



Joel Kreisberg, DC, MA

Dr. Kreisberg holds a Doctor of Chiropractic degree from New York Chiropractic College and a Masters of Arts in Integral Ecology from Prescott College. He is adjunct professor in JFK University's School of Holistic Studies. The author of several books on homeopathy, Dr. Kreisberg has been teaching for over 25 years and maintains a private practice in Berkeley, CA.

Health, Race and Place: What's Prevention Got to do With It?

BY JOEL KREISBERG, DC, MA

Certain groups of people in Alameda County are getting sick and dying prematurely from "unnatural causes." In Alameda County, access to proven health protective resources like clean air, healthy food, and recreational space, as well as opportunities for high quality education, living wage employment, and decent housing, is highly dependent on the neighborhood in which one lives. These inequities cluster and accumulate over people's lives and over time successfully conspire to diminish the ultimate quality and length of life in these neighborhoods.¹

— Alameda County Public Health Department

Recent headlines in newspapers throughout the US called attention to the report released by the Congressional Budget Office entitled *Growing Disparities in Life Expectancy*. The report presented compelling statistical data suggesting that not all persons in America are living longer. In fact, often the report finds that "Individuals with higher lifetime earnings or more education experience lower mortality rates than those with lower lifetime earnings or less education."^{2(p.2)} Reports continue to show that persons of low income or of color are not gaining in life expectancy at the same rate as educated populations. This is one example of what is termed 'The Health Gap.'

The recently released executive summary called *Life and Death From Unnatural Causes* from the Alameda County Public Health Department, concludes that differences between the Oakland Hills versus West Oakland translate into living 15 years less for many West Oakland residents. The community members in West Oakland have a 1.5 times greater incidence of low birth weight, are 2.5 times less likely to be fully vaccinated, are four times more likely not to read at grade level by fourth grade, and are six times more likely to drop out of school. Additionally, persons living in some parts of West Oakland have five times the rate of diabetes. They are twice as likely to die of heart disease and three times as likely to die from stroke. They will die from cancer twice as often as one raised and living in the Oakland hills less than ten miles away!

Understanding the Health Gap

According to the white paper, *Reducing Health Disparities Through Prevention*, written by authors at the Prevention Institute and the California Endowment, (See articles in this issue about Larry Cohen and Prevention Institute), three elements contribute to the health gap: *root factors*, *environmental factors* and *health behaviors*. Root factors, such as poverty, discrimination and oppression, have significant impacts on individuals born into our society which does not treat everyone equally, particularly because of race or color. Root factors are not easily changed, but must be acknowledged for their impact on personal and community health.

Environmental factors include environmental hazards distributed throughout the US disproportionately affecting persons of color. Poor communities are more likely to live in harm's way, often living with chronic exposure due to past industrial management or current industrial commercial loads. Poorer communities also have a disproportionately smaller distribution of health opportunities, such as access to nutritious food and exercise, open space such as parks, access to effective transportation and favorable jobs. In other words, it is not just environmental contamination that contributes to the health gap, it is also the lack of health promoting opportunities that occur in disadvantaged neighborhoods that result in more negative health outcomes. The higher density of fast food chains and/or small liquor stores results in fewer opportunities to make healthy choices and decreased health status among these community members.

Health behaviors make up the third factor in the health gap. Behaviors shaped by environmental factors include unhealthy patterns of eating, limited activity patterns, greater use of tobacco and alcohol and increased exposure to guns and violence. Urban violence is epidemic in US inner cities and the consequence on the

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health of urban populations is significantly negative, resulting in increased mortality. Living in urban communities that have little access to healthy built environments does not create incentives for health behaviors that support positive health outcomes. On the contrary, negative health behaviors, such as poor diet, lack of exercise, excessive use of tobacco, alcohol or drugs, occur more easily.

These local environmental and behavioral factors accentuate continued inequities in access to medical care. Because of increased stressors, persons living in disadvantaged communities require more medical intervention—more screening, diagnosis and treatment. In today's healthcare climate, populations needing the most medical opportunities, often face the least access to care. The 50 million uninsured people in the US are a great cost burden, often using emergency rooms later in their individual disease process. Yet, improved access to primary care will not alter the health gap significantly or affect health disparities because medical intervention alone is not one of the highest primary determinants of health. Medical interventions treat only one person at a time, often coming late in an individual's health trajectory. A more cost effective solution, particularly at a community level, is prevention, which promotes early intervention and an on-going relationship with a primary care professional.

The Whole Environment

Environmental health is more than just the impacts of a toxic environment on human health and well-being. Environmental health encompasses all environmental factors, including the quality of the environment and the cultural and health behaviors that occur as a result of living in a particular environment (the habits that develop due to how our environment interacts with the way we live). Modern citizens are estimated to spend close to 80% of our lives indoors. Children are more likely to be driven rather than walk to school and they spend more time eating in front of a television or computer than playing outside.

