

Journal of Urban Health: Bulletin of the New York Academy of Medicine, Vol. 82, No. 1, doi:10.1093/jurban/jti001 © The Author 2005. Published by Oxford University Press on behalf of the New York Academy of Medicine. All rights reserved. For permissions, please e-mail: journals.permissions@oupjournals.org Advance Access publication February 28, 2005

EDITORIALS AND COMMENTARIES

The Urban Health "Advantage"

D. Vlahov, S. Galea, and N. Freudenberg

Cities represent the dominant mode of living in the developed world and the pace of urbanization worldwide will continue to accelerate over the coming decades, particularly in the developing world.¹ According to United Nations 2000 forecasts, about half of the world's population is urban and by the year 2030 nearly two thirds of the world's population will live in urban areas.² About 75% of the US population lives in urban areas; according to the Office of Management and Budget, 90% live in more broadly defined metropolitan statistical areas (MSA). The National Center for Health Statistics, using a newer measure of urbanization, based on proximity to urban centers, finds that the proportion of persons living in MSA central city, MSA noncentral city, non-MSA adjacent, and non-MSA nonadjacent are approximately 29.5%, 48.3%, 12.1%, and 10.1% of the US population, respectively.³

Health and disease in urban populations have been the subject of much popular and scientific literature. The historical perspective of cities is that their size and density, coupled with a pace of growth through immigration and commerce that outstrips resources, all result in exposures that produce excess morbidity and mortality.⁴ More recently in the United States, many cities have had a migration of the middle class to suburbs amidst a decaying infrastructure and reduced services in inner cities that results in a worse response to health issues for the remaining population in these areas of concentrated disadvantage. Considering these demographic shifts, the inner cities and, more recently, the suburbs have become the focus of attention for the study of and interventions on health risks.

The dominant conception of urban health in the existing literature is concerned primarily with the "urban health penalty." This approach posits that cities concentrate poor people and expose residents to unhealthy environments leading to a disproportionate burden of poor health, especially in what some have called "inner cities."⁵ In the past 50 years, the departure of the middle class and jobs to the surrounding suburbs in the United States as well as other developed countries has led to intense urban poverty and increased racial segregation leaving cities with diminished capacity to meet the needs of increasingly impoverished populations.⁶ By the late 20th century, United States and some European cities had higher rates,

Vlahov and Galea are with the Center for Urban Epidemiologic Studies, New York Academy of Medicine, New York, New York and Columbia University Mailman School of Public Health, New York, New York; Freudenberg is with the Program in Urban Public Health, Hunter College, City University of New York, New York, New York.

Correspondence: David Vlahov, PhD, Center for Urban Epidemiologic Studies, Room 556, New York Academy of Medicine, 1216 Fifth Avenue, New York, NY 10029-5283. (E-mail: dvlahov@nyam.org)

than their respective nonurban areas, of HIV infection, substance abuse, mental illness, infant mortality, asthma, and other conditions. These disparities led to a resurrection of the earlier concept of "urban health penalty."^{7,8} The "urban health penalty" concept draws specific attention to the poor health conditions that persist in many inner cities,⁹ describes the resulting inequalities in health,¹⁰ and points to the necessity improving health conditions particularly among disadvantaged urban populations. However, this approach tends to equate "urbanness" with issues of disadvantage, and urban health becomes synonymous with conditions among the minority poor of the inner cities. In so doing, this approach fails to recognize that cities have many positive aspects, such as high levels of social support and accessible health care. In addition, this approach does not consider the specific characteristics of cities that may be associated with poor health nor the many factors in addition to poverty that account for urban population.

We suggest that this view of health is limited and does not consider emerging evidence that living in cities might instead confer an advantage and be accompanied by substantial salutogenic characteristics. An "urban health advantage" perspective emphasizes the health benefits of city living. Eberhardt and colleagues,¹¹ using a US census definition of urban/rural, noted that the proportion of urban/rural populations that are below the poverty level is similar (15 vs. 18%) as is the proportion of those with private insurance (69 vs. 64%) or who are Medicare beneficiaries (20 vs. 23%). However, health outcomes tend to be somewhat better for those who live in cities. The proportion, who describe their health status as fair/poor is somewhat lower in urban than rural areas (21 vs. 28%). Likewise, the death rates per 100,000 for age 1–24 years old among males in urban areas is 60 versus 80 in rural; the corresponding figures for females is 30 and 40.

