BACKGROUNDERS FROM THE UNNATURAL CAUSES HEALTH EQUITY DATABASE

Childhood / Early Life

Background: The conditions of our early life not only affect how sick or well we are as children, they have an impact on our life-long health and even that of future generations. Just as our income, education and neighborhood environment shape our health as adults, they have even greater consequences for children. Because children are still developing, they are especially vulnerable to deprivation and stressful environments. Children are also the least empowered to protect themselves or change their environments. Circumstances set in motion during the early stages of child development are difficult to overcome later on.

Key Factors:

Socioeconomic Status. Lower socioeconomic status in childhood has been linked repeatedly with lower educational and income levels in adulthood, which in turn predict health status. Children in poor families are about seven times as likely to be in poor or fair health as children in the highest-income families. Those whose parents have not finished high school are over six times as likely to be in poor or fair health as those whose parents are college graduates. Although children in middle-income families are better off than those in poor families, they still fare worse than those at the top.

Among other things, diet, housing conditions, educational quality, and neighborhood environment are a function of class. Nutrition in childhood, for example, affects learning, growth and development, which in turn affect educational success, job prospects and future behavioral patterns. Obese children are more likely to be obese as adults, increasing their risk for serious chronic diseases including diabetes, heart disease, and stroke. Children in disadvantaged situations are also more likely to develop health problems when they are young, further limiting their long-term prospects.

Class differences also affect the quality of care and attention that children receive, in both positive and negative ways. Children whose parents have access to the knowledge, skills, time, money or other resources to create healthy and stimulating home environments benefit in terms of cognitive, brain, physical, emotional and behavioral development. Wealth also conveys other health advantages that last well beyond childhood. For example, people who grew up in a house owned by their parents were less likely as adults to become sick when exposed to a cold virus.

From one generation to the next, healthy children are more likely to grow up to become healthy adults who have healthy children.

Maternal Health. The influence of "social determinants" on health begins even before we are born. Study after study has outlined the ways in which a woman's health, diet and stress level during pregnancy affects her newborn's life chances: everything from

neurological and emotional development to the likelihood of adult obesity. Proper nutrition, prenatal care, and exercise are important, but class, racism, loving relationships and place can also affect pregnant women.

Women who have not finished high school are one and a half times as likely to give birth to a premature or low birthweight baby compared to those who have college degrees. Babies born to a college graduate are twice as likely to survive past their first birthday. Income level and neighborhood conditions also constrain access to healthy foods, quality medical care and opportunities for exercise, while having unpaid bills, job worries, dealing with lousy transportation, and worrying about crime and violence can affect stress levels during pregnancy.

Increasingly, research has shown that life-long exposure to stressful experiences even BEFORE pregnancy can increase a woman's risk of delivering a premature or low birth weight baby, which in turn elevates the child's lifelong risk of chronic health problems. In fact, many researchers hypothesize that the added stress burden of racism through the life course helps explain the persistent African-American/white mortality gap.

Neighborhood Conditions

Children who live in low-income communities are more likely to be exposed to environmental pollutants such as lead, dirty air, toxic mold and vermin - all of which can contribute to chronic ailments and poorer health, especially asthma. At the same time, these neighborhoods are less likely to have access to healthy food options, to parks and public spaces where families can exercise, gather or play, and to jobs and educational opportunities that might provide a path out of poverty.

Violence in school and on the street also exposes children to injury and accidents and triggers conflict and anxiety. Not only does growing up with crime and brutality increase a child's own propensity for destructive behavior, researchers have shown that elevated stress levels chemically interfere with the development of neural pathways - affecting not only normal developmental processes but a child's actual capacity to learn.

Policies that can help young children gain a healthy start include: (1) support for working families: earned income tax credit, paid family leave, flexible work arrangements, guaranteed quality childcare, and universal health care; (2) programs that benefit young children: universal preschool, early reading, parent education, new mother support, more equitable education spending; (3) improvement of neighborhood conditions: revitalization of neglected communities, removal and monitoring of toxic hazards, creation of more quality, affordable housing, better land use and development that limits fast food outlets, encourages grocery stores and other health-promoting local businesses, and builds wealth for poor families.

Chronic Stress

Background: Turn on the stress response for five minutes and it can save your life. But as Stanford biologist Robert Sapolsky observes, turn on the stress response for 30 years, even at a low level, and it can increase your risk for every chronic disease.

