

Urban Health Literature Review

February 2005

Topic A. Theoretical and methodological frameworks on urban health

Topic B. Impact of infrastructure on urban population health

Topic C. Impact of social, physical and built environments on urban health

Topic D. Exploratory analyses on the relationship between urban living and health

Topic E. Other publications worth noting

Topic A. Theoretical and methodological frameworks on urban health

1. Source: Annu Rev Public Health. 2004 Aug 18; [Epub ahead of print]

Title: **Urban Health: Evidence, Challenges, and Directions.**

Author: **Galea S, Vlahov D.**

Affiliation: Center for Urban Epidemiologic Studies, New York Academy of Medicine, and Department of Epidemiology, Joseph T. Mailman School of Public Health, Columiba University, New York, NY 10029 sgalea@nyam.org, Center for Urban Epidemiologic Studies, New York Academy of Medicine, and Department of Epidemiology, Joseph T. Mailman School of Public Health, Columiba University, New York, NY 10029 dvlahov@nyam.org

Urbanization is one of the most important demographic shifts worldwide during the past century and represents a substantial change from how most of the world's population has lived for the past several thousand years. The study of urban health considers how characteristics of the urban environment may affect population health. This paper reviews the empirical research assessing urban living's impact on population health and our rationale for considering the study of urban health as a distinct field of inquiry. The key factors affecting health in cities can be considered within three broad themes: the physical environment, the social environment, and access to health and social services. The methodologic and conceptual challenges facing the study of urban health, arising both from the limitations of the research to date and from the complexities inherent in assessing the relations among complex urban systems, disease causation, and health are discussed. Expected online publication date for the Annual Review of Public Health Volume 26 is March 17, 2005. Please see http://www.annualreviews.org/catalog/pub_dates.asp for revised estimates.

2. Source: Acad Med. 2004 Dec;79(12):1133-8.

Title: **Cities and health: history, approaches, and key questions.**

Author: **Vlahov D, Gibble E, Freudenberg N, Galea S.**

Affiliation: Center for Urban Epidemiologic Studies, New York Academy of Medicine, New York, New York 10029, USA.

The majority of the world's population will live in cities in the next few years, and the pace of urbanization worldwide will continue to accelerate over the coming decades. Such a dramatic demographic shift can be expected to have an impact on population health. Although there has been historic interest in how city living is associated with health, this interest has waxed and waned and a cogent framework has yet to evolve that encompasses key issues in urban health. In this article, the authors discuss three alternate approaches to the study of urban health today; these include considering urban health from the perspective of a presumed urban health penalty, from an urban sprawl perspective, and more comprehensively, considering how urban living conditions may be associated with health. The authors also propose three key questions that may help guide the study and practice of urban health in coming decades. These include considering what specific features of a are causally related to health, the extent to which these features are unique to a particular city or are different between cities, and ultimately, to what extent these features of cities are modifiable in order to allow interventions that can improve the health of urban populations.

3. Source: Acad Med. 2004 Dec;79(12):1130-2.

Title: **Urban health: a look out our windows.**

Author: **Fleischman AR, Barondess JA.**

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Approximately 80% of Americans live in cities or immediately adjacent communities. Such urban environments are complex amalgams of people of disparate backgrounds, economic status, and expectations, with extraordinary disparities in health status and outcomes between groups just blocks apart. Urban health as a framing paradigm is of recent vintage and offers a perspective on health and disease that integrates clinical medicine and public health and draws on the social and political sciences to seek understanding of the impact of cities on the health of populations and individuals. Ironically, disparate outcomes and increased mortality among poor minority populations in cities are not primarily related to the consequences of the urban epidemics of drugs and violence but rather are due to the increased prevalence and severity of common diseases such as asthma, cardiovascular disease, diabetes, and kidney disease. Several factors may be responsible for such disparities, including stress, racism, perceptions of deprivation, economic inequalities, and lack of access to quality health care. It is time for leaders in medical education and health care delivery to focus on the populations that surround their institutions in order to study urban health and meet the challenge of caring for all the residents of our cities.

4. Source: Int J Epidemiol. 2004 Aug;33(4):777-8. Epub 2004 May 27.

Commentary: Beyond urban-rural comparisons: towards a life course approach to understanding health effects of urbanization.

Author: **Kinra S.**

5. Source: Int J Epidemiol. 2004 Aug;33(4):730-1. Epub 2004 Mar 24.

Commentary: Urbanization and the life course.