Some data show that health indicators are not only better in urban than rural areas (especially in less wealthy nations) but that the urban poor fare better than the nonurban poor.¹² For example, the infant mortality rate (per 1,000 live births) for the combined areas of North Africa, sub-Saharan Africa, Asia, and Latin America using the Demographic and Health Surveys was 86 for rural areas, 75 for the urban poor, and 56 for the urban nonpoor. Similarly, height-for-age z scores (as a measure of stunted growth due to poor nutrition and disease) among children 3–36 months of age, by residence and poverty status using the Demographic and Health Surveys in these same regions were 173.51 for all rural children; 145.43 for the urban poor; and 109.37 urban nonpoor.¹² These indicators suggest that even when controlling for poverty, health in cities is better than in nonurban areas.

What accounts for this "urban health advantage?" Several hypotheses warrant further investigation. One possibility is that the proximity of wealth and poverty within cities brings benefits to those less well-off. The relationship between income inequality and health are complex, depending on outcomes selected and time lags, and the literature is mixed in its conclusions.¹³ Wen et al.¹⁴ in 2003 found that measures of neighborhood affluence were positively associated with health even after adjusting for neighborhood-level poverty, income inequality, aggregated educational attainment, and lagged levels of neighborhood health. The rationale for this finding is that a proximity of affluence, more evident in denser urban than rural areas, may help "to sustain neighborhood social organization which in turn positively affects health."¹⁴ The presence of affluent members of society may attract the attention of politicians, and government agencies, and help to win external funding, as well as provide a strong base for civic and other community-based activities. Thus, socioeconomic heterogeneity, one of the hallmarks of cities, may bring benefits such as health care and education within the reach of the more disadvantaged urban residents.¹²

A second urban characteristics that may contribute to health advantage is the availability of higher levels of social support and greater social cohesion in urban than nonurban areas. Both social support and social cohesion are associated with a number of positive health outcomes.¹⁵ Factors that may contribute to higher levels of support in urban areas include the previously described presence of wealthier individuals, who can better afford to provide instrumental support to their neighbors; denser social networks, offering more opportunities for support; and the availability of multiple communities of identity (e.g., ethnic, cultural, professional, geographic) offering urban residents many opportunities to acquire the benefits of cohesion with others.¹⁶

A third possible explanation is that cities offer more access to the necessities of life. Dense populations and wealth make cities attractive venues for markets including those that sell food, housing, health care, and education, among others. In both the developed and the developing world, healthy food, a wide variety of housing opportunities, fitness centers, and medical care are generally more available in urban than nonurban areas. For example, urban residence has been associated with consuming more fruits and vegetables.¹⁷ Even if markets distribute these goods inequitably within cities, the absolute advantage over nonurban areas may contribute to health. Throughout the world, millions of people have voted with their feet to move to cities in search of better employment, demonstrating their belief that opportunities for advancement were greater in urban than nonurban areas.

Fourth, cities may have a physical environment that is conducive to health. For example, compared to suburbs, cities may encourage walking, the most common form of physical activity for adults.¹⁸ Surveys show that residents of poor neighborhoods are more likely to walk than those in less disadvantaged areas,¹⁹ suggesting that physical design may help to overcome some of the health burdens of low-income urban neighborhoods.

Finally, cities through their size and density offer the potential for political mobilization and social movements, enabling urban populations to win more resources for health, another possible route to a health advantage.^{12,20} Historically, cities have often preceded nonurban areas in setting housing standards, establishing a public health infrastructure, and improving public education, often in response to organized efforts for change.

The picture of an urban health advantage in the United States becomes more problematic when using more sophisticated definitions of urban. Moving from the dichotomy of urban/rural or MSA/non-MSA to area definitions of proximity in the United States shows that rates of disease or adverse health outcomes tend to be worse in "MSA central cities" than "MSA noncentral city" or "non-MSA adjacent" but that the "non-MSA nonadjacent" (or truly rural) is similar to the MSA central city. For example, the respective rates for these four "proximity" grouping as they relate to a high negative affect (as a mental health indicator) were 9.3% (MSA central cities), 6.7% (MSA noncentral cities), 7.3% (non-MSA adjacent), and 9.1% (non-MSA nonadjacent, i.e., rural).³ This pattern has been observed for some other disease and health outcomes suggesting that an "urban health advantage" may not apply equally across segments of US cities for all outcomes, and that parts of urban areas might have similar outcomes to rural areas so that both require special attention. The reasons for these patterns can be suggested but not explained by presenting data in this way, and clearly, the urban health penalty versus advantage needs closer inspection and action.

