International Society for Urban Health
www.isuh.org

Urban Health Literature Review
February 2006

Topic A: Impact of social, physical and built environments
Topic B: The urban indoor and outdoor environment
Topic C: At-risk and special populations
Topic D: Miscellany of relevance to urban health

Topic A: Impact of social, physical and built environments

1. Soc Sci Med. 2006 Feb;62(3):769-78. Epub 2005 Jul 21.

Title: **Collective efficacy and obesity: The potential influence of social factors on health.**
Author: **Cohen DA, Finch BK, Bower A, Sastry N.**
Affiliation: RAND Corporation, 1776 Main Street, Santa Monica, CA 90407, USA.

Social determinants have been identified as a fundamental cause of health and disease in most industrialized countries. However, much less is known about which characteristics of communities may lead to disparities in health outcomes. Collective efficacy-the willingness of community members to look out for each other and intervene when trouble arises-is a social factor shown to be associated with outcomes related to obesity, including premature mortality and cardiovascular disease. The objective of this study is to determine whether neighborhood collective efficacy is associated with individual measures of body mass index (BMI) in adolescents. We use a multi-level, cross-sectional survey in Los Angeles County, involving 807 adolescents in 684 households in 65 neighborhoods in addition to a sample of 3000 adult respondents. The main outcomes measures are BMI, at risk of overweight, and overweight status. Using a two-level model, we find significant relationships between collective efficacy and all three outcomes, net of levels of neighborhood disadvantage. The associations between BMI and collective efficacy could potentially be explained by several factors, including a metabolic pathway, neighborhood differences in the physical and social environments, or a combination of these two. If group-level collective efficacy is indeed important in the regulation of individual-level net energy balance, it suggests that future interventions to control weight by addressing the social environment at the community level may be promising.

2. Am J Prev Med. 2005 Dec;29(5 Suppl 1):107-12.

Title: **Promoting cardiovascular health from individual goals to social environmental change.**
Author: **Barnett E, Anderson T, Blosnich J, Halverson J, Novak J.**
Affiliation: Departments of Epidemiology and Biostatistics, University of South Florida, Tampa, Florida.

A conceptual model of the relationship between well-known individual-level behavioral and biomedical risk factors for heart disease and stroke and community-level social environmental risk factors, which may be less familiar to professionals working in cardiovascular health promotion, is presented. The social environment paradigm holds that programs and interventions should focus "upstream" and attempt to directly modify social environmental conditions in order to positively influence human behaviors, and consequently disability and disease. For each of the "big five" cardiovascular risk factors (poor diet, physical inactivity, cigarette smoking, high blood pressure, and high blood cholesterol), social

environmental barriers and promoters are described. This conceptual model should be a useful tool in explaining and justifying the ways in which social environmental change can improve risk factor distributions for entire populations, and subsequently reduce disability and death from heart disease and stroke.

3. Soc Sci Med. 2005 Nov;61(9):2007-17.

Title: **Social capital in settings with a high concentration of road traffic injuries. The case of Cuernavaca, Mexico.**
Author: **Inclan C, Hijar M, Tovar V.**
Affiliation: Center for Health Systems Research, National Institute of Public Health, Mexico.

There exists a differential ability within local communities to maintain effective social controls to prevent road traffic injuries (RTIs) in high risks areas. In 2002 we conducted a cross-sectional study in Cuernavaca, Mexico which incorporated 339 adults living in three areas which were characterized by high RTI concentrations. Multivariate analyses demonstrated that even when participants perceived RTIs as a local problem, they expressed no expectations that community members would exert social control through their involvement in local issues and law adherence. The study revealed four key conclusions regarding the association between the low levels of social capital and RTIs: (a) public roads are used solely for transportation, are not viewed as a communal space, and consequently reciprocity is not viewed as a relevant way of controlling behaviors in public places; (b) "strong immediate personal networks" bring about a lack of reciprocity between those sharing the public space which generates uncooperative behavior; (c) high levels of residential instability hinders the identification of common problems; (d) when there exists a low level of civic commitment and a scarcity of social resources directed towards the problem, the possibilities of social control over RTIs are low.

4. Br J Psychiatry. 2005 Nov;187:401-6.

Title: **Social fragmentation, deprivation and urbanicity: relation to first-admission rates for psychoses.**
Autor: **Allardyce J, Gilmour H, Atkinson J, Rapson T, Bishop J, McCreadie RG.**
Affilation: Section of Psychological Medicine, University of Glasgow, UK. j.allardyce@clinmed.gla.ac.uk

BACKGROUND: Social disorganisation, fragmentation and isolation have long been posited as influencing the rate of psychoses at area level. Measuring such societal constructs is difficult. A census-based index measuring social fragmentation has been proposed. AIMS: To investigate the association between first-admission rates for psychosis and area-based measures of social fragmentation, deprivation and urban/rural index. METHOD: We used indirect standardisation methods and logistic regression models to examine associations of social fragmentation, deprivation and urban/rural categories with first admissions for psychoses in Scotland for the 5-year period 1989-1993. RESULTS: Areas characterised by high social fragmentation had higher first-ever admission rates for psychosis independent of deprivation and urban/rural status. There was a dose-response relationship between social fragmentation category and first-ever admission rates for psychosis. There was no statistically significant interaction between social fragmentation, deprivation and urban/rural index. CONCLUSIONS: First-admission rates are strongly associated with measures of social fragmentation, independent of material deprivation and urban/rural category.

5. J Epidemiol Community Health. 2005 Oct;59(10):893-7.

Title: **Thinking inside the bubble: evidence for a new contextual unit in urban mental health.**
Author: **Whitley R, Prince M, Cargo M.**
Affiliation: Division of Social and Trans-cultural Psychiatry, Department of Psychiatry, McGill University, 1033 Pine Avenue West, Montreal, Quebec, Canada H3A 1A1. robert.whitley@mail.mcgill.ca

OBJECTIVE: Previous quantitative research has suggested that there is a link between housing, the urban environment, and mental health. However, methodological and design issues make it difficult to disentangle the relative influence of dwelling specific and wider urban environmental influences on individual mental health. The aim of this study was to explore the link between the dwelling, the immediate urban environment, and mental health to generate a new conceptual framework by which understanding of dwelling and urban environmental influences on mental health can be advanced. DESIGN AND PARTICIPANTS: Qualitative interviews and focus groups were conducted with 32 inner city residents. Participants, stratified by sex and mental health status, were randomly recruited from a wider quantitative survey. An almost equal number of men and women as well as people with or without mental health problems participated, allowing for comparison of experience. Data were analysed inductively to generate an appropriate theoretical framework regarding dwelling and urban environmental influences on mental health. SETTING: An inner city neighbourhood of about 6200 people in north west London. Most of that population live in public housing. MAIN RESULTS: The principal study finding is that between the dwelling unit and the neighbourhood unit, evidence was found for another meaningful contextual unit of analysis, the "residential bubble" through which effects on mental health can be mediated. The residential bubble describes a limited area of three dimensional space that surrounds a dwelling, encompassing immediate neighbours (above, below, and adjacent) and shared public space bordering the dwelling. Positive events and processes within the bubble had a beneficial influence on mental health whereas negative ones tended to have a damaging influence. These seemed to disproportionately have an impact on people with pre-existing mental health problems. CONCLUSION: The concept of the "residential bubble" may be a meaningful new contextual unit of analysis in urban mental health. This may have important implications with regards to interventions and measurement development.

6. J Epidemiol Community Health. 2005 Oct;59(10):822-7.

Title: **Urban built environment and depression: a multilevel analysis.**
Author: **Galea S, Ahern J, Rudenstine S, Wallace Z, Vlahov D.**
Affiliation: Center for Urban Epidemiologic Studies, New York Academy of Medicine, New York, NY, USA. sgalea@umich.edu

STUDY OBJECTIVE: To assess the relations between characteristics of the neighbourhood internal and external built environment and past six month and lifetime depression. DESIGN AND SETTING: Depression and sociodemographic information were assessed in a cross sectional survey of residents of New York City (NYC). All respondents were geocoded to neighbourhood of residence. Data on the quality of the built environment in 59 NYC neighbourhoods were collected from the United Status census, the New York City housing and vacancy survey, and the fiscal 2002 New York City mayor's management report. MAIN RESULTS: Among 1355 respondents, residence in neighbourhoods characterised by a poor quality built environment was associated with greater individual likelihood of past six month and lifetime depression in multilevel models adjusting for individual age, race/ethnicity, sex, and income and for neighbourhood level income. In adjusted models, persons living in neighbourhoods characterised by poorer features of the built environment were 29%-58% more likely to report past six month depression and 36%-64% more likely to report lifetime depression than respondents living in neighbourhoods characterised by better features of the built environment. CONCLUSIONS: Living in neighbourhoods characterised by a poor quality built environment is associated with a greater likelihood of depression. Future prospective work designed to assess potential mechanisms underlying these associations may guide public health and urban planning efforts aimed at improving population mental health.