Author: **Blane D.**

6. Source: Acad Med. 2004 Dec;79(12):1198-202.

Title: **Urban bioethics: adapting bioethics to the urban context.**

Author: **Blustein J, Fleischman AR.**

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Urban bioethics is an area of inquiry within the discipline of bioethics that focuses on ethical issues, problems, and conflicts relating to medicine, science, health care, and the environment that typically arise in urban settings. Urban bioethics challenges traditional bioethics (1) to examine value concerns in a multicultural context, including issues related to equity and disparity, and public health concerns that may highlight conflict between individual rights and the public good, and (2) to broaden its primary focus on individual self-determination and respect for autonomy to include examination of the interests of family, community, and society. Three features associated with urban life-density, diversity, and disparity-affect the health of urban populations and provide the substrate for identifying ethical concerns and value conflicts and creating interventions to affect population health outcomes. The field of urban bioethics can be helpful in creating ethical foundations and principles for public health practice, developing strategies to respect diversity in health policy in a pluralistic society, and fostering collaborative work among educators,

social scientists, and others to eliminate bias among health professionals and health care institutions to enhance patients' satisfaction with their care and ultimately affect health outcomes. Educational programs at all levels and encompassing all health professions are needed as a first step to address the perplexing and important problem of eliminating health disparities. Urban bioethics is both contributing to the social science literature in this area and helping educators to craft interventions to affect professional attitudes and behaviors.

7. Source: *Am J Hum Biol.* 2004 Jul-Aug;16(4):395-404.

Title: **Rural-to-urban migration in Latin America: an update and thoughts on the model.**

Author: **Dufour DL, Piperata BA.**

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Urbanization is an important demographic phenomenon, and in Latin America it transformed the settlement pattern from rural to predominantly urban in less than 50 years. Understanding the biological consequences of this change in settlement pattern is an important challenge for human biologists. One approach to understanding the effects of urban environments on human biology has been to study rural-to-urban migrants. In Latin America this research has shown that 1) the fertility of migrants tends to be intermediate between that of rural and urban populations, and 2) migrants tend to suffer higher rates of mortality and morbidity, at least initially, than long-term urban residents. There is some indication that the actual physical conditions under which migrants live in urban areas—and these tend to be among the most impoverished—are more important variables than migrant status per se. Studying rural-to-urban migrants requires careful attention to a number of conceptual issues. One issue is the definition of rural and urban. These two types of settlements are no longer as distinct as they once were, and "urban" can mean very different things in different places. Another issue is the complexity of current migration patterns. The classic case of people moving from a distinctly rural setting to a distinctly urban one and staying there for the remainder of their lives is not the norm. Third, the urban environments of large cities are extraordinarily heterogeneous environments with enormous socioeconomic differentials in health. Hence, it matters where in the urban environment the migrants live.

8. Source: *Sci Total Environ.* 2004 Dec 1;334-335:489-97.

Title: **An integrated methodology to assess the benefits of urban green space.**

Author: **De Ridder K, Adamec V, Banuelos A, Bruse M, Burger M, Damsgaard O, Dufek J, Hirsch J, Lefebvre F, Perez-Lacorzana JM, Thierry A, Weber C.**

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The interrelated issues of urban sprawl, traffic congestion, noise, and air pollution are major socioeconomic problems faced by most European cities. A methodology is currently being developed for evaluating the role of green space and urban form in alleviating the adverse effects of urbanisation, mainly focusing on the environment but also accounting for socioeconomic aspects. The objectives and structure of the methodology are briefly outlined and illustrated with preliminary results obtained from case studies performed on several European cities.

9. Source: *Acad Med.* 2004 Dec;79(12):1139-47.

Title: **Health disparities based on socioeconomic inequities: implications for urban health care.**

Author: **Fiscella K, Williams DR.**

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Health is unevenly distributed across socioeconomic status. Persons of lower income, education, or occupational status experience worse health and die earlier than do their better-off counterparts. This article discusses these disparities in the context of urban medical practice. The article begins with a discussion of the complex relationship among socioeconomic status, race, and health in the United States. It highlights the effects of institutional, individual, and internalized racism on the health of African Americans, including the insidious consequences of residential segregation and concentrated poverty. Next, the article reviews health disparities based on socioeconomic status across the life cycle, beginning in fetal health and ending with disparities among the elderly. Potential explanations for these socioeconomic-based disparities are addressed, including reverse causality (e.g., being poor causes lower socioeconomic status) and confounding by genetic factors. The article underscores social causation as the primary explanation for health disparities and highlights the cumulative effects of social disadvantage across stages of the life cycle and across environments (e.g., fetal, family, educational, occupational, and neighborhood). The article concludes with a discussion of the implications of health disparities for the practice of urban medicine, including the role that concentration of disadvantage plays among patients and practice sites and the need for quality improvement to mitigate these disparities.