Chronic stress, like other conditions that threaten or promote health, is distributed unevenly through society along class and racial lines. Our ability to manage the pressures that might upset our lives is not simply a matter of personality or character; it's tied to our access to power, resources, support networks and opportunities. Both exposures to stressors and access to the resources we need to manage them are tied to our class and social status.

We all experience stress. Our body's stress response is actually a way of protecting us from a perceived danger. In the face of peril, hormones like cortisol and epinephrine increase our heart rate and blood pressure to supply oxygen and glucose to muscles and the brain while shutting down "non-essential" functions like growth and reproduction.

Rockefeller University's Bruce McEwen and UCLA's Teresa Seeman are among those studying how long-term or chronic stress throws our body out of balance, especially our neuro-endocrine, immune and cardiovascular systems. McEwen calls the measurable wear and tear of persistent "micro-insults" to the body *allostatic load*. He and other researchers are demonstrating how chronic stress increases the risk of metabolic syndrome, obesity, diabetes, hypertension, heart and artery disease, stroke, depression, auto-immune diseases, impaired memory, even failure to ovulate in females and erectile dysfunction in males.

There's also increasing evidence that repeated activation of the stress response early in life can literally affect the wiring of the brain, inhibit children's ability to develop "resilience," and increase the chances they will develop helplessness, anger and depression later in life and become more susceptible to obesity and illness.

All of us face pressures in our lives, but our ability to cope - and consequently stay healthy or not - depends on our position on the class pyramid. It's not CEOs who are dropping dead of heart attacks, it's their subordinates. Why? Because those with access to power, resources, support and opportunity have more control over the forces that impinge upon their lives and are better able to manage or escape the demands placed upon them.

People who are lower on the socioeconomic pyramid tend to be exposed to more formidable and ongoing stressors, e.g., job insecurity, unpaid bills, inadequate childcare, underperforming schools, and dangerous or toxic living conditions, crowded homes, even noisy streets. They are also less likely to have access to the money, power, status, knowledge, social connections and other resources they need to gain control over these many tempests that threaten to upset their lives.

But it's not only those at the bottom of the pyramid harmed by stress. So are many middle managers, working people and especially people of color, whose aspirations to succeed are often thwarted by interpersonal and institutional barriers over which they have little control,

including prejudice and racism. High demand / low control jobs are particularly stressful.

Today, chronic stress is widely recognized as a health threat. But suggested solutions usually are limited to individually based interventions like taking vitamin supplements, practicing yoga, or meditating. Although these are helpful, they aren't the whole picture. We also need strategies that challenge the underlying economic and social conditions that imperil our chances for health in the first place.

Social policies like living wage jobs, greater autonomy and control at work, safe, walkable neighborhoods, efficient public transportation, good schools, and quality, affordable housing and paid vacations are all effective ways to reduce stress, though they require a political commitment, not just a personal one. But political engagement is an effective remedy in more ways than one: while improving social conditions improves health, research suggests that the very act of engagement can also be empowering and thus stress reducing. That's a double victory.

Education

Background: Education is an important predictor of health because it both shapes and reflects so many other factors that affect people's life chances. In fact, many public health advocates believe investing in education is the single most effective intervention we can make to improve health outcomes and tackle inequities. One study estimated eliminating educational inequities would have saved eight times as many lives as were saved by medical advances between 1996-2002.

On average, college-educated men live 6.8 years longer than men who have not graduated from high school, women 5.1 years longer. Adults who have not finished high school are more than four times as likely to be in poor or fair health as college graduates. Babies born to mothers who did not finish high school are twice as likely to die before their first birthday compared to those born to college graduates.

Young people with less schooling are more likely to be unemployed or have unstable and unfulfilling jobs, and low literacy is linked to poverty, disadvantage, social exclusion, and ultimately poor health. In 2004, the median income of male college graduates was 60% higher than male high school graduates, and more than twice that of high school drop outs, the highest income differential ever. Those with masters and professional degrees earned even more.

Education also matters because it can provide us with the knowledge, skills, confidence, connections and opportunities we need to negotiate the world and exert greater control over our lives - what experts call the "pile up" of advantage/disadvantage. How well we do and how far we get in our schooling impact not only our future earnings potential but also our mastery of our environment and our ability to navigate institutions and gain access to power - all of which are consequential to success and wellbeing.