7. Am J Public Health. 2005 Nov;95(11):1933-9. Epub 2005 Sep 29.

Title: **The role of the built environment in the disablement process.**
Author: **Clarke P, George LK.**
Affiliation: Center for the Study of Aging and Human Development, Duke University. pjclarke@umich.edu

The Disablement Process model explicates the transition from health conditions to disability and specifically emphasizes the role of intervening factors that speed up or slow down the pathway between pathology and disability. We used hierarchical Poisson regression analyses with data on older adults from central North Carolina to examine the role of the built environment as a modifying factor in the pathway between lower extremity functional limitations and activities of daily living. We found that, despite declining physical function, older adults report greater independence in instrumental activities when they live in environments with more land-use diversity.Independence in self-care activities is modified by housing density, in part through the effect of substandard and inadequate housing.

8. J Epidemiol Community Health. 2005 Jul;59(7):568-73.

Title: **Effects of neighbourhood socioeconomic status and convenience store concentration on individual level smoking.**
Author: **Chuang YC, Cubbin C, Ahn D, Winkleby MA.**
Affiliation: Graduate Institute of Public Health, Taipei Medical University, 250 Wu-Hsing Street, Taipei, Taiwan. yingchih@tmu.edu.tw

OBJECTIVES: To assess the effects of neighbourhood level socioeconomic status (SES) and convenience store concentration on individual level smoking, after consideration of individual level characteristics. DESIGN: Individual sociodemographic characteristics and smoking were obtained from five cross sectional surveys (1979-1990). Participants' addresses were geocoded and linked with census data for measuring neighbourhood SES and with telephone yellow page listings for measuring convenience store concentration (density in a neighbourhood, distance between a participant's home and the nearest convenience store, and number of convenience stores within a one mile radius of a participant's home). The data were analysed with multilevel Poisson regression models. SETTING: 82 neighbourhoods in four northern California cities. PARTICIPANTS: 8121 women and men aged 25-74 from the Stanford heart disease prevention programme. MAIN RESULTS: Lower neighbourhood SES and higher convenience store concentration, measured by density and distance, were both significantly associated with higher level of individual smoking after taking individual characteristics into account. The association between convenience store density and individual smoking was modified by individual SES and neighbourhood SES. CONCLUSIONS: These findings are consistent with a growing body of literature suggesting that the socioeconomic and physical environments of neighbourhoods are associated with individual level smoking.

9. Health Soc Care Community. 2006 Jan;14(1):37-48.

Title: **Mapping the social demography and location of HIV services across Toronto neighbourhoods.**
Author: **Kaukinen C, Fulcher C.**
Affiliation: Department of Criminology and Criminal Justice, Currell College, University of South Carolina, Columbia, SC 29208, USA. kaukinen@gwm.sc.edu

In this paper we map the location and distribution of HIV service providers across Toronto neighbourhoods. Our analysis identified an uneven distribution of services across Toronto and a number of communities that are less accessible to HIV-related services. We subsequently identified three neighbourhood-level characteristics of the populations living within these communities (i.e. concentrated economic disadvantage, concentrated immigration, and residential instability). Our findings suggest a significant overlap in the location of HIV service providers and the clustering of neighbourhood-level

demographic and socioeconomic factors. Some inaccessible neighbourhoods overlap with clusters of neighbourhoods with higher levels of concentrated disadvantage, immigration and percentage of black Canadians. Accessible neighbourhoods are located within the downtown core of Toronto and overlap with clusters of highly dense, younger neighbourhoods (with a high proportion of 15- to 34-year-olds who are unmarried). Our findings point to the need for policy-makers to integrate spatial analytic techniques into their examination of the types of neighbourhoods, and subsequently the community members that live within those neighbourhoods, that are potentially underserved with respect to health and social services.

10. BMC Public Health. 2005 Nov 25;5:123.

Title: **An economic way of reducing health, environmental, and other pressures of urban traffic: a decision analysis on trip aggregation.**
Author: **Tuomisto JT, Tainio M.**
Affiliation: Centre for Environmental Health Risk Analysis, National Public Health Institute (KTL), PO Box 95, FI-70701, Finland. jouni.tuomisto@ktl.fi

BACKGROUND: Traffic congestion is rapidly becoming the most important obstacle to urban development. In addition, traffic creates major health, environmental, and economical problems. Nonetheless, automobiles are crucial for the functions of the modern society. Most proposals for sustainable traffic solutions face major political opposition, economical consequences, or technical problems. METHODS: We performed a decision analysis in a poorly studied area, trip aggregation, and studied decisions from the perspective of two different stakeholders, the passenger and society. We modelled the impact and potential of composite traffic, a hypothetical large-scale demand-responsive public transport system for the Helsinki metropolitan area, where a centralised system would collect the information on all trip demands online, would merge the trips with the same origin and destination into public vehicles with eight or four seats, and then would transmit the trip instructions to the passengers' mobile phones. RESULTS: We show here that in an urban area with one million inhabitants, trip aggregation could reduce the health, environmental, and other detrimental impacts of car traffic typically by 50-70%, and if implemented could attract about half of the car passengers, and within a broad operational range would require no public subsidies. CONCLUSION: Composite traffic provides new degrees of freedom in urban decision-making in identifying novel solutions to the problems of urban traffic.

11. Am J Public Health. 2005 Dec;95(12):2198-205.

Title: **Distribution of education and population health: an ecological analysis of New York City neighborhoods.**
Author: **Galea S, Ahern J.**
Affiliation: Center for Urban Epidemiologic Studies, New York Academy of Medicine, New York, NY, USA. sgalea@mich.edu

OBJECTIVES: We assessed the relationship between distribution of education and health indicators in a large urban area to determine if distribution of education may be a determinant of population health. METHODS: We studied the association between distribution of education, measured with the education Gini coefficient, and rates of 8 health indicators in 59 neighborhoods in New York City. RESULTS: In separate adjusted ecological models, neighborhoods with more poorly distributed education had better population health indicators that might plausibly be associated with short-term changes in the social environment (e.g., homicide and infant mortality rate); there was no association between education distribution and health indicators more likely to be associated with long-term accumulation of social and behavioral stressors (e.g., cardiovascular disease and chronic lung disease mortality rates). These findings were robust to measures of income and to adjustment for several potential confounders (e.g., gender and race/ethnicity). CONCLUSIONS: The presence in a neighborhood of highly educated people may be salutary for all residents, independent of the potentially deleterious consequences of income maldistribution.

12. J Gerontol B Psychol Sci Soc Sci. 2005 Jul;60(4):S181-90.

Title: **Racial disparities in self-rated health at older ages: what difference does the neighborhood make?**

Author: **Cagney KA, Browning CR, Wen M.**
Affiliation: Department of Health Studies, University of Chicago, 5841 S. Maryland Ave., MC 2007, Chicago, IL 60637, USA. kcagney@health.bsd.uchicago.edu

OBJECTIVES: Racial differences in self-rated health at older ages are well documented. African Americans consistently report poorer health, even when education, income, and other health status indicators are controlled. The extent to which neighborhood-level characteristics mediate this association remains largely unexplored. We ask whether neighborhood social and economic resources help to explain the self-reported health differential between African Americans and Whites. METHODS: Using the 1990 Decennial Census, the 1994-1995 Project on Human Development in Chicago Neighborhoods-Community Survey, and selected years of the 1991-2000 Metropolitan Chicago Information Center-Metro Survey, we examine the impact of neighborhood structure and social organization on self-rated health for a sample of Chicago residents aged 55 and older (N = 636). We use multilevel modeling techniques to examine both individual and neighborhood-level covariates. RESULTS: Findings indicate that affluence, a neighborhood structural resource, contributes positively to self-rated health and attenuates the association between race and self-rated health. When the level of affluence in a community is low, residential stability is negatively related to health. Collective efficacy, a measure of neighborhood social resources, is not associated with health for this older population. DISCUSSION: Analyses incorporating individual and neighborhood-level contextual indicators may further our understanding of the complex association between sociodemographic factors and health.