10. Source: *Coll Antropol.* 2004 Dec;28(2):509-40.

Title: **Environmental stress and adaptational responses: consequences for human health outcomes.**

Author: **Garruto RM, Little MA, Weitz CA.**

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With the dramatic pace of modernization of the world's population, human adaptation as a theoretical construct and paradigm will likely become a focal scientific issue involving scientists from many disciplinary areas during the 21st Century. Macro and micro environments are in rapid flux and human populations are exposed to rapid change. The concept of adaptation, at least in the field of biological anthropology and human biology, will likely remain tied to evolutionary processes and concepts of selection and fitness. In this paper, we discuss the theoretical constructs of adaptation and adaptability and select three current examples from our ongoing research that involve studies of adaptation and evolutionary processes in modernizing populations in different locations worldwide.

Topic B. Impact of infrastructure on urban population health

11. Source: *Acad Med.* 2004 Dec;79(12):1162-8.

Title: **The role of U.S. public hospitals in urban health.**

Author: **Anderson RJ, Boumbulian PJ, Pickens SS.**

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Public hospitals in the United States play a key role in urban health. In many metropolitan communities, public hospitals maintain the health care safety net. Most urban public hospitals have evolved to not only provide care for the indigent but also to serve their communities in other ways, including serving as major providers for tertiary services such as trauma and those that support homeland security; serving as the foundation for primary care services; continuing to train a significant number of physician, nurses, and other medical personnel; and providing laboratories for clinical medical research. Federal budget cuts such as those in the Balanced Budget Act of 1997, recent state budget deficits, competition for Medicaid Managed Care, and the growth in the number of uninsured have led to a decline in revenues among urban public hospitals. To be better stewards of scarce resources, public hospitals have moved to reduce inpatient demand by adopting prevention strategies that are aimed at addressing the determinants of health, the complex interactions among social and economic factors, the physical environment, and individual behavior. These factors contribute to health status and offer opportunities to intervene and

improve community health. Urban public hospitals, to be successful in the next stage of their evolution, need to learn to manage the "in-betweens"--partnering with governmental and nongovernmental entities to identify and work together on common health and safety issues. If public hospitals engage the community successfully, building trust and establishing new capability and capacity, urban public hospitals will survive, evolve, and continue their tradition of service.

12. Source: Soc Sci Med. 2004 Sep;59(6):1219-29.

Title: **Local services and amenities, neighborhood social capital, and health.**

Author: **Altschuler A, Somkin CP, Adler NE.**

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Recent work on health and place has examined the impact of the environment on health. At the local level, research has followed several strands, such as contextual effects of neighborhoods, the impact of differential access to services and amenities, effects of a neighborhood's collective efficacy, and the relationship between social capital and health. Of these four approaches, social capital has generated the most debate; some scholars discuss social capital as a key epidemiological variable, while others discount or dismiss its utility. We undertook this research to assess whether the concept of social capital could increase our understanding of the impact of neighborhoods on residents' health. We utilized key informant interviews and focus groups to understand ways in which residents of diverse neighborhoods in one large California city perceived that their local communities were affecting health. We argue in this paper that using the term "social capital" to discuss social resources and their mobilization in a particular neighborhood highlights the ways in which social resources can vary in relation to economic resources, and that residents of neighborhoods with differing levels of services and amenities face different issues when mobilizing to improve their neighborhoods. Additionally, the projects that people invest in vary by neighborhood socioeconomic status. We draw on the paired concepts of "bridging" and "bonding" social capital, and discuss that while stores of bonding social capital may be more uniform across neighborhoods of varying SES, bridging social capital tends to be found in greater amounts in neighborhoods of higher SES which allows them greater success when mobilizing to improve their neighborhoods.