Studies show a clear correlation between health and learning at all ages, from early childhood through adolescence to adulthood. For the youngest learners, early reading and literacy programs stimulate brain development, analytical and communication skills, intellect and behavioral patterns. These in turn shape future opportunities and achievement. Yet we are among the few rich countries not to offer free, universal preschool.

Among adolescents, those who stay in school are less likely to engage in risky behaviors, become teen parents, and end up in dead-end jobs without career prospects. Even among adults, improving basic skills and acquiring new ones enables them to pursue better employment opportunities and gain access to other resources.

But educational resources and opportunities in the U.S. are distributed unequally, reflecting larger patterns of racial and class inequities. Differences in school quality, for example, are due in part to deep patterns of residential segregation and differences in school funding.

Dr. Tony Iton, director of Alameda County (CA) Department of Public Health argues that high school graduation rates represent a snapshot of neighborhood conditions - a lens for viewing larger problems and inequities in specific communities and our society as a whole.

In fact, Iton claims that he can predict the life expectancy of a given neighborhood in the county from the high school drop-out rate alone

In California, for example, 90% of students in overcrowded schools are children of color, two thirds of them Latino. Schools in poor districts are notoriously under-resourced, with fewer class offerings, books, computers, enrichment activities and after-school programs. Nationwide, among youth 16 to 24, Latinos accounted for 41% of high school dropouts in 2005, even though they comprise only 17% of the total youth population. Researchers estimate that approximately 2,500 youth drop out of high school every day. In some of the largest school systems in the country - from Baltimore, MD, to Oakland, CA - half of all students are dropping out.

Although many youth later obtain a diploma or GED, the implications of dropping out of high school are enormous, including a higher risk of poverty and a shortened life span. Dr. Iton explains: "Education is huge, because it relates to people's ability to plan and have hope for the future. Without hope for the future, people tend to make short-term decisions," including engaging in riskier behaviors that endanger health.

Today, promising initiatives and ideas to improve our school systems and provide better educational opportunities for everyone abound - but not the commitment to pay for them. We all bear the societal burden of lost productivity, increased disability, higher crime, welfare and prison costs, not to mention the human cost of thwarted hopes, dreams and health.

By foregrounding the life-and-death consequences of educational inequities, perhaps we can find the commitment to create policies that invest in our schools and help forge a long, productive future for all our children.

Food Security

Background: We all know what it means to "eat right." So why do so many people, particularly the poor, turn to fast food outlets and "junk" food?

Food security is a complex issue interconnected with place, economics, and social policies.

Food security means having adequate access to nutritious things to eat. In the developing world, the issue typically is getting *enough* food; in the industrialized world, it's more often a matter of getting the *right* food.

Ironically, high-calorie food is cheap and plentiful in poor urban communities (due to the low cost of corporate food production heavily subsidized by tax dollars), while low-calorie, nutrient-rich food is harder to come by. This leads to a counterintuitive situation in which poverty tends to foster obesity rather than starvation.

The articles and resources in this section discuss the forces that shape our ability to make healthy choices and how different groups are working to improve them.

Key factors:

Access. Many low-income neighborhoods lack access to a full-service supermarket. These so-called "food deserts" are dominated by liquor, fast food, and convenience stores, where produce is not only scarce but comparatively expensive and poor quality. Residents of these areas are more likely to rely on public transportation, further compounding the problem of access.

Time. Many people today, particularly heads of households, work long hours, at multiple jobs or commute to make ends meet. Parents who spend long hours working and commuting have limited time and energy to shop and prepare nutritious meals for themselves and their families. Pre-made meals are fast, easy and affordable.

Marketing. Often, children and teens get their own dinners. Fast food is not only more readily available, the industry bombards youth with billions of dollars of advertising on television, in the neighborhood, and at school. It's no surprise, then, that many kids will make this choice when left to their own devices.

Cost. Simply put, "junk" food costs less than healthy food - for producers as well as consumers. The abundance of cheap additives like corn syrup (a product of government-subsidized corporate agribusiness) drives production and profit for manufacturers. For consumers, University of Washington researchers found that the cost to obtain 1,000 calories from nutrient-rich fruits and vegetables was $18.16, compared to only $1.76 to obtain the same number of calories from energy-rich, highly processed foods. Moreover, the same foods purchased by suburban residents in large supermarkets cost 3% to 37% more for urban dwellers. For people with a limited budget and limited access to better options, it's not a fair choice.