13. Arch Pediatr Adolesc Med. 2006 Jan;160(1):25-31.

Title: **Neighborhood safety and overweight status in children.**

Author: **Lumeng JC, Appugliese D, Cabral HJ, Bradley RH, Zuckerman B.**
Affiliation: Center for Human Growth and Development and Department of Pediatrics and Communicable Diseases, University of Michigan, 300 North Ingalls Building 10th Floor, Ann Arbor, MI 48109-0406, USA. jlumeng@umich.edu

OBJECTIVE: To determine if there is a relationship between parental perception of neighborhood safety and overweight at the age of 7 years. DESIGN: Cross-sectional analysis of the National Institute of Child Health and Human Development Study of Early Child Care and Youth Development. SETTING: Ten urban and rural US sites. PARTICIPANTS: A total of 768 children selected via conditional random sampling with complete data at follow-up. MAIN OUTCOME MEASURES: Parents reported demographics and perception of neighborhood safety by standardized questionnaire. Child overweight status was defined as a body mass index greater than or equal to the 95th percentile for age and sex from measured anthropometrics at the age of 7 years. The base model included relationship of the safety reporter to the child, sex, and baseline body mass index z score at the age of 4.5 years. Covariates tested included maternal marital status, education, and depressive symptoms; child race/ethnicity; participation in structured after-school activities; Home Observation for Measurement of the Environment total score; and neighborhood social cohesiveness. RESULTS: The sample was 85% white, and 10% of the children were overweight. Neighborhood safety ratings in the lowest quartile were independently associated with a higher risk of overweight at the age of 7 years compared with safety ratings in the highest quartile (adjusted odds ratio, 4.43; 95% confidence interval, 2.03-9.65). None of the candidate covariates altered the relationship between perception of neighborhood safety and child overweight status. CONCLUSIONS: Perception of the neighborhood as less safe was independently associated with an increased risk of overweight at the age of 7 years. Public health efforts may benefit from policies directed toward improving both actual and perceived neighborhood safety.

14. Epidemiology. 2006 Jan;17(1):14-23.

Title: **Neighborhood socioeconomic context, individual income and myocardial infarction.**
Author: **Stjarne MK, Fritzell J, De Leon AP, Hallqvist J; SHEEP Study Group.**
Affiliation: Centre for Health Equity Studies, CHESS, Stockholm University/Karolinska Institutet, Sweden. maria.k.starjne@chess.su.sewww.chess.su.se

BACKGROUND: The incidence of myocardial infarction (MI) varies among socioeconomic groups, and geographic differences in incidence rates are observed within most urban regions. Whether spatial social differentiation gives rise to social contexts detrimental to health is still an open question. In this study, we evaluate 2 aspects of the neighborhood context as contributory factors in MI: level of economic resources and degree of socioeconomic homogeneity. We adopt a multilevel approach to analyze potential mechanisms, which involve individual social characteristics. METHODS: We analyzed data from the SHEEP study, a population-based case-control study of first events of acute MI in Stockholm County in 1992-1994. Data on socioeconomic characteristics in neighborhoods came from total population registers of income and social circumstances. RESULTS: The level of neighborhood socioeconomic resources had a contextual effect on the relative risk of MI after adjustment for individual social characteristics. The incidence rate ratio (IRR) in low-income, compared with high-income, neighborhoods was 1.88 for women and 1.52 for men. Although the degree of socioeconomic homogeneity in neighborhoods has less impact on MI, the IRR for men in homogenous low-income areas compared with men living in heterogeneous high-income areas was 2.65. For men, the combined exposure to low-personal disposable income and low-income level in the neighborhood seemed to have an additive effect but for women, a synergistic (supra-additive) effect was found. CONCLUSION: The socioeconomic context of neighborhoods has an effect on cardiovascular outcomes.

15. J Gerontol A Biol Sci Med Sci. 2005 Oct;60(10):1345-50.

Title: **The future (history) of socioeconomic measurement and implications for improving health outcomes among African Americans.**
Author: **Andresen EM, Miller DK.**
Affiliation: Department of Community Health, Saint Louis University School of Public Health, Missouri, USA. eandresen@phhp.ufl.edu

Socioeconomic status (SES) has powerful and complex impacts on health, and understanding the relationship between SES and health is essential for long-term improvements in the health of populations. In addition, in the United States, the impact of SES on health is inextricably intertwined with racial and ethnicity status and the historical development and maintenance of health disparities. Most of the literature documenting this relationship has focused on individual-level socioeconomic factors. There are sound theoretical reasons and some empirical support to suggest that socioeconomic resources at both individual and neighborhood levels have strong influences on health outcomes such as disease, disability, and mortality. However, these relationships have been inadequately examined to date. In this article, the term "ecological SES" will be used to denote SES at geographic group levels. As the United States attempts to achieve the goals of the Department of Health and Human Services' Healthy People 2010 program, understanding ecological SES and its impacts on health will be crucial. We review the theory, some of the empirical evidence, and likely future for the measurement and use of a broader approach to SES and offer a specific research paradigm for examining these issues. We focus in particular on one racial-ethnic group that experiences health disparity, that is, African Americans. We use our ongoing project investigating physical frailty in urban African Americans to illustrate the importance of a multilevel approach to understanding the impacts of socioeconomic resources on health and the potential implications for efforts to prevent or reverse frailty.

Topic B: The urban indoor and outdoor environment

16. Environ Res. 2005 Jul;98(3):390-9. Epub 2004 Dec 8.

Title: **Epidemiologic study of mortality during the Summer 2003 heat wave in Italy.**
Author: **Conti S, Meli P, Minelli G, Solimini R, Toccaceli V, Vichi M, Beltrano C, Perini L.**
Affiliation: Bureau of Statistics, National Centre of Epidemiology, Surveillance and Promotion of Health, Italian National Institute of Health (Istituto Superiore di Sanita), Viale Regina Elena 299, 00161 Rome, Italy. susanna@iss.it

INTRODUCTION: It is widely recognized that extreme climatic conditions during summer months may constitute a major public health threat. Owing to what is called the "urban heat island effect," as well as to the consequences of heat waves on health, individuals living in cities have an elevated risk of death when temperature and humidity are high compared to those living in suburban and rural areas. Studies on heat wave-related mortality have further demonstrated that the greatest increases in mortality occur in the elderly. Following the unusually hot summer of 2003 and the dramatic news from neighboring countries such as France, the Italian Minister of Health requested the Istituto Superiore di Sanita-Bureau of Statistics to undertake an epidemiologic study of mortality in Italy during Summer 2003 to investigate whether there had been an excess of deaths, with a particular focus on the elderly population. MATERIALS AND METHODS: Communal offices, which maintain vital statistics, were asked for the individual records of death of residents registered daily during the period 1 June-31 August 2003 and during the same period of 2002 for each of the 21 capitals of the Italian regions. As it was necessary to obtain mortality data quickly from many municipalities and to make the analysis as soon as possible, the method adopted was comparison of mortality counts during the heat wave with figures observed during the same period of the previous year. RESULTS: Compared with 2002, between 1 June and 31 August 2003, there was an overall increase in mortality of 3134 (from 20,564 to 23,698). The greatest increase was among the elderly; 2876 deaths (92%) occurred among people aged 75 years and older, a more than one-fifth increase (21.3%, from 13.517 to 16.393%). The highest increases were observed in the northwestern cities, which are generally characterized by cold weather, and in individuals 75 years and older: Turin (44.9%), Trento (35.2%), Milan (30.6%), and Genoa (22.2%). Of note are also the increases observed in two southern cities, L'Aquila (24.7%) and Potenza (25.4%), which are located, respectively, at 700 and 800 m above see level. For Bari and Campobasso, both in the South, with a typically hot summer climate, the increase during the last 15 days of August was 186.2 and 450%, respectively. CONCLUSIONS: The relationship between mortality and discomfort due to climatic conditions as well as the short lag time give a clear public health message: preventive, social, and health care actions must be administered to the elderly and the frail to avoid excess deaths during heat waves.

17. Environ Res. 2005 Sep 19; [Epub ahead of print]

Title: **The avoidable health effects of air pollution in three Latin American cities: Santiago, Sao Paulo, and Mexico City.**
Author: **Bell ML, Davis DL, Gouveia N, Borja-Aburto VH, Cifuentes LA.**
Affiliation: Yale University, New Haven, CT 06511, USA.