13. Source: Sci Total Environ. 2004 Dec 1;334-335:481-7.

Title: **Sustainable development of urban transport systems and human exposure to air pollution.**

Author: **Colville RN, Kaur S, Britter R, Robins A, Bell MC, Shallcross D, Belcher SE; D.A.P.P.L.E. Project Co-investigators.**

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DAPPLE (Dispersion of Air Pollution and Penetration into the Local Environment, <http://www.dapple.org.uk>) is a major research project that will provide the understanding necessary to assess the sustainability of urban road transport in terms of exposure to traffic-related air pollution as an alternative to current indicators based on emissions, roadside, or far-from-road air pollution levels. The methodology is described, which combines on-street and laboratory measurement with modelling of the movement of air, vehicles, and vehicle exhaust emissions. The relationship between this kind of assessment and more realistic indicators of sustainability is discussed. The value of large-scale interdisciplinary research in this area is thus demonstrated.

14. Source: Sci Total Environ. 2004 Dec 1;334-335:427-34.

Title: **Valuation of social and health effects of transport-related air pollution in Madrid (Spain).**

Author: **Monzon A, Guerrero MJ.**

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Social impacts of pollutants from mobile sources are a key element in urban design and traffic planning. One of the most relevant impacts is health effects associated with high pollution periods. Madrid is a city that suffers chronic congestion levels and some periods of very stable atmospheric conditions; as a result, pollution levels exceed air quality standards for certain pollutants. This paper focuses on the social evaluation of transport-related emissions. A new methodology to evaluate those impacts in monetary terms has been designed and applied to Madrid. The method takes into account costs associated with losses in working time, mortality and human suffering; calculated using an impact pathway approach linked to CORINAIR emissions. This also allows the calculation of social costs associated with greenhouse gas impacts. As costs have been calculated individually by effect and mode of transport, they can be used to design pricing policies based on real social costs. This paper concludes that the health and social costs of transport-related air pollution in Madrid is 357 Meuro. In these circumstances, the recent public health tax applied in Madrid is clearly correct and sensible with a fair pricing policy on car use.

15. Source: East Afr Med J. 2004 Aug;81(8):422-6.

Title: **Impact of waste disposal on health of a poor urban community in Zimbabwe.**

Author: **Makoni FS, Ndamba J, Mbatia PA, Manase G.**

Affiliation: Institute of Water and Sanitation Development, Harare, Zimbabwe.

OBJECTIVE: To assess excreta and waste disposal facilities available and their impact on sanitation related diseases in Epworth, an informal settlement on the outskirts of Harare. **DESIGN:** Descriptive cross-sectional survey. **SETTING:** This was a community based study of Epworth informal settlement. **SUBJECTS:** A total of 308 households were interviewed. Participating households were randomly selected from the three communities of Epworth. Secondary medical archival data on diarrhoeal disease prevalence was collected from local clinics and district health offices in the study areas. **RESULTS:** Only 7% of households were connected to the sewer system. The study revealed that in Zinyengere extension 13% had no toilet facilities, 48% had simple pits and 37% had Blair VIP latrines. In Overspill 2% had no toilet facilities, 28% had simple latrines and 36% had Blair VIP latrines while in New Gada 20% had no toilet facilities, 24% had simple pits and 23% had Blair VIP latrines. Although a significant percentage had latrines (83.2%), over 50% of the population were not satisfied with the toilet facilities they were using. All the respondents expressed dissatisfaction with their domestic waste disposal practices with 46.6% admitting to have indiscriminately dumped waste. According to the community, diarrhoeal diseases were the most prevalent diseases (50%) related to poor sanitation. Health statistics also indicated that diarrhoea was a major problem in this community. **CONCLUSION:** It is recommended that households and the local authorities concentrate on improving the provision of toilets, water and waste disposal facilities as a way of improving the health state of the community.