Consequences and Social Policies:

Food insecurity not only impacts nutrition, it also affects learning, brain development, behavior, immune resistance and in turn, job prospects and life chances over the long term. A poor diet also leads to increased risk for obesity, diabetes, cardiovascular problems and even cancer.

Eating right isn't just a matter of making good choices and having self-discipline. Although it's important to educate people about nutrition and diet, our living conditions, socioeconomic status and other outside factors affect the options available to us and our ability to stay healthy.

Policies that would help improve food security include encouraging investment in poor communities; improving public transportation; developing community gardens, farmers' markets and partnerships between local, sustainable growers and low-income neighborhoods; limiting advertising and the availability of junk food in schools; guaranteeing a living wage; and eliminating sugar and corn subsidies to large manufacturers in favor of locally grown fruits and vegetables.

Genetics

Background: Racial patterns of health and disease have little, if anything, to do with genes. Instead, they reflect patterns of social and economic inequity based on socially constructed ideas about race. To put it another way, race (in a fixed biological sense) doesn't cause illness, ***racism*** does.

Media stories regularly attribute racial differences in health outcomes to innate or genetic variation between "races." One such example - repeated on *Oprah* not so long ago - is the "salt retention gene" hypothesis that purportedly explains high rates of hypertension among African Americans. The problem is, there's scant evidence to support these claims.

Here are a few reasons why:

Race doesn't exist biologically. Science has shown that humans simply do not come packaged into a few groups. That's because genes are inherited independently and traits vary "non-concordantly." Skin color doesn't cluster with hair texture, blood type, lactose intolerance or genetic markers for disease. In fact, there's not a single gene, trait or characteristic that separates all the members of one so-called race from all members of another.

Moreover, racial categories are socially constructed, not scientifically based. Ancient civilizations like the Greeks didn't sort people by physical appearance but by language and status. Even today, racial classification varies from one country to the next, and in the U.S., our own categories have changed over time. Scientifically speaking, skin color literally is only skin deep.

Findings on health differences don't support biological notions of race. Disease patterns can be misleading. Many biologists looking to unravel racial differences in health almost instinctively assume there's an innate or genetic cause. After all, our eyes tell us that people are different, don't they? As anthropologist Alan Goodman reminds us, it's easy - but incorrect - to believe that the sun revolves around the earth.

For example, we know that African Americans suffer the highest hypertension rates of any U.S. population. But Richard Cooper and his colleagues found that hypertension rates in western Africa (the ancestral home of many African Americans) are among the lowest in the world, a third less than for African Americans. Meanwhile, Germans have very high hypertension rates, much higher than both white and Black Americans. If predisposition to hypertension were truly "racial," recent African-origin populations would share similar rates of illness, as would the European-origin populations. But they don't.

Other research bears this out. African American women give birth to a disproportionately high number of low-birth weight babies - weighing on average half a pound less than the babies of white American women. But Richard David and James Collins found that babies born to African immigrants to the U.S. weighed the same as the white babies. David and Collins also discovered something else: the daughters of African immigrants delivered babies weighing an average half pound less than those born to white women and their own

mothers. As Collins describes it, "Something is driving this that's related to the social milieu that African American women live in throughout their entire life."

To take another example, almost half of all adult Pima Indians in southern Arizona have Type 2 diabetes, perhaps the highest rate in the world. But their Pima brethren living across the border in Mexico have diabetes rates of less than 7% (similar to the U.S. average). Genes that are believed to identify predisposition to diabetes have so far been found in every population where geneticists have looked, not just among the Pima.

Finally, a few years ago the drug Bidil was touted widely as the first "racial" drug when the FDA approved its use for African Americans with congestive heart failure. No one disputes that Bidil can be an effective treatment, but clinical trials didn't test the drug's effectiveness between populations. In fact, evidence suggests that it works for members of all populations, not just African Americans. The drug company even told Wall Street analysts that it's counting on "off label" use with other groups. But by securing FDA approval for African American use only, the drug company, through a twist in U.S. patent law, was able to extend its exclusive right to Bidil by a dozen years. Race, in this case, is simply a convenient marketing tool to be exploited for profit.

