



The International Society for Urban Health
New York Academy of Medicine
1216 Fifth Avenue
New York, NY 10029
T: 212.822.7387 ♦ www.isuh.org ♦ F: 212.876.6220

Urban Health Literature Review

June-August 2006

Topic A: Urban Health Effects

Topic B: Neighborhood, Social, and Built Environment Effects

Topic C: Adolescents and Children

Topic D: Other Vulnerable, at Risk, or Hidden Populations

Topic A: Urban Health Effects

- (1) **Cassell J, Leach M, Fairhead J, Small M, Mercer C. The social shaping of childhood vaccination practice in rural and urban Gambia. *Health Policy Plan* 2006 September;21(5):373-91.**

Improving childhood vaccination coverage is a key health policy objective in Africa, and as availability increases, it will depend on addressing issues of demand and timely schedule completion. This paper explores vaccination demand in urban and rural areas of The Gambia as shaped by prevailing local vaccination cultures (comprising maternal knowledge and understandings, socio-cultural contexts and interactions with health providers). A survey of 1600 mothers constructed on the basis of prior ethnography finds a high level of social demand for vaccination, based on lay theories of the general value of immunization in complementing traditional child protection practices. For most rural mothers, strong social networks encourage routine clinic attendance and vaccination 'default' arises only through day-to-day problems and contingencies. However, more pervasive patterns of schedule non-completion are found amongst poorer urban mothers, including recent immigrants, who experience social exclusion at infant welfare clinics. These findings point to the need for health education dialogue grounded in mothers' own understandings and for particular policy attention to improving the clinic experiences of vulnerable social groups in rapidly expanding urban areas.

- (2) **Volzke H, Neuhauser H, Moebus S et al. Urban-rural disparities in smoking behaviour in Germany. *BMC Public Health* 2006 June 6;6:146.:146.**

BACKGROUND: It is currently not clear whether individuals living in metropolitan areas differ from individuals living in rural and urban areas with respect to smoking behaviours.

Therefore, we sought to explore the relation between residential area and smoking behaviours in Germany. **METHODS:** We used a nationwide German census representative for the general population of Germany. A number of 181,324 subjects aged 10 years or older were included. Information on the average daily usage of cigarettes that have or had been smoked formerly or currently was available in subjects who have ever smoked. A daily consumption of more than 20 cigarettes was considered heavy smoking. Logistic regression analyses were performed sex-stratified and adjusted for relevant confounders. **RESULTS:** Analyses revealed inhabitants of metropolitan areas to be more likely current smokers than inhabitants of rural areas (odds ratio 1.56, 95%-confidence interval 1.51; 1.62). Among current and former smokers those who lived in urban communities had also increased odds for being heavy smokers than those who lived in rural communities. **CONCLUSION:** We conclude that living in an urban and particularly living in a metropolitan area is a determinant

of both smoking and severity of current smoking. Tobacco control programs should recognize the difference in living conditions between rural and urban areas.

(3) Agyemang C. Rural and urban differences in blood pressure and hypertension in Ghana, West Africa. *Public Health* 2006 June;120(6):525-33.

BACKGROUND: Hypertension, once rare in traditional African societies, is rapidly becoming a major public health problem. **OBJECTIVE:** To assess urban and rural differences in blood pressure (BP) and hypertension, and to determine factors associated with BP in this sub-Saharan African population. **STUDY DESIGN:** Cross-sectional survey. **SETTING:** Ashanti region of Ghana, West Africa. **PARTICIPANTS:** There were 1431 participants (644 males and 787 females). Of these, 578 were from the rural setting (237 males and 341 females) and 853 from the urban setting (407 males and 446 females). **RESULTS:** Age-adjusted mean systolic and diastolic BP levels were lower in rural men than in urban men (129/75 versus 133/78, $P<0.001$). The mean systolic and diastolic BP levels were also lower in rural women than in urban women (126/76 versus 131/80, $P<0.001$). After adjustments for age, the odds ratios (95% CI) for being hypertensive were 1.9 (1.3-2.9; $P<0.01$) for urban men and 1.9 (1.3-2.8; $P<0.0001$) for urban women. Urban women were more likely than rural women to be aware of their hypertensive condition (odds ratio 2.3, 95% CI, 1.2-4.2; $P<0.001$). Treatment and control of hypertension did not differ between the groups in either men or women. In multiple linear regression analysis, age, urban dwelling, BMI and heart rate were independently associated with systolic and diastolic BP in both men and women. Smoking and alcohol consumption were independently associated with systolic and diastolic BP but only in men. **CONCLUSION:** The findings of this study demonstrate that high BP (hypertension) is an important public health burden in both urban and rural settings in this sub-Saharan African population. Cost-effective public health measures are urgently needed to prevent high BP from becoming another public health burden.

(4) Moorin RE, Holman CD, Garfield C, Brameld KJ. Health related migration: evidence of reduced "urban-drift". *Health Place* 2006 June;12(2):131-40.