Topic C. Impact of social, physical and built environments on urban health

16. Source: Presse Med. 2004 Nov 6;33(19 Pt 1):1323-7.

Title: **[The impact of air pollution on health. The "Programme de Surveillance Air et Sante 9 villes" (Air and Health surveillance program in 9 cities)]**

[Article in French]

Author: **Eilstein D, Declercq C, Prouvost H, Pascal L, Nunes C, Filleul L, Cassadou S, Le Tertre A, Zeghnoun A, Medina S, Lefranc A, Saviuc P, Quenel P, Campagna D.**

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OBJECTIVES: To quantify the short term effects of air pollution on mortality and hospitalisation for cardiovascular or respiratory disorders in the nine French cities (Bordeaux, Le Havre, Lille, Lyon, Marseille, Paris, Rouen, Strasbourg and Toulouse) of the Surveillance Air et Sante program. **METHODS:** Data were available on mortality and hospitalisation were available, respectively, from 1990 to 1997 and 1995 to 1999. Exposure data were the concentrations of sulphur dioxide, particles with a diameter of less than or equal to 10 μm , black smoke, nitrogen dioxide, ozone, and carbon monoxide. The analysis assessed the relationships, in each of the cities, between the daily numbers of deaths and hospitalisations and the daily levels of polluting agents, taking into account confounding factors. A combined relative risk was calculated for all the cities. The number of deaths and hospitalisations attributable to air pollution was then estimated for each of the cities, based on the relative risk. **RESULTS:** Significant relationships were found for mortality, from whatever cause, and for hospitalisations for respiratory disorders in children aged under 15. If the levels of air pollution were reduced to 10 $\mu\text{g}/\text{m}^3$ in the nine cities, 2800 premature deaths and 750 hospitalisations for respiratory disorders in children would be avoided, every year. **CONCLUSION:** Today, it is possible to assess the benefits of reducing air pollution in terms of health in the short term. These analyses would provide a sanitary dimension to the strategies for the reduction of urban pollution on local and European level.

17. Source: J Epidemiol Community Health. 2004 Aug;58(8):692-7.

Title: **Associations of smoking prevalence with individual and area level social cohesion.**

Author: **Patterson JM, Eberly LE, Ding Y, Hargreaves M.**

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STUDY OBJECTIVE: To discover if area level social cohesion, neighbourhood safety, and home safety are associated with current cigarette smoking among adults after adjustment for concentrations of poverty and low education. **DESIGN:** Cross sectional survey of a random sample of adults, stratified by 19 geographical areas. **SETTING:** SHAPE, Survey of the Health of Adults, the Population, and the Environment-conducted in 1998 by the Hennepin County Community Health Department and the Minneapolis Department of Health and Family Support in Minnesota. **PARTICIPANTS:** 5256 men and 4806 women, 18 years and older, randomly selected from 19 geographical areas in an urban county. **MAIN RESULTS:** Overall, 21.2% of survey respondents reported current cigarette smoking. Both higher area level social cohesion (OR = 0.85, 95% CI = 0.74 to 0.98) and higher individual social cohesion (OR = 0.96, 95% CI = 0.92 to 0.99) were associated with lower likelihoods of smoking. Similar models were obtained for neighbourhood safety and home safety. **CONCLUSIONS:** These findings contribute to the growing literature on the important role of social cohesion and other area level characteristics on smoking behaviour among adults.

18. Source: Am J Public Health. 2004 Sep;94(9):1574-9.

Title: **Urban sprawl and risk for being overweight or obese.**

Author: **Lopez R.**

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OBJECTIVES: I examined the association between urban sprawl and the risk for being overweight or obese among US adults. METHODS: A measure of urban sprawl in metropolitan areas was derived from the 2000 US Census; individual-level data were obtained from the Behavioral Risk Factor Surveillance System. I used multilevel analysis to assess the association between urban sprawl and obesity. RESULTS: After I controlled for gender, age, race/ethnicity, income, and education, for each 1-point rise in the urban sprawl index (0-100 scale), the risk for being overweight increased by 0.2% and the risk for being obese increased by 0.5%. CONCLUSIONS: The current obesity epidemic has many causes, but there is an association between urban sprawl and obesity.

19. Source: Public Health. 2004 Oct;118(7):488-96.

Title: **Suburban sprawl and physical and mental health.**

Author: **Sturm R, Cohen DA.**

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OBJECTIVE: To study the association between objective measures of suburban sprawl and chronic medical conditions and mental health disorders in the USA. METHODS: Cross-sectional analysis of survey data merged with objective measures of suburban sprawl. Outcomes are self-reported medical conditions, mental health disorders and health-related quality of life. RESULTS: Sprawl significantly predicts chronic medical conditions and health-related quality of life, but not mental health disorders. An increase in sprawl from one standard deviation less to one standard deviation more than average implies 96 more chronic medical problems per 1000 residents, which is approximately similar to an aging of the population of 4 years. CONCLUSIONS: A robust association between sprawl and physical (but not mental) health suggests that suburban design may be an important new avenue for health promotion and disease prevention.