Genes can certainly affect disease risk on an individual level. Also, some populations do have different frequencies of particular "alleles," gene variants, like the A, B & O blood groups. But those allele patterns don't neatly divide along 'racial' lines. People from Lithuania and Papua New Guinea, for example, have the same proportions of AB and O blood.

As sociologist Troy Duster sums it up, the impact of race on disease is not biological in *origin* but in *effect*. Searching within the body for the source of population disease differences diverts our attention from addressing the true social, not biological origins lurking outside the body.

Housing / Neighborhoods

Background: In the United States, street address and zip code are surprisingly good predictors of health. Why? Because the social, economic, and physical environments in which we live powerfully shape our life chances and wellbeing - for better and worse.

Where we live is not simply a matter of personal preference. It has a profound impact on financial security, school quality, job opportunities, safety, as well as access to goods and services. Unfortunately, racial segregation and past housing and loan discrimination have helped create inequities in neighborhood quality and the distribution of wealth and health.

Among other things, communities with lower income and educational levels tend to have higher rates of asthma, obesity, diabetes, heart disease, and child poverty. They are also more likely to have substandard housing, underfunded schools, poor access to grocery stores and supermarkets, and to be located near toxic industries and other sources of pollution.

On the other hand, well-off neighborhoods include many resources that help protect and sustain individual and group health: safe streets, well-maintained public spaces, good schools, libraries and other amenities, community programs, clean air, and good access to jobs and healthy food options.

Several overlapping factors play an important role in shaping health directly and indirectly:

Physical environment. Built space, infrastructure, and environmental quality all have a direct impact on our wellbeing. Old, substandard housing is more likely to have peeling paint, exposing families to dangerous lead levels, as well as pests and mold, which increase the risk of infectious disease and respiratory ailments like asthma. Geographic access to jobs, services and safe places to exercise and play shapes behaviors, choices and economic opportunities. Proximity to polluting industries, waste, freeways, and other hazards affects the air we breathe, the water we drink and the land we live on. Noise pollution also affects our anxiety and stress levels, which increase our risk for chronic illness.

Economic environment. Wealth, employment and economic mobility are important to foster good health, now and in the future. High housing costs threaten food and financial security, while concentrated poverty and a lack of good jobs lead to crime and disinvestment. On the flip side, home ownership brings financial security; attracts public and private investment in businesses, schools and infrastructure; and also promotes neighborhood cohesion - all of which are beneficial to health. Job training and access to good jobs with benefits, decent pay and career ladders help families avoid falling into financial disaster and reduces their risk for premature death and chronic disease.

Social environment. Communities that have strong social networks and foster social inclusion are healthier. Isolation and lack of support not only contribute to illness, they disempower individuals and communities. Neighborhoods where residents gather and help one another can foster belonging, affirmation and increased civic participation. They also have a bigger voice: organized groups can better advocate for their needs, reduce crime

and increase safety, and bring health-promoting resources and services into their environment.

Resources and services. Our access to grocery stores and supermarkets, reliable transportation, clean parks, safe streets, community programs and institutional services reflect larger structural patterns of opportunity and advantage in society. Nevertheless, they impact our ability to make healthy choices, to gain skills and knowledge, to get adequate health care, fire protection and police protection, to avoid injury and live relatively unencumbered by fear, and fundamentally, to ensure that our basic needs are met and that we have a future to look forward to.

Together, these elements determine our health in subtle and obvious ways. Ensuring that every community is the healthiest it can be requires community organizing, political will, and public investment. Strategies to revitalize neglected areas, clean up environmental hazards, improve schools and foster economic development and wealth are critical they but must include and respond to the needs of residents, who more often than not are painfully aware of what is wanting in their communities.

Income & Wealth

Background: Perhaps the biggest predictor of one's health is one's wealth. It's not just the poor who are suffering; every step down the class pyramid corresponds to worse health. Study after study has shown that those at the top of the class pyramid live on average longer, healthier lives than the rest of us. The middle classes fare worse than those on the top, and the poor get sick more often and die sooner.

The greater the inequality in a society, the steeper the gradient. Currently, the United States has the greatest inequality among rich countries - and the worst health inequities. People in the middle are twice as likely to die prematurely (before age 65) as those on top; people at the bottom are three times as likely.

