SUMMARY

Shortly after Hurricane Katrina, a FEMA official, rationalizing the agency’s response to the storm, noted that FEMA had run many emergency simulations to evacuate New Orleans but each had overlooked one thing: "We never anticipated that so many of the poor would be so sick."

What FEMA failed to recognize then (as many pondering the lessons of Katrina continue to overlook) was that the poor of New Orleans, like the poor throughout the country, had spent their lives being battered by hundreds of mini-Katrinas in the shape of social and institutional abuse, deprivation and neglect. These "tempests of daily life" take a huge, cumulative toll on the body over the years. The wear and tear of a lifetime of weathering was starkly evident in the large numbers of poor and African American 40-, 50- and 60-year-olds – relatively young people – who limped and wheezed into the New Orleans Superdome and Convention Center with their oxygen, insulin, canes, and wheelchairs.

Unnatural Causes is a four-hour documentary series that for the first time on television sounds the alarm about our huge and disturbing socioeconomic and racial/ethnic disparities in health – and searches for their root causes. But those causes are not what we might expect. While we pour more money into drugs, miracle diets, and new medical technologies – and focus prevention efforts solely on what individuals can do to be healthier – Unnatural Causes crisscrosses the country investigating the growing body of evidence that suggests there is more to our health than bad habits and unlucky genes. In doing so, it circles in on a slow killer in plain view: The social circumstances in which we are born, live, and work can actually get under our skin and put us at risk for stroke, heart disease, asthma, hypertension, diabetes, kidney disease, and even cancer.

Note that the series does not simply illustrate differential health care access and treatment, but why some populations get sicker more often in the first place, i.e., the role of inequality, racism, poverty, segregation, and neglect in breeding disease and despair.
There are by now thousands of studies tracing the social determinants of health. Yet the popular perception remains that poor and minority populations, like those left behind in New Orleans, get sick as a result of bad genes or because they lack the character and discipline to eat right, exercise, and abstain from drugs and booze. Similarly, most Americans still believe it’s top executives who are dropping dead from heart and artery disease when in truth it’s their subordinates. There is virtually no popular media that has brought the research-based counter-story to policy makers or engaged the broad public and mobilized impacted communities.

_Unnatural Causes_ does not dismiss the role individuals can play in safeguarding their own health. On the contrary, healthy behaviors are critical. But they’re only one part of the picture. As University of Michigan epidemiologist (and series advisor) David Williams points out, increasing opportunities, providing education and training for better jobs, investing in our schools, improving housing, integrating neighborhoods, giving people more control over their work – these are as much health strategies as eating well, avoiding smoking, and exercising. These are the stories _Unnatural Causes_ tells.

Broadcast in tandem with the launch of an ambitious public engagement and outreach campaign conducted in association with leading health, public policy and community-based organizations, _Unnatural Causes_ confronts American myths and misconceptions about our health and stimulates a broad debate about what we as a society can and should do to reduce our glaring health disparities.

**OBJECTIVES**

What’s happening to our health? The United States, the richest country in the world, spends twice per person on health care than any other nation. Yet American life expectancy ranks 30th; Costa Ricans live longer. Infant mortality? We’re tied with Hungary, Poland, and Slovakia for next to last among the industrialized nations. Illnesses cost American businesses $260 billion year in lost productivity.

_Unnatural Causes_ explores a paradigm shift that connects our health to not just individual behaviors and health care but to underlying social conditions. As Sir Michael Marmot, chair of the WHO’s Commission on the Social Determinants of Health, put it: “Real people have problems with their lives as well as with their organs. Those social problems affect their organs. In order to improve public health, we need to improve society.” The following six objectives underscore how the series can help move our health discussion “upstream”:

1. Increase public awareness of the alarming socioeconomic and racial disparities in health and their human and financial costs
2. Promote understanding of the ways in which class, racism, and disempowerment get under the skin and influence health outcomes
3. Inject social and economic policy – around housing, racism, education, jobs and wages, community development, social supports, and tax policy – into discussions of health, and evaluate social and economic policies by their impact on health
4. Demonstrate that the damaging effects of health disparities are not limited to the poor and people of color but impact everyone— including the white middle and upper classes.

