest of us began to grow as other industrialized countries began to prosper and rapidly passed us on many health indicators. Just a coincidence?

Source: Oeppen, Jim & James W. Vaupel. (May 10, 2002). “Enhanced: Broken Limits to Life Expectancy,” *Science*, 296(5570), 1029 – 1031. (<http://www.sciencemag.org/>)

### 3. How much does the U.S. spend per person on health care compared to the average of the other industrialized countries?

- A. Three quarters (75%) of the average
- B. The same
- C. One and a half times (150%) as much
- D. Two and a half times as much
- E. Four times as much

**ANSWER: D. Two and a half times as much.** We spent \$6,102 per person on medical care in 2004 – 15.3% of our GDP. That’s more than double the \$2,552 median of the 30 OECD countries. So why are our health outcomes among the worst in the industrialized world, even as our medical costs continue to escalate? For one thing, our health care system can only repair our bodies. The sicker people are to begin with, the greater the strains placed on our health care system.

Source: 2007 United Nations Human Development Report, based on 2004 WHO data. (<http://hdr.undp.org/en/>)

### 4. How do U.S. smoking rates compare to those of other wealthy countries?

- A. #1 (highest smoking rates)
- B. top 5
- C. top 10
- D. 11-20<sup>th</sup> place
- E. below 25 (lowest smoking rates)

**ANSWER: E. Below 25.** According to UNDP figures, Japan has the world’s longest life expectancy AND the highest smoking rate among industrialized countries. The French also smoke more than we do but

live longer. The Germans drink more and live longer. But the U.S. has the greatest income gap between the rich and the rest of us – and the worst health.

Source: 2007 United Nations Human Development Report, based on 2005 data (<http://hdr.undp.org/en/>)

**5. What is the greatest difference in life expectancy observed between U.S. counties?**

- A. 4 years
- B. 7 years
- C. 15 years
- D. 22 years
- E. 33 years

**ANSWER: C. 15 years.** Our zip code is a strong indicator of our health. A recent study of “Eight Americas” (comparing different groups within the country) found a 14.7 year gap in life expectancies at birth between the longest and shortest-lived counties.(1) These differences become even starker between subgroups – e.g., Asian American women in Bergen County, New Jersey, live 33 years longer than Native American men in South Dakota. Health expert Sir Michael Marmot noted that on a subway ride from southeast Washington, D.C. (an impoverished African American neighborhood) to Montgomery County, Maryland (an affluent white suburb), life expectancy of the surrounding communities rises about a year and a half for every mile traveled—amounting to a 20-year gap.(2)

Sources: (1) Murray, C.J.L. et al. (2006). “Eight Americas: Investigating Mortality Disparities across Races, Counties, and Race-Counties in the United States.” *PLoS Med* 3(9): e260. doi:10.1371/journal.pmed.0030260  
(2) Marmot, Michael. (2004). *Status Syndrome*. New York: Henry Holt and Company.

**6. Between 1980 and 2000, how did the life expectancy gap between the least deprived and most deprived counties in the U.S. change?**

- A. Narrowed by 1%
- B. Narrowed by 12%
- C. Remained the same
- D. Widened by 28%
- E. Widened by 60%

**ANSWER: E. Widened by 60%.** As economic inequality grew after 1980, so did the life expectancy gap between the rich and the rest of us. In contrast, a recent study shows that premature death and infant mortality gaps narrowed between 1966 and 1980.

Source: Krieger, Nancy, et al. (2008) “The Fall and Rise of US Inequities in Premature Mortality: 1960–2002.” *PLoS Med* 5(2): e46. doi:10.1371/journal.pmed.0050046

**7. On average, how many more supermarkets are there in predominantly white neighborhoods compared to predominantly Black and Latino neighborhoods?**

- A. about the same
- B. 1.5 times as many
- C. 2 times as many
- D. 4 times as many
- E. 6 times as many

**ANSWER: D. 4 times as many.** Predominantly Black and Latino neighborhoods have more fast-food franchises and liquor stores, yet often lack stores that offer fresh, affordable fruits and vegetables. Residents tend to rely more on public transportation, further compounding problems of access. A 2005 Chicago study found that people living in such “food deserts” died early in greater numbers and had more diabetes, obesity and high blood pressure.