The life expectancy of American men in the highest income group is 8 years longer than for men in the lowest income group, two and a half years longer than for the second highest income group. Wealthy women live almost 7 years longer than poor women. Children in low-income families are seven times as likely to be in poor or fair health as those in high-income families. Poorer adults are three times as likely to have a chronic disease that limits their activity; twice as likely to have diabetes, and are nearly 50% as likely to die of heart disease.

Wealth doesn't just bring more material comfort, it also provides financial security and access to resources that promote opportunities for better health. Higher income affects health at every age, from the beginning of life to adulthood and old age. For adults, wealth is tied to neighborhood quality, work conditions, food security, access to medical care, and the availability of buffers against stress.

For children, the impact of advantages or disadvantages is even greater, because the effect on health is cumulative. The greater proportion of life one spends at the upper end of the class spectrum, the more benefits accrue. Children from affluent families are more likely to grow up in a house owned by their parents and to live in a neighborhood with healthy food options, safe places to play, good schools, libraries and other quality public services all of which help set them on the path to a successful, healthy life.

Children from less affluent families not only lack these advantages, they are more likely to experience conditions that limit their health and ultimately their life chances: injuries, inadequate or delayed health care, physical inactivity, poor nutrition, insecure or substandard housing, and exposure to toxins, high lead levels and violence. The influence of wealth on health begins even before a child is born, shaping the quality of prenatal care an expectant woman receives, her level of stress during pregnancy and her likelihood of delivering a premature or low birth weight baby.

Wealth is an important determinant of health because it has such a profound effect on other conditions. Yet at every socioeconomic level, African Americans, Native Americans and other people of color fare worse than their white counterparts. Racism as a stress factor independent of class partially explains this, but racism for example, in the form of

residential segregation or job discrimination • also directly affects wealth.

Today, the wealth gap in America is growing. The average CEO makes more than 250 times the average worker•s salary, and the top 1% of American households holds more wealth than the bottom 90% combined. In the last 25 years, the income of top earners has increased 81%, while wages for those on the low end of the pay scale have stagnated or declined.

Our health has followed suit. In 1980, the U.S. ranked 14th in the world for life expectancy. In 2007 we ranked 29th. One out of every five American children lives in poverty. Many of the countries that rank higher than we do have policies that protect workers, support families, and provide a safety net for their citizens. These policies typically address income and wealth inequality in one of two ways: (1) they reduce the overall gap so that everyone has sufficient resources to prosper and maintain control over their lives or (2) they loosen the connection between health and wealth by making certain resources available to everyone, not dependent on a family's individual assets.

Examples of policies to reduce the gap include a guaranteed living wage, earned income tax credits, family supports, guaranteed paid vacation and sick leave, secure pensions, and severance pay and job training for unemployed workers. Examples of policies to loosen the wealth-health relationship include universal preschool, better land use and zoning policies, school financing reform, universal health insurance, and stronger environmental protections and better enforcement.

Jobs & Work

Background: As with income and education level, there's a health gradient in society tied to the jobs and work we do. Our position in the pecking order, the nature and stability of our work conditions and employment situation, and our access to power, control and resources all have an impact on our health.

Everyone knows that work can be stressful. But how does job stress get under the skin, and what can be done about it?

The Gradient. Contrary to popular wisdom, it's not CEOs dying of heart attacks, it's their subordinates. In general, those at the top of the job ladder live longer, healthier lives than those in the middle, who in turn fare better than those at the bottom. While much of this advantage is tied to wealth, it's also affected by how much power and autonomy people have at work, their job security, job design, safety of work conditions, and the respect their occupational status commands.

Although we all face pressure, we don't all have the same power over the demands we face or the same resources. Executives and top managers have decision-making authority, they control budgets and their schedules, and they can use their knowledge, leverage and clout to get what they want or need. As top earners, they are also more likely to live in the best neighborhoods, enjoy job perks and benefits, and have the resources to hire help or get away when the stress becomes too great.

Middle managers and supervisors may not be as well off as their superiors, but their position still affords them many advantages, which typically include: employment benefits like group health insurance and access to a retirement plan, sick time and paid vacation, some flexibility or stability with tasks and schedule, training opportunities, money for entertainment or the occasional escape, and a home in a secure neighborhood with decent schools.