Our personal health habits are greatly affected by the social organization of modern living with all its technological advantages. Living in more densely populated cities provides fewer opportunities for interactions with the traditional natural world such as sunlight or clean air. Recently a colleague lamented about how sad it is that so many children in the Los Angeles region have little or no access to parks or open space. This is a common issue for children living in urban environments.

From a medical perspective, the leading causes of death in the US are heart disease, cancer, diabetes and HIV. However, from a broader perspective of health, these deaths might be considered to be a result of tobacco use, dietary and activity patterns, alcohol use, microbial agents, toxic agents, firearms, sexual behaviors, motor vehicle behaviors and illicit use of drugs.³ Disadvantaged communities more frequently experience health disabling stress and conditions that directly and negatively impact personal and community health.

The environment shapes behaviors such that many people have chronic cumulative exposures to high levels of both environmental and social stress, both of which have been proven by studies to have negative long term consequences on health outcomes. Two such early studies are Whitehall I and II. The Whitehall Studies looked at

13 Key Community Health Factors⁵

Equitable Opportunity Factors

1. Racial justice
2. Jobs and local ownership
3. Education

People Factors

4. Social networks
5. Participation & willingness to act for the common good
6. Acceptable behaviors and attitudes

Place Factors

7. What's sold & how it's promoted
8. Look, feel & safety
9. Parks & open space
10. Getting around
11. Housing
12. Air, water & soil
13. Arts & culture

long term health outcomes of four different social classes of workers in the British Civil Service. While the primary focus of the Whitehall studies is on workplace stress, these studies provide ample data on what is called the *social gradient*. Whitehall establishes the relationship between socio-economic status and health outcomes. Simply put, the lower the socio-economic status, the earlier the onset of chronic illness—the social gradient leads to the health gap. (For further discussion of the Whitehall studies, see page 8).

Health disparities are found throughout the United States. Epidemiological studies from the National Institute of Health continue to find that African Americans, Hispanics, Native Americans, and Asian/Pacific Islanders experience striking health disparities, including shorter life expectancy and higher rates of diabetes, cancer, heart disease, stroke, substance abuse, infant mortality, and low birth weight.⁴

Prevention: A Community Approach

Precaution, prevention, wellness and lifestyle are four of the essential ingredients of sustainable medicine in a Green Healthcare system. Advocating for a healthy environment is essential to a place-based health system that is involved with people at the community level, and prevention involving the physical environment can have a huge impact on health outcomes. Prevention Institute, a pioneer organization for developing programs for community health prevention, offers a unique perspective on improving health conditions for low income Americans, shrinking the health gap and saving us all money.

The Prevention Institute model considers the physical place people live, “the geographic area that encompasses the places where people live and work, and socialize, although it can also refer to a group of people who identify around a particular characteristic or experience, such as immigration, faith, age, or sexual orientation.”^{3(p.7)} The Prevention Institute community health approach includes 13 community factors that promote wellness and prevent illness (See sidebar). The 13 key factors either directly influence health and safety outcomes or directly influence behaviors that ultimately influence health and safety outcomes. These factors include three *Equitable Opportunity Factors* – 1) Racial justice, 2) Jobs and local ownership, and 3) Education; three *People Factors* – 1) Social networks, 2) Participation and willingness to act for the common good, and 3) Acceptable behaviors and attitudes; and finally seven *Place Factors* including – 1) What's sold and how it is promoted, 2) Look, feel and safety, 3) Parks and open space, 4) Getting around, 5) Housing, 6) Air, water and soil, and 7) Arts and culture.^{3(p.9)}

Equitable opportunities refers to distribution of opportunities and resources, such as jobs, living wages, access to quality education, and absence of discrimination, all of which affect health outcomes. If individuals are to gather their fair share of health opportunities, wages, education and equity are essential. Social networks, including local living economies, cultural norms and personal relationships influence health outcomes significantly. In fact, social support at work, as well as at home, has considerable impacts on health and illness. Violence, alcohol and drug abuse all erode communication as well as trust in the community. Place factors are all linked



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— Prevention Institute (2006)

to the physical environment including, but not limited, to natural resources—air, water and soil. Other physical factors include access to open space, effective transportation, housing, and cultural aspects such as safety and the impact of the arts on the built environment.