Urban centers in Latin American often face high levels of air pollution as a result of economic and industrial growth. Decisions with regard to industry, transportation, and development will affect air pollution and health both in the short term and in the far future through climate change. We investigated the pollution health consequences of modest changes in fossil fuel use for three case study cities in Latin American: Mexico City, Mexico; Santiago, Chile; and Sao Paulo, Brazil. Annual levels of ozone and particulate matter were estimated from 2000 to 2020 for two emissions scenarios: (1) business-as-usual based on current emissions patterns and regulatory trends and (2) a control policy aimed at lowering air pollution emissions. The resulting air pollution levels were linked to health endpoints through concentration-response functions derived from epidemiological studies, using local studies where available. Results indicate that the air pollution control policy would have vast health benefits for each of the three cities, averting numerous adverse health outcomes including over 156,000 deaths, 4 million

asthma attacks, 300,000 children's medical visits, and almost 48,000 cases of chronic bronchitis in the three cities over the 20-year period. The economic value of the avoided health impacts is roughly $21 to $165 billion (US). Sensitivity analysis shows that the control policy yields significant health and economic benefits even with relaxed assumptions with regard to population growth, pollutant concentrations for the control policy, concentration-response functions, and economic value of health outcomes. This research demonstrates the health and economic burden from air pollution in Latin American urban centers and the magnitude of health benefits from control policies.

18. J Environ Health. 2005 Nov;68(4):32-6.

Title: **Environmental and health impacts of household solid waste handling and disposal practices in third world cities: the case of the Accra Metropolitan Area, Ghana.**
Author: **Boadi KO, Kuitunen M.**
Affiliation: kwaboad@yahoo.com

Inadequate provision of solid waste management facilities in Third World cities results in indiscriminate disposal and unsanitary environments, which threatens the health of urban residents. The study reported here examined household-level waste management and disposal practices in the Accra Metropolitan Area, Ghana. The residents of Accra currently generate large amounts of solid waste, beyond the management capabilities of the existing waste management system. Because the solid waste infrastructure is inadequate, over 80 percent of the population do not have home collection services. Only 13.5 percent of respondents are served with door-to-door collection of solid waste, while the rest dispose of their waste at communal collection points, in open spaces, and in waterways. The majority of households store their waste in open containers and plastic bags in the home. Waste storage in the home is associated with the presence of houseflies in the kitchen ($r = .17$, $p < .0001$). The presence of houseflies in the kitchen during cooking is correlated with the incidence of childhood diarrhea ($r = .36$, $p < .0001$). Inadequate solid waste facilities result in indiscriminate burning and burying of solid waste. There is an association between waste burning and the incidence of respiratory health symptoms among adults ($r = .25$, $p < .0001$) and children ($r = .22$, $p < .05$). Poor handling and disposal of waste are major causes of environmental pollution, which creates breeding grounds for pathogenic organisms, and the spread of infectious diseases. Improving access to solid waste collection facilities and services will help achieve sound environmental health in Accra.

19. J Allergy Clin Immunol. 2005 Nov;116(5):1058-63. Epub 2005 Oct 3.

Title: **Cost-effectiveness of a home-based environmental intervention for inner-city children with asthma.**
Author: **Kattan M, Stearns SC, Crain EF, Stout JW, Gergen PJ, Evans R 3rd, Visness CM, Gruchalla RS, Morgan WJ, O'Connor GT, Mastin JP, Mitchell HE.**
Affiliation: Department of Pediatrics, Mount Sinai School of Medicine, New York, NY, USA. meyer.kattan@mssn.edu

BACKGROUND: Exposure to indoor allergens contributes to increased asthma morbidity. The Inner-City Asthma Study, a randomized trial involving home environmental allergen and irritant remediation among children aged 6 through 11 years with moderate-to-severe asthma, successfully reduced asthma symptoms. A cost-effectiveness analysis can help stakeholders to evaluate the potential costs and benefits of adopting such a program. OBJECTIVE: We sought to assess the cost-effectiveness of the environmental intervention of the Inner-City Asthma Study. METHODS: Incremental cost-effectiveness ratios for a 2-year study period were calculated. Health outcome was measured as symptom-free days. Resource use measures included ambulatory visits, hospitalizations, and pharmaceutical use. CIs were obtained by using bootstrapping. RESULTS: The intervention, which cost $1469 per family, led to statistically significant reductions in symptom days, unscheduled clinic visits, and use of beta-agonist inhalers. Over the year of the intervention and a year of follow-up, the intervention cost was $27.57 per additional symptom-free day (95% CI, $7.46-$67.42). Subgroup analysis showed that targeting the

intervention to selected high-risk subgroups did not reduce the incremental cost-effectiveness ratio. CONCLUSIONS: A targeted home-based environmental intervention improved health and reduced service use in inner-city children with moderate-to-severe asthma. The intervention is cost-effective when the aim is to reduce asthma symptom days and the associated costs.

20. Ann Allergy Asthma Immunol. 2005 Dec;95(6):518-24.

Title: **Home environmental intervention in inner-city asthma: a randomized controlled clinical trial.**
Author: **Eggleston PA, Butz A, Rand C, Curtin-Brosnan J, Kanchanaraksa S, Swartz L, Breysse P, Buckley T, Diette G, Merriman B, Krishnan JA.**
Affiliation: Department of Pediatrics Johns Hopkins University School of Medicine, Baltimore, Maryland 21287, USA. pegglest@jhmi.edu

BACKGROUND: Airborne pollutants and indoor allergens increase asthma morbidity in inner-city children; therefore, reducing exposure, if feasible, should improve asthma morbidity. OBJECTIVE: To conduct a randomized controlled trial of methods to reduce environmental pollutant and allergen exposure in the homes of asthmatic children living in the inner city. METHODS: After the completion of questionnaires, spirometry and allergen skin tests, home inspection, and measurement of home air pollutant and allergen levels, 100 asthmatic children aged 6 to 12 years were randomized to the treatment group (home-based education, cockroach and rodent extermination, mattress and pillow encasings, and high-efficiency particulate air cleaner) or to the control group (treated at the end of the 1-year trial). Outcomes were evaluated by home evaluations at 6 and 12 months, clinic evaluation at 12 months, and multiple telephone interviews. RESULTS: In the treatment group, 84% received cockroach dxtermination and 75% used the air cleaner. Levels of particulate matter 10 microm or smaller declined by up to 39% in the treatment group but increased in the control group ($P < .001$). Cockroach allergen levels decreased by 51% in the treatment group. Daytime symptoms increased in the control group and decreased in the treatment group ($P = .04$). Other measures of morbidity, such as spirometry findings, nighttime symptoms, and emergency epartment use, were not significantly changed. CONCLUSIONS: A tailored, multifaceted environmental treatment reduced airborne particulate matter and indoor allergen levels in inner-city homes, which, in turn, had a modest effect on morbidity.

21. J Environ Health. 2005 Dec;68(5):15-20, 26.

Title: **Lessons from a primary-prevention program for lead poisoning among inner-city children.**
Author: **Dugbatey K, Croskey V, Evans RG, Narayan G, Osamudiamen OE.**
Affiliation: Saint Louis University School of Public Health, Salus Center, MO 63104, USA. Dugbatey@slu.edu

This study evaluated the impact on childhood lead poisoning of a primary-prevention educational-intervention program for pregnant women in St. Louis, Missouri. The women were predominantly poor and of African-American, Hispanic, Asian, and Caucasian backgrounds. The interventions, tailored for each woman on the basis of responses to a survey and environmental measurements, included case management with hands-on instruction on cleaning techniques, property maintenance, hygiene, and nutrition to reduce exposure of newborns to lead. It was hypothesized that the probability of lead poisoning (blood lead levels greater than 10 microg/dL) would be reduced among mothers who received the interventions compared with those who received only printed educational material. Contrary to expectations, none of the interventions reduced the likelihood of lead poisoning among participating children. In the process of the study, however, a number of valuable lessons related to recruitment and commitment of participants emerged that can inform future efforts of this nature.

22. Indoor Air. 2005 Aug;15(4):228-34.

Title: **Mouse and cockroach allergens in the dust and air in northeastern United States inner-city public high schools.**
Author: **Chew GL, Correa JC, Perzanowski MS**.
Affiliation: Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY 10032, USA. cg288@columbia.edu

Considering that high school students spend a large proportion of their waking hours in the school environment, this could be an important location for exposure to indoor allergens. We have investigated the levels of mouse and cockroach allergens in the settled dust and air from 11 schools in a major northeastern US city. Settled dust samples were vacuumed from 87 classrooms, three times throughout the school year. Two separate air samples (flow = 2.5 lpm) were collected by 53 students over a 5-day period from both their school and their home. Mouse allergen (MUP) in the dust varied greatly between schools with geometric means ranging from 0.21 to 133 microg/g. Mouse allergen was detectable in 81% of the samples collected. Cockroach allergen (Bla g 2) ranged from below limit of detection (<0.003 microg/g) to 1.1 microg/g. Cockroach allergen was detected (>0.003 microg/g) in 71% of the dust samples. Bla g 2 was detected in 22% of airborne samples from the schools. By comparison, mouse allergen was only detected in 5%. These results indicate that the school may be an important location for exposure to allergens from mice and cockroaches and is an indoor environment that should be considered in an overall allergen intervention strategy. PRACTICAL IMPLICATIONS: To date, cockroach and mouse allergen intervention strategies have been mainly focused on the home environment. Considering that children spend a significant amount of time in schools, some studies have assessed cockroach allergen levels in schools. This study provides a clearer picture of the distribution and variability of not only cockroach allergen, but also mouse allergen in the school environment. In addition, this study describes limitations of personal air sampling in a student population. Our results suggest that although cockroach and mouse allergens are commonly recovered in classroom dust samples of inner city schools, cockroach allergens are recovered in the personal air samples with a greater frequency relative to mouse allergens.