5. Draw public and policy-maker attention to innovative community-based initiatives for health equity.

6. Provide a new health “story,” one that ties the conventional American frame of individualism (in this case, our desire for a healthy life) to a new language of connectedness, in which social justice is fundamental to health and wellbeing.

*Unnatural Causes* demonstrates that inequality and racism are not abstract concepts but hospitalize and kill even more people than cigarettes. "There is an Axis of Evil,” David Williams says, “an Axis of Evil of inequality, of racism, of poverty, of economic deprivation that is adversely affecting the health of the American people." Our nation has a choice: We can address the racial and economic equalities that lead us down the path to disease now. Or we can pay to repair the bodies later.

**KEY THEMES**

This is a series about how both class and racism affect health. It’s long been known—and is rather obvious—that the poor have worse health than the rich. Edwin Chadwick’s Sanitary Report warned back in 1842 that squalid conditions were devastating England’s urban poor. Nevertheless, the pioneering Whitehall studies of the British civil service turned heads when it revealed unmistakable evidence of a health gradient that appears throughout society.

Whitehall’s surprise finding was not the four-fold difference in morbidity and mortality between the top and bottom quartile of English civil servants, but that those in Level Two—professionals, managers and lawyers one step below the top—had disease rates twice as high as top executives.

This same health gradient has since been found for virtually every disease in every industrialized country in the world. Whether measured by income, educational attainment, or occupational status, there is a socioeconomic gradient to health. And the greater the inequality in a society, the steeper the gradient. The United States has the greatest inequality of all wealthy nations—and the greatest health disparities.

Furthermore, at each socioeconomic level African Americans are worse off than their white counterparts. In many cases, so are other populations of color. And the mortality gap is growing. U.S. Surgeon General Dr. David Satcher and his colleagues calculated that in 2002, 83,570 African Americans died who would not have died if Black-white differences in health did not exist: a rate of 229 "excess deaths" per day. That’s the equivalent of one Boeing 767 being shot out of the sky and killing everyone on board every day, 365 days a year. And they are all Black. According to a by-now landmark study by Drs. Colin McCord and Harold Freeman, African American males over age five in Harlem are less likely to reach age 65 than men in Bangladesh. Among Latinos, the prevalence of diabetes is 100% higher than among white Americans.
But how do socioeconomic status and racism affect our biology? Through what channels does inequality – cumulative disparities in housing, wealth, jobs, and education, combined with the lack of power and control over one’s life – translate into bad health? What is it about our poor neighborhoods, especially poor neighborhoods of color, that is so deadly? How are the lifestyle choices we make (e.g., diet and exercise) constrained by the choices we have?

There’s controversy, of course, over the most critical pathways that lead from inequity to disease, and how best to address our health crisis. But as we tap into the research, several themes emerge that inform our series. These include:

1. **The environment as an independent, disease-causing factor.** How can a neighborhood become what Amani Nuru-Jeter has termed "a reservoir of disease pathogenesis?" Why, for example, is cancer more common among poor smokers than rich smokers who consume the same number of cigarettes? The environmental justice movement has shown us how disadvantaged neighborhoods and communities of color face greater exposure to pathogens and carcinogens: polluting industries, lead paint, asbestos, water pollution, and toxic waste and landfill sites.

But differential exposure to chemicals and other pollutants is only part of the picture. Columbia University’s Mindy Fullilove, Harvard’s Dolores Acevedo-Garcia and many others are investigating how the social, economic and physical characteristics of a place – especially the oppressive conditions of poor, segregated urban space – can affect health, both directly and by influencing behaviors. We know that smoking, diet, drinking, and lack of exercise are huge risk factors for disease. What we don’t readily acknowledge is that behavior isn’t just a mark of individual character, it’s constrained by our circumstances.

A tour of two neighborhoods – one wealthy, one poor – can help us understand how built environments engender healthy or unhealthy choices: Are there supermarkets and grocery stores nearby with fresh produce, or just fast food joints and convenience stores immersed in a sea of billboards advertising alcohol and cigarettes? Are there safe places to walk, jog, bike, or play? Is the neighborhood a happy place to be? How much green space is there? Are there good schools with gym classes, art, music, and afterschool programs? And how does access to what Harvard’s Ichiro Kawachi refers to as "social capital" – including mutual trust, social networks, and community efficacy – affect physical as well as mental well-being?