Prevention Institute suggests that a quality of ‘resilience’ emerges from supporting these 13 factors. “A resilient community can be described as having social competence, problem-solving capacity, a sense of identity, and hope for the future.”^{3(p.24)} While traditional prevention strategies focus on reducing risk factors, building resilience is essential for helping communities build on their strengths and successfully contributes to needed change. Community resilience results in community members having a greater vested interest in a successful outcome, enhancing their skills, including health and community literacy, and having the ability to take these gains and apply them to other areas of their lives.^{3(p.24)}

Essential to the Prevention Institute’s approach to prevention is the *Spectrum of Prevention Model*, which distributes interventions at many levels of community complexity including enhancing individuals’ capacity for preventing injury or illness, reaching groups of people with information and resources to promote health and safety, informing providers who will transmit skills and knowledge to others, convening groups and individuals for broader goals and greater impact, adopting regulations and shaping norms to improve health and safety and developing strategies to change laws and influence outcomes.^{5(p.11)} These six levels of intervention offer a layered approach promoting change at all levels of the community.

The Value of Prevention

As we become increasingly aware of our dwindling resources on this planet, our society will continue to seek out ways of maximizing benefits while minimizing expenses. Prevention offers a means for distributing healthcare dollars more effectively by improving overall health outcomes for all members of society thus shrinking the health gap. Preventing disease in the first place is more cost effective.⁶ Rather than discussing who should receive a heart transplant or whether it is appropriate to suspend life support for an end stage patient, prevention allows more equitable distribution of healthcare resources. The value and savings of primary prevention must not be overlooked!

Health, Race and Place

In the United States, there is ample evidence that just as wealthier individuals are getting more wealthy, poorer people are not getting their fair share of health or wealth. This gap in both income as well as health will continue to undermine our ‘just society,’ from meeting the needs of all our members. A primary incentive of many physicians and health professionals is to provide relief for the sick. Learning about and understanding the health gap and the social determinants of health, is essential in moving towards a medical system that provides benefits and services that reach

the most people for the most reasonable dollar value. Given that our environment has created an imbalance in the distribution of toxic chemicals as well as limitations in opportunities for positive health behaviors, it is essential that we shift our medical orientation more towards primary prevention. The benefits of such a shift will quickly blossom into improved health for all Americans as well as for cost savings that will provide more incentives for further preventative steps.

There is an enormous opportunity to make changes and create a broader vision of healthcare in the US which reduces disparities and creates cost savings. This requires leadership that Green Healthcare professionals, who consider the range of social and environmental issues that contribute to health outcomes, can provide by working towards a more just and sustainable healthcare system. The choice begins with each one of us and how we place our own value in the work we do, the health behaviors we practice and how we take care of our environment. Through these actions we can begin to slow the continued erosion of the health of our communities and the environment. The first step begins with our daily choices. Choosing prevention offers a healthier future!

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Spectrum of Prevention

- **Influencing Policy and Legislation**
- **Changing Organizational Practices**
- **Fostering Coalitions and Networks**
- **Educating Providers**
- **Promoting Community Education**
- **Strengthening Individual Knowledge and Skills**



Socio-economic Factors that Impact Health Status

The Whitehall I & II Studies

In 1967, 18,000 men employed by the British Civil Service were enlisted in a series of medical screenings and health questionnaires. This landmark study, Whitehall I, found that employees with the lowest income were much more likely to die than employees with higher salaries. In 1985, the Whitehall II study was initiated, which included both men and women, with the intention of determining what underlies the social gradient. All civil servants between the ages of 35 and 55 in 20 departments in London were initially invited for cardiovascular screenings. Since then, participants have been evaluated for walking function, lung function, dietary behaviors, mental functioning and blood sugar regulation. The study is ongoing, and employees are now retiring, therefore, surveys have been added about retirement and outside of work activities.

This article is a brief summary of the remarkable, disturbing and yet potentially helpful findings of the Whitehall II study. The complete summary can be found in a document available online for free entitled. "Work, Stress, Health: The Whitehall II Study" (<http://www.ucl.ac.uk/whitehallII/findings/Whitehallbooklet.pdf>)

The Social Gradient

The more senior you are in the employment hierarchy, the longer you might expect to live compared to people in lower employment grades. Simply put, across many different diseases and disabilities, the poorest people have the highest mortality rates, middle income people have intermediate rates and the richest members of society live the longest, having the greatest delay of chronic illness or morbidity.

Demand and Control at Work

It is not simply the demand placed on a worker that causes stress, rather, it is the combination of high demand and low control. People in jobs characterized by low control have higher rates of sickness, absences, mental illness, heart disease and pain in the lower back.

Social Support at Work

A higher level of social support in the workplace has protective effects on mental health and reduces absence from sickness. Similarly, lack of support from both supervisors and colleagues has been associated with worse mental and physical health outcomes.

Effort-Reward Imbalance at Work

The relationship between high effort and appropriate reward is essential to good health outcomes. High effort by itself is not stressful, but it must be matched with appropriate rewards, measured in terms of esteem, career opportunities including job security and promotion prospects, and financial remuneration.

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