Topic C: At-risk and special populations

23. J Health Care Poor Underserved. 2005 Nov;16(4 Suppl B):140-56.

Title: **Black-white disparities in HIV/AIDS: the role of drug policy and the corrections system.**
Author: **Blankenship KM, Smoyer AB, Bray SJ, Mattocks K.**
Affiliation: Center for Interdisciplinary Research on AIDS, Yale University, Connecticut, USA.

African Americans in the United States are disproportionately affected by HIV/AIDS. We focus in this paper on the structural and contextual sources of HIV/AIDS risk, and suggest that among the most important of these sources are drug policy and the corrections system. In particular, high rates of exposure to the corrections system (including incarceration, probation, and parole) spurred in large part by federal and state governments' self-styled war on drugs in the United States, have disproportionately affected African Americans. We review a wide range of research literature to suggest how exposure to the corrections system may affect the HIV/AIDS related risks of drug users in general, and the disproportionate HIV risk faced by African Americans in particular. We then discuss the implications of the information reviewed for structural interventions to address African American HIV-related risk. Future research must further our understanding of the relations among drug policy, corrections, and race-based disparities in HIV/AIDS.

24. Diabetes Educ. 2005 Nov-Dec;31(6):880-9.

Title: **Translational research principles of an effectiveness trial for diabetes care in an urban African American population.**
Author: **Gary TL, Hill-Briggs F, Batts-Turner M, Brancati FL.**
Affiliation: Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland 21205, USA. tgary@jhsph.edu

PURPOSE: Large-scale effectiveness trials designed to translate evidence-based diabetes care to community settings are few. Studies describing these methods among high-risk minority populations are particularly limited. METHODS: The authors describe Project Sugar, a randomized controlled trial conducted in 2 phases: Project Sugar 1 (1994-1999), which piloted a 4-arm clinic and home-based intervention using nurse case management and community health workers in 186 urban African Americans with type 2 diabetes, and Project Sugar 2 (2000-2005), which examined effectiveness of this intervention among 542 diabetic, urban African Americans. Results and Conclusions Project Sugar had success with regard to recruitment and retention, both in phase 1 (80% rate at 24 months) and phase 2 (>90% at 24 months). Using the RE-AIM framework, planning and research design for Project Sugar 2 is described in detail for elements that contributed to the reach, effectiveness, adoption, implementation, and maintenance of this study within a minority community setting. In addition to successful strategies, challenges to conducting effectiveness trials in an inner-city African American community are identified.

25. BMC Public Health. 2006 Jan 17;6:8.

Title: **Study protocol--diabetes and related conditions in urban indigenous people in the Darwin, Australia region: aims, methods and participation in the DRUID Study.**
Author: **Cunningham J, O'Dea K, Dunbar T, Weeramanthri T, Zimmet P, Shaw J.**
Affiliation: Menzies School of Health Research and Institute of Advances Studies, Charles Darwin University, PO Box 41096, Casuarina, NT 0811, Australia. joan.cunningham@menzies.edu.au

BACKGROUND: Diabetes mellitus is a serious and increasing health problem in Australia and is a designated national health priority. Diabetes and related conditions represent an even greater health burden among Indigenous Australians (Aborigines and Torres Strait Islanders), but there are critical gaps in knowledge relating to the incidence and prevalence, aetiology, and prevention of diabetes in this group, including a lack of information on the burden of disease among Indigenous people in urban areas. The DRUID Study (Diabetes and Related conditions in Urban Indigenous people in the Darwin region) was designed to address this knowledge gap. METHODS/DESIGN: The study was conducted in a specified geographic area in and around Darwin, Australia. Eligible participants underwent a health examination, including collection of blood and urine samples, clinical and anthropometric measurements, and administration of questionnaires, with an additional assessment for people with diabetes. The study was designed to incorporate local Indigenous leadership, facilitate community engagement, and provide employment and training opportunities for local Indigenous people. A variety of recruitment methods were used. A total of 1,004 eligible people gave consent and provided at least one measurement. When compared with census data for the Indigenous population living in the study area, there was a marked under-representation of males, but no substantial differences in age, place of residence, Indigenous group, or household income. Early participants were more likely than later participants to have previously diagnosed diabetes. DISCUSSION: Despite lower than anticipated recruitment, this is, to our knowledge, the largest study ever conducted on the health of Indigenous Australians living in urban areas, a group which comprises the majority of Australia's Indigenous population but about whose health and wellbeing relatively little is known. The study is well-placed to provide new information that can be used by policy makers and service providers to improve the delivery of services and programs that affect the health of Indigenous people. It also represents a valuable opportunity to establish an urban Indigenous cohort study, provided participants can be followed successfully over time.

26. AIDS Care. 2005 Nov;17(8):1030-43.

Title: **HIV/AIDS and African immigrant women in Philadelphia: structural and cultural barriers to care.**
Author: **Foley EE.**
Affiliation: Health and Societies Program, University of Pennsylvania, PA 19104, USA. efoley@sas.upenn.edu

Although African immigration to American cities is increasing, there is little published demographic or epidemiological data on this population. As growing numbers of HIV-positive Africans seek care at public health centres in the city of Philadelphia, medical personnel are confronted with the challenges of serving this population. This qualitative study explores the perspectives of HIV service providers who are treating this new patient group, and it examines the cultural and structural barriers African women face in the area of HIV prevention, testing, and treatment in the city of Philadelphia. These barriers include legal status, linguistic problems, fear of the American health system, misunderstandings about modes of transmission of HIV, and lack of awareness about antiretroviral treatment. Culturally appropriate education about HIV prevention and treatment needs to be developed for African immigrants, and medical personnel need to understand the experiences, fears, and concerns of this population.

27. Ethn Dis. 2005 Autumn;15(4 Suppl 5):S5-3-9.

Title: **A profile of chronic mental and physical conditions among African-American and Latino children in urban public housing.**
Author: **Bazargan M, Calderon JL, Heslin KC, Mentes C, Shaheen MA, Ahdout J, Baker RS.**
Affiliation: Research Centers in Minority Institutions, Charles R Drew University of Medicine and Science, Los Angeles, CA 90059, USA. mobazarg@cdrewu.edu

OBJECTIVE: This study provides a profile of chronic mental and physical conditions among African-American and Latino children in urban public housing communities in Los Angeles, California. METHODS: The study focused on 187 African-American and Latino households with children, 65% of a random sample of 287 households in three urban public housing communities. RESULTS: The findings suggest that minority children residing in public housing are one of the more severely health-compromised groups among under-served communities. Children of Latino and African-American families in our sample are two to four times more likely to suffer from chronic physical and mental conditions than the general population. The top five childhood chronic conditions reported by parents for one or more children in their households were asthma (32%), eye/vision problems (24%), dental problems (16%), Attention Deficit Hyperactivity Disorder (17%), and depression (8%). CONCLUSION: This study documents significant health disparities in this population and strongly suggests the need for future investigations in similar settings nationwide.

28. J Urban Health. 2005 Dec;82(4):622-37. Epub 2005 Sep 29.

Title: **Cessation of injecting drug use among street-based youth.**
Author: **Steensma C, Boivin JF, Blais L, Roy E.**
Affiliation: Montreal Regional Public Health Department, 1301 Sherbrooke Street East, Montreal, Quebec, Canada.