Those lowest on the totem pole not only receive the smallest paycheck, they are likely to have less control over their tasks or schedule, less job security, less say in the workplace, less supervisor support, few or no benefits, more hazardous work conditions, more debt, more worries about their child's safety and future, more trouble balancing the demands of work and home, and less access to healthy avenues for stress relief.

Growing Inequality. Since the 1980s, an emphasis on short-term profit, the decline of unions and increased global competition have resulted in an unprecedented transfer of wealth and power to corporate shareholders and executives at the expense of the lives and health of the average worker. The growing wealth gap in the U.S. has corresponded to a decline in our international ranking for life expectancy, infant mortality, child poverty, and other health-related indicators.

Americans are working longer hours than ever before, yet they have less job security, fewer benefits and in some cases are earning lower pay. Companies looking to maximize profits and cut costs are not only moving overseas for cheaper labor, they are quietly undermining

hard-won gains in the American workplace, by replacing permanent full-time positions with part-time workers and non-standard contractors and voiding collective bargaining agreements through legal loopholes. This allows corporations to pay less, deny benefits, exert more control over hiring and firing, and avoid accountability - sometimes skirting legal responsibility altogether.

These new work arrangements produce a cascade of direct and indirect health disruptions: everything from food and housing insecurity to increased family strife, anxiety, job strain, depression, substance abuse, and higher levels of disease risk. They also increase social costs that we all must bear: higher health care costs, increased disability, crime, divorce, and increased costs to the welfare system.

In fact, studies by Dr. Harvey Brenner indicate that unemployment can be measured by increased rates of mortality, domestic abuse, alcoholism, drug use and heart disease.

Other countries have passed legislation to protect workers, lessen inequality and help families. For example, European Union countries guarantee paid sick leave, paid vacation, government or industry-wide pensions, and severance pay following layoffs. Many of these countries also provide paid parental leave, universal preschool, universal health care, new parent support, and social protections for families in poverty. Scandinavian countries have even outlawed job strain.

Race / Racism

Background: More than 100 studies now link racism to worse health. Many people of color experience a wide range of serious health issues at higher rates than do whites, including breast cancer, heart disease, stroke, diabetes, hypertension, respiratory illness and pain-related problems. On average, African Americans, Native Americans, Pacific Islanders and some Asian American groups live shorter lives and have poorer health outcomes than whites. But why?

According to the Centers for Disease Control, African American men die on average 5.1 years sooner than white men (69.6 vs. 75.7 years), while African American women die 4.3 years sooner than white women (76.5 vs. 80.8 years). Vietnamese American and Korean American women suffer some of the highest rates of cervical cancer in the nation; Vietnamese American men die from liver cancer at a rate seven times that of non-Hispanic white men.

Class certainly plays a role. Because of historical discrimination and structural racism, people of color are likely to be less wealthy, to have less education and to live in segregated communities with underfunded schools, insufficient services, poor transportation and housing, and higher levels of exposure to toxic and environmental hazards. A wide body of evidence has shown that wealth predicts health: the higher you are on the class pyramid, the better your health. Every step down corresponds to slightly worse health, from top to bottom. Inequitable distribution of resources helps explain why.

Yet socioeconomic status doesn't account for the whole picture. In many instances, African Americans and other groups fare worse than whites at the same income levels. In fact, infant mortality rates among babies born to college-educated African American women are higher than those of white Americans who haven't finished high school. Recent Latino immigrants, though typically poorer, are healthier than the average American; yet the longer they're here, the more their relative health status declines even as their socioeconomic situation improves. Racism has proven to be a factor affecting health "upstream" and independent of class.

Could there be a genetic reason? Researchers funded by the National Institutes of Health, for example, have spent 40 years and several millions of dollars studying Native Americans in southern Arizona, trying to discover a biological reason for their high rates of Type 2 diabetes. Yet their findings remain inconclusive. Hypotheses like the "salt retention gene" explanation for high rates of hypertension among African Americans have also long been debunked scientifically, although they continue to hold currency in the popular press and public imagination.

In fact, studies comparing birth outcomes among white and Black American women showed that more low birth-weight babies are born to African Americans, but birth outcomes among white Americans and African-born immigrants to America were comparable. Moreover, the daughters of the African immigrants gave birth to low birth-weight babies at the same rate as African Americans.