20. Source: Am J Prev Med. 2004 Aug;27(2):87-96.

Title: **Obesity relationships with community design, physical activity, and time spent in cars.**

Author: **Frank LD, Andresen MA, Schmid TL.**

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BACKGROUND: Obesity is a major health problem in the United States and around the world. To date, relationships between obesity and aspects of the built environment have not been evaluated empirically at the individual level. OBJECTIVE: To evaluate the relationship between the built environment around each participant's place of residence and self-reported travel patterns (walking and time in a car), body mass index (BMI), and obesity for specific gender and ethnicity classifications. METHODS: Body Mass Index, minutes spent in a car, kilometers walked, age, income, educational attainment, and gender were derived through a travel survey of 10,878 participants in the Atlanta, Georgia region. Objective measures of land use mix, net residential density, and street connectivity were developed within a 1-kilometer network distance of each participant's place of residence. A cross-sectional design was used to associate urban form measures with obesity, BMI, and transportation-related activity when adjusting for sociodemographic covariates. Discrete analyses were conducted across gender and ethnicity. The data were collected between 2000 and 2002 and analysis was conducted in 2004. RESULTS: Land-use mix had the strongest association with obesity (BMI ≥ 30 kg/m²), with each quartile increase being associated with a 12.2% reduction in the likelihood of obesity across gender and ethnicity. Each

additional hour spent in a car per day was associated with a 6% increase in the likelihood of obesity. Conversely, each additional kilometer walked per day was associated with a 4.8% reduction in the likelihood of obesity. As a continuous measure, BMI was significantly associated with urban form for white cohorts. Relationships among urban form, walk distance, and time in a car were stronger among white than black cohorts. **CONCLUSIONS:** Measures of the built environment and travel patterns are important predictors of obesity across gender and ethnicity, yet relationships among the built environment, travel patterns, and weight may vary across gender and ethnicity. Strategies to increase land-use mix and distance walked while reducing time in a car can be effective as health interventions.

21. Source: *Int J Epidemiol.* 2004 Aug;33(4):769-76. Epub 2004 May 27.

Title: Exposure over the life course to an urban environment and its relation with obesity, diabetes, and hypertension in rural and urban Cameroon.

Author: Sobngwi E, Mbanaya JC, Unwin NC, Porcher R, Kengne AP, Fezeu L, Minkoulou EM, Tournoux C, Gautier JF, Aspray TJ, Alberti K.

Affiliation: Cameroon Essential Non-communicable diseases Health Intervention Project, Department of Internal Medicine, University of Yaounde 1, Yaounde, Cameroon.

BACKGROUND: This study aimed to assess the association between lifetime exposure to urban environment (EU) and obesity, diabetes, and hypertension in an adult population of Sub-Saharan Africa.

METHODS: We studied 999 women and 727 men aged ≥ 25 years. They represent all the adults aged ≥ 25 years living in households randomly selected from a rural and an urban community of Cameroon with a 98% and 96% participation rate respectively. Height, weight, blood pressure, and fasting blood glucose were measured in all subjects. Current levels of physical activity (in metabolic equivalents [MET]) were evaluated through the Sub-Saharan African Activity Questionnaire.

Chronological data on lifetime migration were collected retrospectively and expressed as the total (EUt) or percentage (EU%) of lifetime exposure to urban environment. **RESULTS:** Lifetime EUt was associated with body mass index (BMI) ($r = 0.42$; $P < 0.0001$), fasting glycaemia ($r = 0.23$; $P < 0.0001$), and blood pressure ($r = 0.17$; $P < 0.0001$) but not with age. The subjects who recently settled in a city (≤ 2 years) had higher BMI ($+2.9$ kg/m²; $P < 0.001$), fasting glycaemia ($+0.8$ mmol/l; $P < 0.001$), systolic ($+23$ mmHg; $P < 0.001$) and diastolic ($+9$ mmHg; $P = 0.001$) blood pressure than rural dwellers with a history of 2 years EU. EU during the first 5 years of life was not, on its own, associated with glycaemia or BMI. However, both lifetime EUt and current residence were independently associated with obesity and diabetes. The association between lifetime EUt and hypertension was not independent of current residence and current level of physical activity. **CONCLUSIONS:** This study suggests that for the study of obesity and diabetes, in addition to current residence, both lifetime exposure to an urban environment and recent migration history should be investigated.