Young injecting drug users (IDUs) are at high risk for a number of negative health outcomes such as hepatitis B, hepatitis C, and human immunodeficiency virus (HIV) infection. However, very little is known about injecting drug-use patterns among this population, particularly with respect to cessation of injection. We sought to identify the factors associated with cessation of injection in a population of young street-based IDUs. A prospective cohort study design was used to assess long-term (> or = 1 year) cessation of

drug injection. Data was collected between January 1995 and September 2000 in Montreal, Quebec, Canada. Subjects were originally recruited from various street-based outreach programs in Montreal and, for this study, had to have reported injecting drugs within the prior 6 months at baseline or during follow-up and had to have completed at least two semiannual follow-up questionnaires. Cessation incidence rates stratified by duration of injection and adjusted hazard ratios (AdjHRs) were calculated. A Cox proportional hazards regression model was used to identify risk factors independently associated with cessation of drug injection. Of 502 young IDUs, 305 subjects met the inclusion criteria. Cessation of injection for approximately 1 year or more occurred in 119 (39%) of the young IDUs. The incidence of cessation was 32.6/100 person-years but consistently declined as duration of time spent injecting increased. Independent predictors of cessation of injection were currently injecting on a less than monthly or less than weekly basis (HR = 6.4; 95% confidence interval (CI): 3.0-13.6 and HR = 2.4; 95% CI = 1.1-5.3, respectively); currently injecting two or fewer different types of drug (HR = 2.1; 95% CI = 1.1-4.0); currently employed (HR = 1.7; 95% CI = 1.1-2.7); and having at least one parent born outside of Canada (HR = 1.4; 95% CI = 1.1-1.7). Independent predictors of not ceasing injection were currently attending a needle-exchange program (HR = 0.5; 95% CI = 0.3-0.8);and current homelessness (HR = 0.6; 95% CI = 0.4-1.0). The early sharp decline in cessation of drug injection followed by a consistent decrease in this rate suggest difficulties in breaking the habit later on in the drug injecting career. Intensity of drug use and factors which may help to stabilize the social environment of the young IDU may also influence the ability to stop injecting.

29. J Public Health Manag Pract. 2005 Nov-Dec;11(6):508-15.

Title: **Economic evaluation of an HIV prevention intervention for seropositive injection drug users.**
Author: **Tuli K, Sansom S, Purcell DW, Metsch LR, Latkin CA, Gourevitch MN, Gomez CA; INSPIRE Team.**
Affiliation: Division of HIV/AIDS Prevention, National Center for HIV, STD and TB Prevention, Centers for Disease Control and Prevention, Atlanta, Georgia, USA. ktuli@hotmail.com

OBJECTIVE: To assess the cost-effectiveness of Intervention for HIV-Seropositive injection drug users--Research and Evaluation (INSPIRE), designed to reduce risky sexual and needle-sharing behaviors in research sites in four US cities (2001-2003). METHODS: We collected data on program and participant costs. We used a mathematical model to estimate the number of sex partners of injection drug users expected to become infected with human immunodeficiency virus (HIV) (with and without intervention), cost of treatment for sex partners who became infected, and the effect of infection on partners' quality-adjusted life expectancy. We determined the minimum effect that INSPIRE must have on condom use among participants for the intervention to be cost-saving (intervention cost less than savings from averted HIV infections) or cost-effective (net cost per quality-adjusted life year saved less than $50,000). RESULTS: The intervention cost was $870 per participant. It would be cost-saving if it led to 53 percent reduction in the proportion of participants who had any unprotected sex in 1 year and cost-effective with 17 percent reduction. If behavior change lasted 3 months, the cost-effectiveness threshold was 66 percent; if 3 years, the threshold was 6 percent. CONCLUSIONS: Although cost-saving thresholds may not be achievable by the intervention, we anticipate that cost-effectiveness thresholds will be attained.

30. BMJ. 2006 Jan 28;332(7535):220-2.

Title: **Impact of a medically supervised safer injection facility on community drug use patterns: a before and after study.**
Author: **Kerr T, Stoltz JA, Tyndall M, Li K, Zhang R, Montaner J, Wood E.**
Affiliation: British Columbia Centre for Excellence in HIV/AIDS, St. Paul's Hospital, 608-1081 Burrard Street, Vancouver, BC V6Z 1Y6, Canada. tkerr@cfenet.ubc.ca

PROBLEM: Illicit use of injected drugs is linked with high rates of HIV infection and fatal overdose, as well as community concerns about public drug use. Supervised injecting facilities have been proposed as a potential solution, but fears have been raised that they might encourage drug use. DESIGN: A before and

after study. Participants and setting 871 injecting drug users recruited from the community in Vancouver, Canada. KEY MEASURES FOR IMPROVEMENT: Rates of relapse into injected drug use among former users and of stopping drug use among current users. STRATEGIES FOR CHANGE: Local health authorities established the Vancouver supervised injecting facility to provide injecting drug users with sterile injecting equipment, intervention in the event of overdose, primary health care, and referral to external health and social services. EFFECTS OF CHANGE: Analysis of periods before and after the facility's opening showed no substantial increase in the rate of relapse into injected drug use (17% v 20%) and no substantial decrease in the rate of stopping injected drug use (17% v 15%). LESSONS LEARNT: Recently reported benefits of supervised injecting facilities on drug users' high risk behaviours and on public order do not seem to have been offset by negative community impacts.

31. J Urban Health. 2005 Dec;82(4):610-21. Epub 2005 Oct 12.

Title: **Race/ethnic differences in HIV prevalence and risks among adolescent and young adult men who have sex with men.**
Author: **Celentano DD, Sifakis F, Hylton J, Torian LV, Guillin V, Koblin BA.**
Affiliation: Department of Epidemiology, Johns Hopkins University Bloomberg School of Public Health, 615 North Wolfe Street, USA. dcelenta@jhsph.edu

The prevalence of HIV infection is disproportionately higher in both racial/ethnic minority men who have sex with men (MSM) and in men under the age of 25, where the leading exposure category is homosexual contact. Less is known, however, about patterns of HIV prevalence in young racial/ethnic minority MSM. We analyzed data from the Young Men's Survey (YMS), an anonymous, cross-sectional survey of 351 MSM in Baltimore and 529 MSM in New York City, aged 15-22, to determine whether race/ethnicity differences exist in the prevalence of HIV infection and associated risk factors. Potential participants were selected systematically at MSM-identified public venues. Venues and associated time periods for subject selection were selected randomly on a monthly basis. Eligible and willing subjects provided informed consent and underwent an interview, HIV pretest counseling, and a blood draw for HIV antibody testing. In multivariate analysis, adjusted for city of recruitment and age, HIV seroprevalence was highest for African Americans [adjusted odds ratio (AOR) = 12.5], intermediate for those of "other/mixed" race/ethnicity (AOR = 8.6), and moderately elevated for Hispanics (AOR = 4.6) as compared to whites. Stratified analysis showed different risk factors for HIV prevalence in each ethnic group: for African Americans, these were history of sexually transmitted diseases (STDs) and not being in school; for Hispanics, risk factors were being aged 20-22, greater number of male partners and use of recreational drugs; and for those of "other/mixed" race/ethnicity, risk factors included injection drug use and (marginally) STDs. These findings suggest the need for HIV prevention and testing programs which target young racial/ethnic minority MSM and highlight identified risk factors and behaviors.

32. Sex Transm Dis. 2005 Oct;32(10 Suppl):S60-4.

Title: **Internet-based health promotion and disease control in the 8 cities: successes, barriers, and future plans.**
Author: **McFarlane M, Kachur R, Klausner JD, Roland E, Cohen M.**
Affiliation: Division of STD Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention, Atlanta, Georgia, USA. xzm3@cdc.gov

OBJECTIVES: The objective of this paper is to provide a detailed description of Internet-based sexually transmitted disease/human immunodeficiency virus prevention in the 8 US cities most affected by syphilis in men who have sex with men. GOAL: By reviewing the efforts under way in these 8 cities, we will understand the barriers and facilitators associated with Internet-based prevention efforts. STUDY: This is a review of Internet activities taking place in 8 major US cities. RESULTS: Efforts in the 8 cities vary, with some cities reporting little or no Internet-based prevention activities. Other cities have attempted banner advertising, online outreach, online partner notification, online laboratory slips for syphilis testing, and auditorium-style chat sessions. CONCLUSION: Though a number of policy-related barriers prevent some

cities from engaging in Internet-based prevention, these activities are clearly important to the overall prevention effort. In order to surmount local policy barriers, it is essential to obtain evaluation data from the programs initiated.