2. **The social environment as a source of chronic stress.** The lower one’s position in the socioeconomic hierarchy, the greater the exposure to stressful life events such as job loss, eviction, death, crime, and sickness, and the larger the impact of these events on psychological wellbeing. But even the ongoing hassles of daily life are more formidable and stressful in disadvantaged neighborhoods than in wealthier, white neighborhoods: dealing with poor schools, lousy and time-consuming transportation, unresponsive or overaggressive police, lack of childcare, imperious or racist supervisors at work, etc.

Researchers like Rockefeller University’s Bruce McEwen and UCLA’s Teresa Seeman are circling in on the biological pathways by which the chronic stress response can actually change our physiology, especially our neuro-endocrine, immune, and cardiovascular systems. McEwen
calls this measurable wear-and-tear of persistent micro-insults to the system “allostatic load.” He and Seeman are demonstrating how chronic stress puts people at risk of immune system suppression, increased glucose levels, obesity, heart and artery disease, depression, and even impaired memory. As Stanford’s Robert Sapolsky points out: Turn on the stress response for five minutes and it can save your life; turn it on for 30 years and it puts you at risk for every disease of Western man.

There’s also increasing evidence that repeated exposure to stressors early in life inhibits children’s ability to develop "resilience,” increasing the chances they will develop helplessness and depression later in life, additional high risk factors for obesity and illness.

3. Power and control. England’s pioneering Whitehall studies turned conventional wisdom on its head when researchers discovered that it’s not high-powered executives but their underlings who become sick from stress. The finding isn’t as counter-intuitive as it seems, once we understand that pressure can either be an invigorating challenge or a health-damaging threat. Which we experience depends not only on the demands made but whether we perceive that we have the power and resources to cope with those demands. Executives usually do. But power and control over one’s life decrease with each step down the socioeconomic ladder. The lower individuals are ranked in the hierarchy, the greater they struggle to access the money, power, status, knowledge, social connections, and other resources needed to manage and gain control over the many tempests that threaten to upset their lives.

But it’s not only those at the bottom of the ladder harmed by lack of power. So are many middle managers, working people, and especially people of color. High demand / low control jobs are particularly risky. City bus drivers, for example, must keep to a schedule and are penalized when they are late (or early). Yet bus drivers have no power over traffic or unruly passengers. Among San Francisco city bus drivers over age 50, 80% suffer hypertension.

Further down the ladder, stressors mount – and health worsens. That becomes clearer if we look at the women working the gut line at a catfish plant, cashiers on the night shift at 7-11 stores, stock clerks at Wal-Mart, or cleaners of office buildings. Their hopes may be modest – climb up the job ladder, buy a home, send their kids to a good school, live a decent life – but their aspirations to succeed are often thwarted by interpersonal and institutional barriers over which they have little control, including prejudice and racism. This is the stress of marginalization.

Interestingly, Whitehall and other research suggests that above a certain minimal threshold, relative wealth and income inequality seem to have a bigger impact on health than absolute wealth. This is a still controversial finding. Perhaps one explanation can be found in how inequality and stratification increase feelings of hopelessness, frustration, and despair among those closer to the bottom. How social status and hierarchy are linked to health has been studied by Robert Sapolsky and other scientists observing patterns of dominance among baboons and macaques. Several experiments are now demonstrating that when humans – families and communities – have the resources and power to take more control over their lives, their health improves.
4. Genetic reductionism and the myth of innate racial difference. So, despite these findings, why do we pour millions of dollars into pharmacogenomics and single nucleotide polymorphism studies on a quest for the holy grail of a genetic explanation for “racial” differences in health, while projects to research and mitigate the impact of social conditions go begging? The story of BiDil – cardiac medicine aimed at African Americans touted as the first “racial” drug – reveals the reward system that drives so much health policy and research in America. The emphasis on genetic causes behind racial health disparities is not only likely misguided but, by reviving old ideas of innate racial difference, distracts attention from the underlying social determinants of health and lets society off the hook in addressing health inequities. As medical anthropologist William Dressler has said, "So many medical conditions are differentially distributed to African Americans – heart disease, diabetes, hypertension, low birth weight babies – are we to believe that Black people were so evolutionarily unlucky that they got all the genes that predisposed them to every malady?"