In conclusion, although urban health as a concept frequently conjures images that range from the squalor of cities at the dawn of the Industrial Revolution through the current conditions among many disadvantaged inner city areas, we suggested that cities may frequently confer a health advantage to those living within them. In fact, it may not be useful to think of the urban penalty and the urban advantage approaches as mutually exclusive. All cities have characteristics that both promote and harm health. The ultimate health status can be viewed as the sum of the urban advantages minus the sum of the penalties. We note that the plight of the disadvantaged in cities remains as a core area of concern in urban health. However, identifying more clearly those characteristics of cities that contribute to the urban health advantage will help us to achieve the goal of healthier cities for all.

REFERENCES

- 1. Brockerhoff MP. An urbanizing world. Popul Bull. 2000;55:3-4.
- 2. United Nations, 2000. World Urbanization Prospects. The. 1999 Revision: Data Tables and Highlights, United Nations, Department of Economic and Social Affairs, Population Division, New York 2000.
- Jonas BS, Wilson RW. Negative mood and urban versus rural residence: using proximity to metropolitan statistical areas as an alternative measure of residence. Advance Data from Vital and Health Statistics, no. 281. Hyattsville, MD: National Center for Health Statistics; 1997.
- 4. Grob GN. *The Deadly Truth: A History of Disease in America*. Cambridge, MA: Harvard University Press; 2002.
- 5. Wasylenki DA. Inner city health. CMAJ. 2001;164:214-215.
- 6. Wilson WJ. When Work Disappears: The World of the New Urban Poor. New York, NY: Knopf; 1996.
- 7. American College of Physicians. Inner-City Health Care. Ann Intern Med. 1997;127:485–490.
- 8. Vlahov D, Galea S. Urbanization, urbanicity, and health. J Urban Health. 2002;79: S1-S12.
- 9. McCord C, Freeman H. Excess mortality in Harlem. N Engl J Med. 1990;322:173-177.
- 10. Geronimus AT, Bound J, Waidmann TA, Colen CG, Steffick D. Excess mortality among Blacks and Whites in the United States. *N Engl J Med.* 1996;335:1552–1558.
- 11. Eberhardt M, Ingram D, Makuc D, et al. Urban and Rural Health Chartbook. Health United States, 2001. Hyattsville, MD: National Center for Health Statistics; 2001.
- 12. Montgomery MR, Stren R, Cohen B, Reed H, eds. Panel on Urban Population Dynamics: Cities Transformed: Demographic Change and its Implications in the Developing World. Washington, DC: National Academies Press; 2003.
- 13. Lynch J, Smith GD, Harper S, et al. Is income inequality a determinant of population health? Part 1. A systematic review. *Milbank Q*. 2004;82:5–99.
- 14. Wen M, Browning CR, Cagney KA. Poverty, affluence, and income inequality. Neighborhood economic structure and its implications for health. *Soc Sci Med.* 2003; 57:843-860.
- 15. Kawachi I, Berkman LF. Social ties and mental health. J Urban Health. 2001;78: 458–467.
- Wandersman A, Nation M. Urban neighborhoods and mental health. Psychological contributions to understanding toxicity, resilience, and interventions. *Am Psychol.* 1998;53:647–656.
- 17. Lee RE, Cubbin C. Neighborhood context and youth cardiovascular health behaviors. *Am J Public Health*. 2002;92:428–436.
- 18. Owen N, Humpel N, Leslie E, Bauman A, Sallis JF. Understanding environmental influences on walking; Review and research agenda. *Am J Prev Med*. 2004;27:67–76.
- 19. Ross CE. Walking, exercising, and smoking: does neighborhood matter? Soc Sci Med. 2000;51:265–274.
- 20. Mayer M. The onward sweep of social capital: causes and consequences for understanding cities, communities and urban movements. *Int J Urban Reg Res*. 2003;27.1:110–132.