33. Sex Transm Dis. 2005 Oct;32(10 Suppl):S24-9.

Title: **Activities to increase provider awareness of early syphilis in men who have sex with men in 8 cities, 2000-2004.**
Author: **Taylor M, Prescott L, Brown J, Wong W, Allen M, Broussard D, Jordahl L, Kerndt P.**
Affiliation: Division of STD Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention, Atlanta, Georgia, USA. taylorm@azdhs.gov

OBJECTIVE: Describe provider awareness campaigns undertaken in response to syphilis epidemics among men who have sex with men (MSM). METHODS: Descriptive data from 8 cities facing MSM syphilis epidemics was compiled. RESULTS: Provider awareness efforts included medical alerts, provider visits, lectures to providers on symptom recognition and treatment, and ongoing provision of syphilis and other sexually transmitted diseases (STD) morbidity information through mailings, visits, and e-mail communications. Increases in private provider reporting of syphilis cases followed provider visits in Atlanta and overall provider education efforts in New York City. Decreases in reporting delays and increases in physician calls to the STD program were reported in San Francisco following provider syphilis lectures. Increases in provider participation in community action meetings followed provider awareness efforts in Houston, Chicago, and Miami. CONCLUSIONS: Various methods were used to increase provider awareness of syphilis in these 8 cities. The cost and impact of these activities merits more formal evaluation to determine their contribution to syphilis control in MSM.

34. Health Educ Res. 2005 Nov 23; [Epub ahead of print]

Title: **HIV prevention outreach in commercial gay venues in large cities: evaluation findings from London.**
Author: **Bonell C, Strange V, Allen E, Barnett-Page E.**
Affiliation:
Human immunodeficiency virus (HIV) prevention delivered in gay venues in US cities has been found to be effective in reducing HIV transmission in the 1990s but effects might not be generalizable to different times and settings. Doubts have been raised about: outreach's ability to address skills and explore personal behaviour; big-city commercial gay venues being appropriate sites for outreach because of gossip and social surveillance; and acceptability of outreach by professionals rather than 'popular opinion formers'. We evaluated coverage, feasibility, acceptability and perceived impact of venue-based HIV prevention outreach by professionals in London, employing observation, surveys and interviews with venue-users, and focus groups/semi-structured interviews with workers. We found high coverage especially among target groups. Addressing negotiation skills and personal behaviour was feasible but required worker motivation and skill. Social surveillance rarely impeded work. Gay men generally found outreach acceptable and useful, and professionals were not regarded negatively. Impact on knowledge was commonly reported; impacts on negotiation skills and reflection on personal behaviour were more common among men experiencing longer contacts. In conclusion, professional HIV prevention outreach in gay venues in large cities is a feasible and acceptable intervention with significant potential impacts. Workers need to be well briefed and trained to maximize impact.

35. AIDS Educ Prev. 2005 Aug;17(4):386-99.

Title: **Building an HIV/STI prevention program in a gay bathhouse: a case study.**
Author: **Binson D, Blea L, Cotten PD, Kant J, Woods WJ.**
Affiliation: University of California San Francisco, San Francisco, CA 94105, USA. dbinson@psg.ucsf.edu

Gay bathhouses have long been subject to community and public health pressures owing to the perceived link between the behaviors associated with these settings and various sexually transmitted infections. The straightforward solution of closing gay bathhouses has not worked for long when it has been tried. The more complex approach of working with management to develop holistic prevention programs can be problematic also, because developing successful HIV/STD prevention programs requires the collaboration of multiple stake-holders. Furthermore, to overcome the stigma associated with disease, the population, and bathhouse environments places significant, and sometimes awkward, demands on those who undertake such prevention programs. Nevertheless, a number of U.S. cities now have had years of experience with such efforts. This article provides an example of a collaboration of multiple stakeholders to develop a holistic prevention program. We examine our own process of building a collaborative team of bathhouse managers, health department officials, and academics to provide HIV/STD prevention programs in a bathhouse. We describe the process of developing the collaboration and offer recommendations for establishing mutually beneficial relationships among stakeholders.

36. J Womens Health (Larchmt). 2006 Jan-Feb;15(1):90-7.

Title: **Effect of relationship factors on safer sex decisions in older inner-city women.**
Author: **Paranjape A, Bernstein L, St George DM, Doyle J, Henderson S, Corbie-Smith G.**
Affiliation: Division of General Medicine, Emory University School of Medicine, Atlanta, Georgia, USA. aparanj@emory.edu

OBJECTIVES: Heterosexual transmission of the human immunodeficiency virus (HIV) in older women is on the rise, yet little is known about safer sex practices in these women. We sought to determine the prevalence of and effect of relationship factors on safer sex practices among older women living in a high HIV incidence region. METHODS: In a cross-sectional study at an ambulatory medicine clinic of a large inner-city hospital, participants were women over age 50 seeking medical services at the study site. Measurements included (1) partner trust, (2) dependence on partner, (3) personally obtaining condoms, (4) safer sex (frequent condom use or abstinence), (5) knowledge of condom efficacy, and (6) perceived HIV risk. RESULTS: Of 155 participants in a current relationship, 81% were sexually active; however, only 13% of these women used condoms frequently. No significant differences were found between participants who did and did not practice safer sex with respect to their age, race, employment, marital status, knowledge of condom efficacy, or perceived HIV risk. Trust in partner was independently associated with lower odds of safer sex (OR 0.3, 95% CI 0.08-1.06). Personally obtaining condoms (OR 9.2, 95% CI 1.9-44.2) and dependence on partner for condoms (OR 12.3, 95% CI 3.0-50.3) were independently associated with higher odds of safer sex. CONCLUSIONS. Few older women in high HIV incidence areas practice safer sex. Relationship factors impact the risk of acquiring HIV through safer sex decisions. HIV prevention messages geared to
older women should incorporate references to the role these factors can play in reducing their HIV risk.

37. J Community Health. 2005 Oct;30(5):377-89.

Title: **Risk factors for intimate partner violence and associated injury among urban women.**
Author: **Walton-Moss BJ, Manganello J, Frye V, Campbell JC.**
Affiliation: School of Nursing, Johns Hopkins University, Baltimore, Maryland 21205, USA.
bmoss@son.jhmi.edu

The objective of this study was to identify risk factors for abuse and IPV related injury among an urban population. This study reports an additional analysis of a case-control study conducted from 1994 to 2000 in 11 USA metropolitan cities where of 4746 women, 3637 (76.6%) agreed to participate. Control group women (N = 845) were identified through random digit dialing. Significant risk factors for abuse included women's young age (adjusted odds ratio (AOR) 2.05 p = .011), being in fair or poor mental health (AOR 2.65 p < .001), and former partner (AOR 3.33 p < .001). Risk factors for partners perpetrating IPV included not being a high school graduate (AOR 2.06 p = .014), being in fair or poor mental health (AOR 6.61 p < .001), having a problem with drug (AOR 1.94 p = .020) or alcohol use (AOR 2.77 p = .001), or pet abuse (AOR 7.59 p = .011). College completion was observed to be protective (AOR 0.60, p < .001). Significant risk factors for injury included partner's fair or poor mental health (AOR 2.13, p = .008), suicidality (AOR 2.11, p =.020), controlling behavior (AOR 4.31, p < .001), prior domestic violence arrest (AOR 2.66, p = .004), and relationship with victim of more than 1 year (AOR 2.30, p = .026). Through integration of partner related risk factors into routine and/or targeted screening protocols, we may identify more abused women and those at greater risk of abuse and injury.

38. Am J Public Health. 2005 Oct;95(10):1725-36.

Title: **Coming home from jail: the social and health consequences of community reentry for women, male adolescents, and their families and communities.**
Author: **Freudenberg N, Daniels J, Crum M, Perkins T, Richie BE.**
Affiliation: Urban Public Health, Hunter College, City University of New York, 425 E 25th Street, New York, NY 10010, USA. nfreuden@hunter.cuny.edu

Each year, more than 10 million people enter US jails, most returning home within a few weeks. Because jails concentrate people with infectious and chronic diseases, substance abuse, and mental health problems, and reentry policies often exacerbate these problems, the experiences of people leaving jail may contribute to health inequities in the low-income communities to which they return.Our study of the experiences in the year after release of 491 adolescent males and 476 adult women returning home from New York City jails shows that both populations have low employment rates and incomes and high rearrest rates. Few received services in jail. However, overall drug use and illegal activity declined significantly in the year after release. Postrelease employment and health insurance were associated with lower rearrest rates and drug use. Public policies on employment, drug treatment, housing, and health care often blocked successful reentry into society from jail, suggesting the need for new policies that support successful reentry into society.