Source: Mari Gallagher Research & Consulting Group. (2006) Good Food: Examining the Impact of Food Deserts on Public Health in Chicago. Report commissioned by LaSalle Bank. (<http://www.lasallebank.com/about/stranded.html>)

**8. The predominantly white neighborhoods in west Los Angeles contain approximately 31.8 acres of park space per 1,000 residents. How many acres of park space exist per 1,000 residents in the predominantly Black and Latino neighborhoods of south central L.A.?**

- A. 28.7 acres
- B. 17.2 acres
- C. 14.6 acres
- D. 5.8 acres
- E. 1.7 acres

**ANSWER: E. 1.7 acres.** That's almost 19 times more green space in white neighborhoods than Black and Latino neighborhoods! More parks means cleaner air, room to exercise and play, a place for community members to gather, not to mention higher property values and increased desirability.

Source: Pincetl, Stephanie et al. (March 2003). Toward a Sustainable Los Angeles: A 'Nature's Services' Approach. Report from the University of Southern California Center for Sustainable Cities. ([http://www.usc.edu/dept/geography/ESPE/documents/report\\_haynes.pdf](http://www.usc.edu/dept/geography/ESPE/documents/report_haynes.pdf))

**9. How much does chronic illness cost the U.S. each year in lost work productivity?**

- A. \$105 million
- B. \$601 million
- C. \$2.2 billion
- D. \$153 billion
- E. \$1.1 trillion

**ANSWER: E. \$1.1 trillion.** According to a 2007 study by the Milken Institute, the financial burden of chronic illnesses such as heart disease and diabetes goes far beyond actual medical expenses (\$277 billion in 2003). Our poor health takes an even greater toll on economic productivity in the form of extra sick days, reduced performance by ailing workers and other losses not directly related to medical care.

Source: DeVol, Ross & Armen Bedroussian. (October 2007). Unhealthy America: The Economic Burden of Chronic Disease. Report from The Milken Institute. (<http://www.chronicdiseaseimpact.com>)

**10. African American men in Harlem have a shorter life expectancy from age five than which of the following groups?**

- A. Japanese
- B. Bangladeshis
- C. Cubans
- D. Algerians living in Paris
- E. All of the above

**ANSWER: E. All of the above.** Even males in Bangladesh, one of the poorest countries in the world, have a better chance of reaching age 65 than African American males in Harlem. The biggest killers in poor African American communities are not drugs or bullets but chronic diseases like stroke, diabetes and heart disease. Former Surgeon General Dr. David Satcher and colleagues calculated that 83,000 African American "excess" deaths could have been prevented in 2002 if Black-white differences in mortality were eliminated.

Sources: (1) McCord C., & H.P. Freeman. (1990). "Excess Mortality in Harlem." New England Journal of Medicine, 322(3), 173-177. (<http://content.nejm.org/cgi/content/abstract/322/3/173>)  
(2) Satcher, D. et al. (2005). "What If We Were Equal? A Comparison of the Black-White Mortality Gap in 1960 and 2000." Health Affairs, 24(2), 459-464. (<http://content.healthaffairs.org/cgi/content/abstract/24/2/459>)

**11. On average, which of the following is the best predictor of one's health?**

- A. whether or not you smoke
- B. what you eat
- C. whether or not you are wealthy
- D. whether or not you have health insurance
- E. how often you exercise

**ANSWER: C. Whether or not you are wealthy.** The single strongest predictor of health is our position on the class pyramid. Those at the top have the most power and resources, and on average live longer and healthier lives. Those on the bottom are exposed to many health threats over which they have little or no control – insecure and low-paying jobs, mounting debt, poor child care, poor quality housing, less access to healthy food, unreliable transportation, and noisy and violent living conditions – that increase their risk of chronic disease and early death. Even among smokers, poor smokers face a higher mortality risk than rich smokers. Those of us in the middle are still worse off than those at the top.

Source: Adler, N.E. et al. (2007). Reaching for a Healthier Life: Facts on Socioeconomic Status and Health in the U.S. Report from the MacArthur Foundation Research Network on Socioeconomic Status and Health. (<http://www.macses.ucsf.edu/News/Reaching%20for%20a%20Healthier%20Life.pdf>)

**12. Children living in poverty are how many times more likely to have poor health, compared with children living in high-income households?**

- A. 2 times
- B. 4 times
- C. 5 times
- D. 7 times
- E. 10 times

ANSWER: D. 7 times. There's a continuous health-wealth gradient: on average, the wealthier you are, the better your health, from the top all the way to the bottom. But childhood poverty has an even greater impact because children are the most vulnerable. For example, substandard housing conditions can trigger asthma and other respiratory problems; lack of access to fresh, nutritious food stunts growth, affects learning and contributes to obesity; an unsafe neighborhood breeds violence, raises stress hormones and limits opportunities for exercise; and poor schools limit job prospects and future socioeconomic success. The effects of childhood poverty are cumulative, lasting into adulthood and even the next generation.