In contrast, Dressler, Sherman James, Richard Cooper and others have been investigating why African Americans have among the highest rates of hypertension in the world. This was long assumed to be genetic, a marker of “Blackness” itself. But then it was discovered that West Africans have among the world’s lowest hypertension rates, lower than white Americans. What is it about the lived experience of African Americans, as opposed to “Black” genes, that could create biological feedback loops with profound consequences for health? The National Institute of Health’s CARDIA study (Coronary Artery Risk Development in Young Adults), which has been tracking 5,000 Black and white Americans in four cities over 15 years, provides another opportunity to isolate the social risk factors for coronary artery disease.

5. The interplay of race and class. While socioeconomic status has huge consequences for health, the impact of race is additive and can be found both upstream and independent of class. Upstream educational, housing, and wealth-accumulating opportunities have been shaped by a long history of racism that confers advantage to some groups while disadvantaging others. But racism also works its pathology through several other vectors: isolated and segregated space, the cumulative impact of persistent racist micro-insults on chronic stress, the degree of hope and optimism people have, the location of doctors and hospitals, and differential access to and treatment by the health care system. Each adds an extra burden to people of color no matter their class. But how do you measure the impact of racism? Several groups are looking into this, including the Centers for Disease Control’s Measures of Racism Working Group and the National Research Council.

6. Cumulative disadvantage. Risk factors are cumulative; their impact grows through the life course. Pre-natal and childhood exposures and deprivations matter later in life, even if that child eventually carves a path into the upper middle class. “You can move up,” observes Makani Themba-Nixon, executive director of The Praxis Project, “but you can’t move away.”

Moreover, the root sources of health outcomes can be traced back in time even before conception to previous generations. Past conditions set the starting line for the future. Parents with health deficits tend to have lower birth-weight babies and less healthy children. But more importantly, children don’t just inherit their parents’ constitution, they inherit their wealth. Economists estimate that up to 80% of family wealth comes from intergenerational transfers and home
ownership. Socioeconomic status is very much affected by our past history of discrimination and segregation in the housing market. Though rates of saving are equivalent, today the median household net worth of white families is an astonishing 10 times that of African American families, more than eight times that of Latino families. And that wealth gap is growing, not narrowing. The chances of someone being born poor yet reaching the upper middle class in adulthood are worse today than they were 100 years ago. England, the very symbol of the static, class-cleaved society, now has more class mobility than we do. Horatio Alger is dead.

7. Making a Difference. The structural obstacles to good health can sometimes seem so entrenched and overwhelming that people feel there’s nothing they can do. On the contrary, experience suggests that small changes can yield big benefits. We can see this in other countries and in communities throughout our own. In Seattle, Washington, collaboration between community groups, the public health department, and the local housing agency has resulted in a new mixed-income community, High Point, that explicitly addresses neighborhood health threats while recouping some of its costs through reduced Medicare spending on its residents, especially for asthma and diabetes. Oakland, California, is funneling public health agency funds to community organizing in its El Sobrante neighborhood with the expectation that an empowered citizenry is a healthier citizenry. A large American manufacturer, with prodding from its union, is moving power and responsibility downward, giving its employees a greater stake and a say in their jobs as a way to help cut their staggering health care costs and reduce sick days. The Pima Indians south of Phoenix have reclaimed their traditional water rights and are beginning to farm again. The jury is still out on these promising programs.

But if we look overseas to Sweden, Japan, Great Britain and elsewhere, we can see how social policies have paid off in improved health and life expectancy. One category of policies – such as free universal child care – decouples exposure to health benefits or health threats from an individual’s own wealth level. The other category – such as income supports for parents and redistributive tax policies – works to flatten nations’ inequality.

Class- and race-based inequities in the United States and the health disparities that accompany them are not “natural.” They are the product of decisions that we as a society have made. Consequentially, we can make different ones – other nations already have. Equity and justice are not simply fine-sounding ideals. They have life and blood consequences.