39. J Adolesc Health. 2005 Dec;37(6):517.

Title: **Aggressive behaviors in early adolescence and subsequent suicidality among urban youths.**
Author: **O'Donnell L, Stueve A, Wilson-Simmons R.**
Affiliation: Education Development Center, Inc., Newton, Massachusetts 02458-7100, USA.
LODonnnell@edc.org

PURPOSE: To examine the association of aggressive behaviors during early adolescence with subsequent suicidality among inner-city males and females. METHODS: Seven hundred sixty nine African-American and Latino males and females were surveyed about their involvement in aggressive behaviors in 8th grade and again during 11th grade, when suicidality was assessed. Logistic regression was used to examine the influence of middle-school aggression on subsequent suicidality, controlling for

demographic and social characteristics and 8th grade depressive symptoms and substance use. At 8th grade, 43% of males and 32% of females reported a recent fight, 33% of males and 19% of females carried a knife, 8% of males and 7% of females used a knife to cut or stab someone, and 15% of males and 4% of females carried a gun. At 11th grade, 24% of males and 29% of females scored high on suicidality, indicating suicidal thoughts, plans, or attempt. RESULTS: Females scoring high on aggression were significantly more likely to report suicidality at 11th grade, controlling for demographic and social factors, early depressive symptoms, and substance use. For males, high depressive symptoms and substance use at 8th grade were related to suicidality, but not earlier aggressive behavior. CONCLUSION: Urban girls who engage in physical aggression in middle school are at risk for subsequent inner-directed violence, including suicidal thoughts and behaviors. To address adolescents' mental health needs, attention must be paid to connections between externally and internally directed forms of violence over time, and whether warning signs of suicidality may differ by gender and require different intervention.

40. Pediatrics. 2005 Oct;116(4):e512-7.

Title: **Fragmented care for inner-city minority children with attention-deficit/hyperactivity disorder.**
Author: **Guevara JP, Feudtner C, Romer D, Power T, Eiraldi R, Nihtianova S, Rosales A, Ohene-Frempong J, Schwarz DF.**
Affiliation: Pediatric Generalist Research Group, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania 19104, USA. guevara@email.chop.edu

OBJECTIVES: To identify systematic problems in coordinating care for inner-city minority youths with attention-deficit/hyperactivity disorder. METHODS: We recruited participants from inner-city minority communities in a single metropolitan area for a focus group study. We held separate meetings for pediatricians, mental health therapists, school staff, and parents (both black and Latino). We audiotaped and transcribed the meetings. We identified themes by consensus and used root cause analysis as a conceptual framework to guide our analysis. RESULTS: We held 13 focus group meetings. Participants uniformly perceived insufficient communication and coordination of care. Five themes representing system and human factors that contributed to this fragmentation in care emerged: (1) a lack of consensus about who should oversee care; (2) changes in health care providers or teachers; (3) uncertainty in the diagnosis, insufficient training, and few resources; (4) distrust and blame that emerged when relationships among people who care for the child were absent or otherwise inadequate; and (5) lack of support from employers, friends, and family to engage in collaborative care. CONCLUSIONS: Using a root cause analysis framework, we identified system- and human-level factors that were perceived to impede communication and coordination of care for this population of children with attention-deficit/hyperactivity disorder. These results suggest that better organizational policies that define provider responsibilities and accountability, support the coordination of care, bridge relationships between agencies, and provide additional education and resources may improve collaboration. Additional study is needed to assess the generalizability of these finding to other settings.

41. Chest. 2005 Oct;128(4):1943-50.

Title: **Quality and access to care among a cohort of inner-city adults with asthma: who gets guideline concordant care?**
Author: **Halm EA, Wisnivesky JP, Leventhal H.**
Affiliation: Division of General Internal Medicine, Department of Medicine, Mount Sinai School of Medicine, Box 1087, One Gustave L. Levy Place, New York, NY 10029, USA. ethan.halm@mountsinai.org

STUDY OBJECTIVES: Asthma morbidity is highest among inner-city populations. This study measured whether quality and access to care over time was concordant with National Asthma Education and Prevention Program (NAEPP) guidelines. It also identified factors associated with NAEPP guideline-concordant care. DESIGN: A prospective, observational cohort study. SETTING: An urban academic

medical center. PATIENTS: A consecutive cohort of 198 inner-city adults hospitalized for asthma. MEASUREMENTS: Detailed information about sociodemographics, asthma history, access to care, history of the current exacerbation, prescription and use of inhaled corticosteroids (ICS) and beta-agonists, and other elements of NAEPP-concordant care (spacers, metered-dose inhaler [MDI] technique, peak flow meters, and action plans) was collected during the index admission and 1 month and 6 months after discharge. RESULTS: In this predominantly low-income, nonwhite cohort, while 92% of patients had insurance and 80% had a usual source of care, 73% reported delays in seeking care. ICS were prescribed for 77% of patients prior to hospital admission, 83% at 1 month, and 67% at 6 months. Adherence with other NAEPP recommendations were 89% for receipt of MDI instruction, 68% for spacers, 80% for peak flow meters, 31% for written action plans for worsening, and 22% for written plans for attacks. In multivariate analysis, greater asthma severity and having a usual source of care increased the odds of receiving ICS, spacers, and peak flow meters. Care by a specialist increased the odds of receiving action plans. Patients who spoke mostly Spanish were less likely to be given spacers or action plans. CONCLUSION: Baseline problems with quality and access to care persisted over time. Better systems of care are needed to ensure that high-risk patients receive an appropriate step-up in the quality of ongoing asthma care.

Topic D: Miscellany of relevance to urban health

42. J Community Health. 2005 Dec;30(6):417-49.

Title: **The development of a Master of Public Health Program with an initial focus on urban and immigrant health at the State University of New York, Downstate Medical Center.**
Author: **Imperato PJ, LaRosa JH, Schechter L.**
Affiliation: Department of Preventive Medicine and Community Health and Director of the Master of Public Health Program, SUNY Downstate Medical Center, Brooklyn, NY11203, USA.
pascal.imperato@downstate.edu

The State University Downstate Medical Center initiated a Master of Public Health (MPH) degree program in July 2001 following planning efforts that began in 1995. Twelve Students entered the program in June 2002. Currently, eightystudents are enrolled in the program and eighteen have graduated from it in 2004 and 2005. With an initial focus on urban and immigrant health, the program aims to train public health professionals who can assist in addressing through population-based interventions the health issues of Brooklyn's 2,465,326 people, of whom 38.5% are immigrants to the United States. Starting with four courses in the summer 2002 semester, the program now offers twenty-four courses over the three semesters of the academic year. The program is housed in the Department of Preventive Medicine and Community Health of the College of Medicine and is part-time in nature for most students. In addition to completing required course work, students must also complete a 250-hour practicum experience in which they apply theoretical knowledge in a public health practice setting. Student practicum experiences play a vital role in linking the program to communities and serve as conduits for the initiation of further community based collaboratives. This article describes the challenges encountered in initiating an MPH program in an academic medical center, the importance of both intramural and community support to its success, and the vital role it plays in addressing the health issues of various communities. The program became a leading priority of the Strategic Plan of the Downstate Medical Center in 2000, and received the full support of Downstate's then new president, Dr. John C. LaRosa. This prioritization and support proved essential to the rapid development of the program. The Downstate MPH program offers a concurrent degree to medical students who are able to complete both degrees in a four year period. The Alumni Fund of the College of Medicine provides each MD/MPH student with a one-time scholarship which covers a quarter of the MPH tuition. Concurrent MPH degrees are also offered for graduate students enrolled in occupational therapy, nursing, and several other health programs. The Council on Education for Public Health (CEPH) conducted an accreditation site visit of the Downstate MPH program in December 2004. On June 10, 2005, the CEPH Board accredited the program for 5 years.

43. Cad Saude Publica. 2005 Nov-Dec;21(6):1629-48; discussion 1649-64. Epub 2006 Jan 9.

Title: **Urban violence and public health in Latin America: a sociological explanatory framework.**
Author: **Briceno-Leon R.**
Affiliation: Laboratorio de Ciencias Sociales, Universidad Central de Venezuela, Caracas, Venezuela.
bricenoleon@cantv.net

Interpersonal violence has become one of the main public health issues in Latin American cities. This article presents a framework for sociological interpretation that operates on three levels, expressed in the factors that originate, foment, or facilitate violence. Macro-social factors include: social inequality due to the increase in wealth versus poverty; the paradox of more schooling with fewer employment opportunities; increasing expectations and the impossibility of meeting them; changes in family structure; and loss of importance of religion in daily life. At the meso-social level the analysis highlights: increased density in poor areas and urban segregation; masculinity cult; and changes in the local drug market. The micro-social level includes: an increase in the number of firearms; alcohol consumption; and difficulties in verbal expression of feelings. The article concludes with an analysis of how violence is leading to the breakdown not only of urban life but also of citizenship as a whole in Latin America.

Every month the International Society for Urban Health distributes a literature review on current work related to urban health. To join the distribution list, please send a message to imailsrv.ichru.ca. In the body of the email (not in the subject line), please type “subscribe isuh YOUR NAME.” You should receive an automatic confirmation of your subscription to the listserv.