*Source: Overcoming Obstacles to Health. (2008). Report from the Robert Wood Johnson Foundation Commission to Build a Healthier America. (<http://www.commissiononhealth.org/Report.aspx?Publication=26244>)*

**13. Generally speaking, which group has the best overall health in the U.S.?**

- A. Recent Latino immigrants
- B. Non-Hispanic whites
- C. Native-born Latinos
- D. Native-born Asian Americans

ANSWER: A. Recent Latino immigrants. Several studies suggest that recent Latino immigrants have better health outcomes than other U.S. populations despite being, on average, poorer. However, the longer they live here, the worse they fare. This phenomenon is often called the "Latino paradox." Five years after arrival, Latino immigrants' health begins to erode; within a generation, Latinos lose their advantage and experience the higher-than-average disease rates comparable to other low-income populations.

*Sources: (1) Advance Data from Vital and Health Statistics. (March 1, 2006). Centers for Disease Control. (2) Markides and Coreil. (May-June 1986). "The Health of Hispanics in Southwestern United States: an Epidemiologic Paradox." Public Health Reports. (3) Burnam et al. (March 1987). "Acculturation and Lifetime Prevalence of Psychiatric Disorders among Mexican Americans in Los Angeles." Journal of Health and Social Behavior. (4) Evans, J. (1987). "Introduction: Migration and Health." International Migration Review.*

**14. Chronic stress increases the risk of all of the following except:**

- A. hypertension
- B. obesity
- C. sickle cell anemia
- D. pre-term birth
- E. diabetes

ANSWER: C. Sickle cell anemia. Sickle cell anemia is a genetically inherited disease. Chronic stress is a risk factor for all the other conditions. Like gunning a car, the stress response, even if low level, can wear down our systems over time and increase our susceptibility to disease. The lower we are in the class and racial hierarchy, the greater our exposures to stressors that threaten our health, and the less access we have to resources that help us cope.

*Source: Marmot, Michael. (2004). The Status Syndrome. New York: Henry Holt.*

**15. During the 20<sup>th</sup> century, U.S. life expectancy increased 30 years. Which of the following was the most important factor behind the increase?**

- A. Social reforms (like wage and labor laws, housing codes, etc.) and increased prosperity
- B. New drugs (like penicillin)
- C. The development of the modern hospital system
- D. Migration from rural areas to cities
- E. More exercise and smoking cessation

ANSWER: A. Social reforms. While researchers debate the relative importance of one factor versus another, most agree that better wages, housing, job security and working conditions, civil rights laws,

sanitation and other protections that enlarged the middle class were central to expanding average American life expectancy. Death rates from tuberculosis, for example, fell by 70% even before the drug for TB was discovered in 1948.

Sources: (1) Vital Statistics Rates in the U.S. 1900-1940, *U.S. Department of Commerce Report* (dropped 76.4%).  
(2) Vital Statistics Rates in the U.S. 1900-1968, *U.S. Department of Commerce Report 1900-1968, US Public Health Service, Vital Statistics of the United States, 1968, vol 2, part A, 1969-1970, unpublished data, provided to Sally Soliai by Karen Denise Thompson from the Census Bureau, Oct 18<sup>th</sup>, 2006*;  
(3) McKinlay, John and Sonja, "The Questionable Contribution of Medical Measures to the Decline of Mortality in the United States in the Twentieth Century," *Millbank Memorial Fund Quarterly. Health and Society* (55:3) 1977.

**16. True or False? The gap between white and African American infant mortality rates is greater today than it was in 1950.**

A. True

B. False

ANSWER: A. True. The total number of infant deaths among both African American and white Americans has fallen since 1950. But today the infant mortality rate for African Americans is two and a half times that of white Americans, a greater gap than 60 years ago. In fact, the rate among African American mothers with college and professional degrees is higher than among white mothers who haven't finished high school. The only time the health gap between African Americans and white Americans narrowed in both relative and absolute terms was after the Civil Rights victories of the 1960s. But the gap began widening again in the 1980s.

Sources: (1) Vital Statistics of the United States. (2002.) *Centers for Disease Control and Prevention*.  
(2) David, R. & J. Collins. (1997). "Differing Birth Weight among Infants of U.S.-Born Blacks, African-Born Blacks, and U.S.-born Whites," *The New England Journal of Medicine*, 337(17).  
(3) Randall, V. (2006). *Dying While Black*. Dayton, OH: Seven Principles Press.  
(4) Cooper et al. (1981) "Improved Mortality among U.S. Blacks, 1968-1978: the Role of Antiracist Struggle." *International Journal of Health Services*, 11(4).