22. Source: *East Afr Med J.* 2004 Aug;81(8):408-14.

Title: Contribution of household environment factors to urban childhood mortality in Mozambique.

Author: Macassa G, Ghilagaber G, Bernhardt E, Burstrom B.

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OBJECTIVES: Household environment factors are known to be associated with child mortality in urban and rural areas of many developing countries. In Mozambique, no study to date has addressed this relationship. This study is aimed to assess the contribution of household environment factors to urban childhood mortality in Mozambique. **DESIGN:** Retrospective follow-up study. **SETTING:** Urban Mozambique. **SUBJECTS:** One thousand and forty eight children born in urban areas of Mozambique within five years of the 1997 Demographic and Health Survey. **METHODS:** Cox regression analysis was performed on a sample of 1048 children born in urban areas of Mozambique within five years of the 1997 Demographic and Health Survey. **RESULTS:** Children of mother's who lived in households with no toilet facility or with well as a source of drinking water had a high risk of dying compared to children who lived in households with flush toilet and piped water. **CONCLUSION:** Type of toilet facility and source of drinking

water play an important role in the risk of childhood mortality in urban areas of Mozambique and the relationship seems to be mediated partly by demographic and socioeconomic factors.

23. The built environment and health: 11 profiles of neighborhood transformation
Author: Prevention Institute

Available at: <http://www.preventioninstitute.org/builtenv.html>

Topic D. The relationship between urban living and health

24. Source: Health Care Women Int. 2004 Aug;25(7):604-19.

Title: **Less money less food: voices from women in urban poor families in Thailand.**

Author: **Piaseu N, Belza B, Shell-Duncan B.**

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Food insecurity is a public health problem. Information on how cultures perceive the experience of a financial crisis and resultant food insecurity is limited. Our purpose in this study was to understand how poor families residing in urban slums in Thailand perceive their food situation. Interviews were conducted with 30 women aged 20-65 years who were household food providers. Content analysis revealed three themes: experiencing changes, being vulnerable to not having enough food, and getting support. Policy changes to address access to social and health services and development of additional welfare programs must be made to achieve food security.

25. Source: Inj Prev. 2004 Oct;10(5):287-91.

Title: **Urban youths' perspectives on violence and the necessity of fighting.**

Author: **Johnson SB, Frattaroli S, Wright JL, Pearson-Fields CB, Cheng TL.**

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OBJECTIVES: To assess youth perceptions of the causes and consequences of violence generally, the causes and consequences of fighting specifically, and to determine how best to approach fighting in the context of violence prevention activities. **METHODS:** Thirteen structured focus group interviews with youths from three high violence urban settings: a large, urban high school, a training center for disadvantaged youths, and a school for adjudicated youths. Participants were 120 urban, predominately African-American youths and young adults ages 14-22 years (mean: 17.2 years). Seven focus groups were conducted with females, and six with males. **RESULTS:** Adolescents identified the causes of violence on multiple levels including: individual, family, interpersonal, and community level factors. Most youths (89%) had been in a physical fight. Participants felt that fighting was not "right", but identified situations in which it was necessary. Specifically, fighting was used as a problem solving tool, and could prevent escalation of violence. Youths felt that the adults in their lives, including physicians, were generally ill equipped to give advice about violence, as adults' experiences were so removed from their own. Participants looked to experienced role models to offer problem solving and harm reduction strategies. Youths were open to receiving anticipatory guidance about violence and fighting from primary care physicians they felt comfortable with, and who showed respect for their experiences. **CONCLUSIONS:** Interventions that include blanket admonitions against fighting should be reassessed in light of youth perceptions that fighting plays a complex role in both inciting and preventing more serious violence.

26. Source: Int J Geriatr Psychiatry. 2004 Sep;19(9):843-51.

Title: **Lifetime urban/rural residence, social support and late-life depression in Korea.**

Author: **Kim JM, Stewart R, Shin IS, Yoon JS, Lee HY.**

Affiliation: Department of Psychiatry, College of Medicine, Chosun University, Kwangju, Republic of Korea.