The aim of this study was to determine if the onset of serious disease triggers a different intra-state migratory response from patterns observed in the healthy population. The analysis was carried out using linked administrative data. The onset of serious disease triggered a reduction in the rate of endocentric migration in remote and rural populations. Urban drift occurred only in people with mental illness in rural locations. Rural and remote communities appear to suffer from an unhealthy selection force, with persons unable to migrate centrally to access services due to the onset of the physical illness they require treatment for.

(5) Utzinger J, Keiser J. Urbanization and tropical health--then and now. *Ann Trop Med Parasitol* 2006 July;100(5-6):517-33.

Since the launch of the *Annals of Tropical Medicine and Parasitology* 100 years ago, the percentage of the world's population living in urban settings has more than tripled and is now approaching 50%. Urbanization will continue at a high pace, particularly in the less developed regions of Africa and Asia. The profound demographic, ecological and socio-economic transformations that accompany the process of urbanization have important impacts on health and well-being. In industrialized countries, urbanization led to the so-called 'epidemiological transition', from acute infectious and deficiency diseases to chronic non-communicable diseases, many decades ago. In the developing world, surprisingly little research has been carried out on the health-related aspects of urbanization. In a temporal analysis of publications in the *Annals of Tropical Medicine and Parasitology*, for example, in which the first volume in every decade from 1907 was examined, only 16 (2.6%) of the 604 articles investigated focused on epidemiological and/or public-health issues in urban tropical settings. This review begins with the question 'what is urban?' and then provides a summary of the trends seen in urbanization, and its impacts on human health, over the past century, on

both a global and regional scale. For the main tropical diseases, estimates of the at-risk populations and the numbers of cases are updated and then split into urban and non-urban categories. The inhabitants of urban slums are particularly vulnerable to many of these diseases and require special attention if internationally-set targets for development are to be met. Heterogeneity, a major feature of urban settings in the tropics that complicates all efforts at health improvement, is demonstrated in an exploration of a densely populated municipality of a large West African town. Urban planners, public-health experts and other relevant stakeholders clearly need to make much more progress in alleviating poverty and enhancing the health and well-being of urban residents, in an equity-effective and sustainable manner.

(6) Popkin BM. Global nutrition dynamics: the world is shifting rapidly toward a diet linked with noncommunicable diseases. *Am J Clin Nutr* 2006 August;84(2):289-98.

Global energy imbalances and related obesity levels are rapidly increasing. The world is rapidly shifting from a dietary period in which the higher-income countries are dominated by patterns of degenerative diseases (whereas the lower- and middle-income countries are dominated by receding famine) to one in which the world is increasingly being dominated by degenerative diseases. This article documents the high levels of overweight and obesity found across higher- and lower-income countries and the global shift of this burden toward the poor and toward urban and rural populations. Dietary changes appear to be shifting universally toward a diet dominated by higher intakes of animal and partially hydrogenated fats and lower intakes of fiber. Activity patterns at work, at leisure, during travel, and in the home are equally shifting rapidly toward reduced energy expenditure. Large-scale decreases in food prices (eg, beef prices) have increased access to supermarkets, and the urbanization of both urban and rural areas is a key underlying factor. Limited documentation of the extent of the increased effects of the fast food and bottled soft drink industries on this nutrition shift is available, but some examples of the heterogeneity of the underlying changes are presented. The challenge to global health is clear.

(7) Forastiere F, Stafoggia M, Tasco C et al. Socioeconomic status, particulate air pollution, and daily mortality: Differential exposure or differential susceptibility. *Am J Ind Med* 2006 July 17; [Epub ahead of print].

BACKGROUND: Short-term increases in particulate air pollution are linked with increased daily mortality and morbidity. Socioeconomic status (SES) is a determinant of overall health. We investigated whether social class is an effect modifier of the PM(10) (particulate matter with diameter <10 micron)-daily mortality association, and possible mechanisms for this effect modification. **METHODS:** Area-based traffic emissions, income, and SES were available for each resident in Rome. All natural deaths (83,253 subjects) occurring in Rome among city residents (aged 35+ years) during the period 1998-2001 were identified. For each deceased individual, all the previous hospitalizations within 2 years before death were available via a record linkage procedure. PM(10) daily data were available from two urban monitoring sites. A case-crossover analysis was utilized in which control days were selected according to the time stratified approach (same day of the week during the same month). Conditional logistic regression was used. **RESULTS:** Due to the social class distribution in the city, exposure to traffic emissions was higher among those with higher area-based income and SES. Meanwhile, people of lower social class had suffered to a larger extent from chronic diseases before death than more affluent residents, especially diabetes mellitus, hypertension, heart failure, and chronic obstructive pulmonary diseases. Overall, PM(10) (lag 0-1) was strongly associated with mortality (1.1% increase, 95%CI = 0.7-1.6%, per 10 microg/m³). The effect was more pronounced among persons with lower income and SES (1.9% and 1.4% per 10 microg/m³, respectively) compared to those in the upper income and SES levels (0.0% and 0.1%, respectively). **CONCLUSIONS:** The results confirm previous suggestions of a stronger effect of particulate air pollution among people in low social class. Given the uneven geographical distributions of social deprivation and traffic emissions in Rome, the most likely

explanation is a differential burden of chronic health conditions conferring a greater susceptibility to less advantaged people.