**17. Citizens of other industrialized countries have longer life expectancies and better health than we do because:**

A. They spend more on medical care

D. They eat better

B. They are more egalitarian

E. They have universal health care coverage

C. They smoke less

ANSWER: B. They are more egalitarian. On average, the smaller a country's Gini coefficient (a measure of income inequality), the better its health. The U.S. spends more than twice the average per capita among developed nations on health care, yet has the worst economic inequality in the industrialized world and the worst health outcomes. Although universal health care coverage is important, its impact on health is less than the social conditions that make people sick in the first place. Social policies like living wage jobs, paid sick and family leave, guaranteed paid vacations, and universal preschool can shorten the ladder of inequality and offer protections from health threats to those on lower rungs.

**18. The child poverty rate in Norway is 3.4%, France 7.5%, Hungary 8.8% and Greece 12.4%. What is it in the U.S?**

A. 4.1%

D. 21.2%

B. 8.6%

E. 32.4%

C. 12.8%

ANSWER D. 21.2%. The U.S. has by far the most relative child poverty in the industrialized world. ("Relative poverty" is defined as households with income below 50 % of the national median income.) No one else even comes close. Interestingly, the French child poverty rate is 27.7% before taxes and transfers, but falls to 7.5% after accounting for social programs. In Sweden, social spending drops the child poverty rate from 18% to 4.2%. But the U.S. spends the least on social programs and as a result our child poverty rate falls only a little, from 26.6% to 21.2%.

Source: "Child Poverty in Rich Countries" (2005.) *Innocenti Report Card No. 6. Report of the UNICEF Innocenti Research Centre, Florence, Italy.* (<http://www.unicef-irc.org/>)

**19. Ireland, Sweden, France, Spain, Portugal and the other western European nations all mandate by law *paid* holidays and vacations of four to six weeks. How many days of paid vacation are mandated by law in the United States?**

- A. None
- B. 5
- C. 10
- D. 12
- E. 18

ANSWER: A. None. The United States is the only country in the industrialized world that does not guarantee paid days off by law. U.S. employers have the freedom to offer paid vacation or not. As a result, one in four American workers receives NO paid holidays or vacations.

**20. On average, how does the number of hours that Americans work each year compare to other OECD countries?**

- A. About the same
- B. 40 hours less
- C. 40 hours more
- D. 100 hours more
- E. 200 hours more

ANSWER: E. 200 hours more. Americans now work more hours than even the Japanese (1,824 hours per year vs. 1,789). That's the equivalent of working five more weeks per year. Combine that with commutes that are twice as long as 20 years ago, lack of parental leave, and lack of sick leave and it's no wonder that Americans have less time with their families and tend to be more socially isolated.

*Source: Mishel, Lawrence, Jared Bernstein and Sylvia Allegretto. (2007). State of Working America 2006-2007. Economic Policy Institute. Work hours fact sheet: [http://www.stateofworkingamerica.org/news/SWA06Facts-Work\\_Hours.pdf](http://www.stateofworkingamerica.org/news/SWA06Facts-Work_Hours.pdf) (accessed March 20, 2008)*

**21. How many days of paid sick leave are U.S. workers guaranteed by law?**

- A. None
- B. One day
- C. Six days
- D. Ten days
- E. Fourteen days

ANSWER: A. None. The United States is the only industrialized country not to require that employers offer paid sick leave by law. Nearly half of all private sector employees (47%) have no paid sick leave. If sick, they must choose between staying home and losing a day's pay. California is the only U.S. state that offers any paid family leave, and in 2007, San Francisco became the first city in the country to adopt a paid sick leave law.

*Source: U.S. Bureau of Labor Statistics, 2001.*

**22. The top 1% of American families owns more wealth than the bottom:**

- A. 10% combined
- B. 30% combined
- C. 50% combined
- D. 76% combined
- E. 90% combined

ANSWER: A. 90% combined. American economic inequality is greater today than at any time since the 1920s. This represents a reversal from the mid-1970s when inequality was at its lowest level. Between 1979 and 2005, the top five percent of American families saw their real incomes increase 81 percent. During the same period, the lowest 20 percent saw their real incomes decline 1 percent.

*Sources: (1) Arthur Kinneke, Federal Reserve Board of Governors, "Currents and Undercurrents: Changes in the Distribution of Wealth, 1989-2004," January 30, 2006, <http://www.federalreserve.gov/pubs/feds/2006/200613/200613pap.pdf>  
(2) U.S. Census Bureau: Historical Income Data, 1947-2005. <http://www.census.gov/hhes/www/income/histinc/histinctb.html>*