One risk factor researchers are investigating is how the lived experience of racism can increase chronic stress levels and thus worse health among people of color. According to their thinking, addressing unequal birth outcomes, for example, requires more than just better prenatal care; it also requires that we change the social conditions that produce negative experiences over a lifetime. African Americans have among the worst hypertension rates not because of their genes but because of difficulties they face in their lives.

As sociologist Troy Duster explains, the impact of race on disease is not biological in *origin* but in *effect*. Anxiety, anger, or frustration from racist experiences trigger the body's stress response, which over time, creates wear and tear on the body's organs and systems. Dr. Camara Jones, a leading expert on racism and health at the Centers for Disease Control, puts it this way: "It's like gunning the engine of a car, without ever letting up. Just wearing it out, wearing it out without rest. And I think that the stresses of everyday racism are doing that." Dr. Jones and others are studying three kinds of racism - institutional, interpersonal and internalized - and how each contributes to health.

Whether it takes the form of overt discrimination or structural disadvantage, racism continues to influence how people are treated, what resources and jobs are available, where we are likely to live, how we perceive the world and our place in it, what environmental exposures we face, and what chances we have to reach our full potential. Important policies to address racism and its impact on health include more equitable school funding, better enforcement of anti-discrimination laws, housing mobility programs, better transportation, affirmative action, tax policy and land use, as well as economic revitalization, business investment and wealth accumulation in communities of color.

Social Inclusion

Background: Social inclusion concerns people's basic needs as well as their ability to participate fully in society. In some ways, it encompasses all of the societal and economic conditions - and inequities - that underlie our health: our neighborhood, income, job, opportunities, support network, and other resources. But it also includes a political dimension because it relates to people's involvement in decision-making processes and their access to power and institutions.

The opposite of social inclusion is social exclusion, which can result from racism, discrimination, stigmatization and hostility as well as structural disparities and neglect. When individuals are made to feel less valued or have no control over their work and living conditions, they not only experience increased stress and anxiety but they feel disempowered, contributing to riskier behaviors and abuse, job and income instability, domestic strife, and isolation. Those consequences can in turn lead to higher social costs in terms of health care, welfare, crime, and lost productivity.

Social exclusion is tied to material conditions as well. When people are denied jobs or home loans; they don't have access to decent, affordable housing, a good education, or reliable transportation; they lack sufficient income; they lack opportunities to engage in civic life and can't gain access to other resources vital to their prosperity - all of these increase their likelihood of disease and premature death. For especially vulnerable populations like children, the effects can have a life-long impact even after their conditions improve - what experts like Dr. Jack Shonkoff have termed the "pile up" of risk or disadvantage.

Unlike absolute indicators, social inclusion or exclusion is measured in terms of relative advantage or deprivation within a society. Context matters - after all, the difference between living well or poorly on $1,200 per month depends on the society in which you live. Obviously hunger and homelessness exist even in wealthy nations like the U.S., but relative poverty, for example, gives us a broader picture of basic necessities, including: the ability to fix or replace something that breaks; money for school trips, convenience items and special occasions; good credit; insurance and protections in case of emergency; and collateral for home, car and educational loans.

Relative poverty has a powerful effect on health: People with higher incomes not only live longer, they are healthier. Children in poor families are seven times as likely to be in poor or fair health as children in the highest-income families, and lower-income adults are more likely to smoke, be obese, have diabetes and have heart disease.

Another important component of social inclusion is social support. Today, one in four Americans say they have no one to talk with about important matters - a number that has tripled in the last 20 years. The problem is not individual, it's structural. We work more hours annually than almost every country in the world, even Japan, and we spend on average 50 minutes a day commuting. It's no wonder that many of us are not spending enough time with our families, have cut back on volunteering and outside activities, and feel alone. Isolation is deadly, as researcher Lisa Berkman has shown, increasing the risk of nearly every cause of death.

Strengthening family ties and personal connections is certainly important to improve health. But that's only one piece of the puzzle, because the societal factors that most influence inclusion or exclusion are beyond an individual's control. Investing in our neighborhoods and schools; providing secure jobs with career ladders, good benefits and adequate income; improving work conditions; enforcing civil rights laws; supporting families and children; and above all, creating a society that works for everyone - these are the ingredients for a more inclusive, healthier nation.