BACKGROUND: Population ageing and rural-urban migration are accelerating in many non-Western nations. This study aimed to investigate: (i) the association between lifetime urban/rural residence and late-life depression in Korea and (ii) modification of associations between depression and social support by lifetime residence. METHODS: 1204 urban/rural residents aged 65+ were interviewed and GMS-AGECAT diagnoses made. Previous areas of residence were recorded and social support deficits quantified. RESULTS: Depression was present in 9% and 21% of the rural and urban samples respectively. For the urban sample, depression was not associated with earlier urban/rural residence. Social support deficits were most strongly associated with depression in people with a lifetime rural residence, followed by urban residents with a rural birthplace. CONCLUSIONS: Prevalence rates of depression were increased in the urban sample regardless of previous urban/rural residence. Reduced social support was particularly strongly associated with depression in people with a rural upbringing.

27. Source: Am J Public Health. 2004 Oct;94(10):1768-74.

Title: **Local area deprivation and urban-rural differences in anxiety and depression among people older than 75 years in Britain.**

Author: **Walters K, Breeze E, Wilkinson P, Price GM, Bulpitt CJ, Fletcher A.**

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OBJECTIVES: We sought to determine the association of depression and anxiety with "area deprivation" (neighborhood socioeconomic deprivation) and population density among people older than 75 years in Britain. METHODS: Postal codes were used to link census area information to individual data on depression and anxiety in 13349 people aged 75 years and older taking part in a trial of health screening. RESULTS: Living in the most socioeconomically deprived areas was associated with depression (OR=1.4), but this relation disappeared after adjusting for individual deprivation characteristics. There was no association with anxiety. Living in the highest density and intermediate low-density areas was associated with depression (OR=1.6 and 1.5) and anxiety (OR=1.5 and 1.3) compared with the lowest density areas. CONCLUSIONS: An association between area deprivation and depression in older people was explained by individual health, demographic, and socioeconomic factors. Higher population density was consistently associated with increased depression and anxiety.

28. Source: Am J Epidemiol. 2004 Dec 1;160(11):1039-46.

Title: **Higher bone mineral density in rural compared with urban dwellers: the NOREPOS study.**

Author: **Meyer HE, Berntsen GK, Sogaard AJ, Langhammer A, Schei B, Fonnebo V, Forsmo S, Tell GS; Norwegian Epidemiological Osteoporosis Studies (NOREPOS) Research Group.**

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Norway has a very high incidence of osteoporotic fractures, with substantial regional differences in fracture incidence. The present study evaluated whether there are differences in bone mineral density (BMD) between regions in Norway with differences in fracture incidence. The authors used data collected in four large, population-based, multipurpose studies performed in four regions of Norway during 1994-2001. Distal forearm BMD was measured by single energy x-ray absorptiometry in 10,667 participants aged 40-75 years. Cross-calibration was performed by using the European Forearm Phantom. Mean distal forearm BMD was lower in the urban populations of Tromsø, Oslo, and Bergen compared with the

rural county of Nord-Trondelag, whereas there was no difference between the rural part of Tromso and Nord-Trondelag. For women, body mass index explained some of these differences. The prevalence of low BMD (z score ≤ -1) in Oslo, Bergen, and urban Tromso, compared with Nord-Trondelag, was 1.6-1.7 times higher in men and 1.5-2.0 times higher in women, whereas no significant difference was found between rural Tromso and Nord-Trondelag. In this study, higher BMD was found in rural compared with urban areas of Norway, which might help explain the differences in fracture incidence. There was no apparent north-south gradient in BMD.

Topic E. Other publications worth noting

29. Source: Reviews on Environmental Health, Vol. 15: Nos. 1–2, 2000
Special Issue: Urban Health

This special issue addresses the vast and complex subject of urban health. Urban health encompasses the direct pathological effects of chemicals, some biological agents, and radiation, as well as the influence of physical, psychological, and social dimensions of daily life (including housing, transport and numerous other environmental characteristics of urban areas and their hinterlands). Urbanization, a characteristic of the 20th century, is a profound transformation of human settlements. Living and working conditions in cities influence the health and well-being of citizens. Cities are localities of relatively high exposure to: Environmental hazards, including air pollution, noise, water contamination, and solid wastes; Physical hazards, especially industrial, occupational, and traffic accidents related to the increasing complexity of urban infrastructure, services, and technology; and Social hazards, such as infectious disease, unemployment, social unrest and criminality.

30. Source: Academic Medicine, Vol. 79, Issue 12, December 2004
Special Theme Issue: Urban Health