Topic B: Neighborhood, Social, and Built Environment Effects

(8) Shah AM, Whitman S, Silva A. Variations in the health conditions of 6 Chicago community areas: a case for local-level data. *Am J Public Health* 2006 August;96(8):1485-91.

OBJECTIVES: Although local-level chronic disease and risk factor data are not typically available, they are valuable for guiding public health interventions and policies. To present a case for disaggregated community-level health data, we conducted a study exploring the relevance of such data to research on health disparities. **METHODS:** We designed a population-based health survey to gather information on many health measures, 13 of which are presented here. Interviews were conducted with 1699 adults (18-75 years) in 6 Chicago community areas between September 2002 and April 2003. **RESULTS:** Statistically significant variations in health measures were found between the 6 communities themselves (108 of 195 pairwise comparisons were significant) and between the communities and Chicago as a whole (35 of 54 comparisons were significant). **CONCLUSIONS:** The local-level variations in health revealed in this study emphasize that geographic and racial/ethnic health disparities are still prominent in Chicago and shed light on the limitations of existing city- and regional-level data.

(9) Maas B, Fairbairn N, Kerr T, Li K, Montaner JS, Wood E. Neighborhood and HIV infection among IDU: Place of residence independently predicts HIV infection among a cohort of injection drug users. *Health Place* 2006 June 22; [Epub ahead of print].

This study was undertaken to investigate geographic residence in Vancouver's Downtown Eastside (DTES), Canada's poorest urban neighborhood, as an environmental risk factor for HIV infection among a cohort of injection drug users. HIV incidence rates were examined using Kaplan-Meier methods, and Cox proportional hazards regression was used to determine independent risk factors for HIV seroconversion. After intensive multivariate adjustment, DTES residence remained an independent predictor of HIV seroconversion (relative hazard=2.0, 95% CI: 1.4-3.0, $p < 0.001$). These findings indicate the need for a greater recognition among policy-makers of geographic location as a risk factor for HIV incidence in urban settings and the need for further research to determine why place contributes so greatly to HIV risk. The findings also mark a need for prevention interventions to be appropriately targeted towards high-risk neighborhoods.

(10) Wight RG, Aneshensel CS, Miller-Martinez D et al. Urban neighborhood context, educational attainment, and cognitive function among older adults. *Am J Epidemiol* 2006 June 15;163(12):1071-8.

Existing research has not addressed the potential impact of neighborhood context--educational attainment of neighbors in particular--on individual-level cognition among older adults. Using hierarchical linear modeling, the authors analyzed data from the 1993 Study of Assets and Health Dynamics Among the Oldest Old (AHEAD), a large, nationally representative sample of US adults born before 1924. Data from participants residing in urban neighborhoods ($n = 3,442$) were linked with 1990 US Census tract data. Findings indicate that 1) average cognitive function varies significantly across US Census tracts; 2) older adults living in low-education areas fare less well cognitively than those living in high-education areas, net of individual characteristics, including their own education; 3) this

association is sustained when controlling for contextual-level median household income; and 4) the effect of individual-level educational attainment differs across neighborhoods of varying educational profiles. Promoting educational attainment among the general population living in disadvantaged neighborhoods may prove cognitively beneficial to its aging residents because it may lead to meliorations in stressful life conditions and coping deficiencies.

(11) Gary TL, Stark SA, Laveist TA. Neighborhood characteristics and mental health among African Americans and whites living in a racially integrated urban community. *Health Place* 2006 August 10; [Epub ahead of print].

Aspects of the environment in which one lives are increasingly being recognized as major contributors to health, yet few empirical studies have focused on mental health. Therefore, we sought to determine if neighborhood characteristics were associated with mental health outcomes among 1408 African-American (59.3%) and white (40.7%) adults living in a socio-economically homogeneous, racially integrated, urban community in Baltimore, MD. Among African Americans and whites, the perception of severe problems in the community was associated with higher levels of stress (approximately 1.8 units higher), anxiety (approximately 1.8 units higher), and depression (OR= approximately 2.0) compared to those who perceived no or few problems (all $p < 0.05$). Community cohesion, the perception that people generally work together, was associated with better mental health among whites only. These findings give further insight into the complex environment of inner-city communities.

(12) Matheson FI, Moineddin R, Dunn JR, Creatore MI, Gozdyra P, Glazier RH. Urban neighborhoods, chronic stress, gender and depression. *Soc Sci Med* 2006 August 18; [Epub ahead of print].

Using multilevel analysis we find that residents of "stressed" neighborhoods have higher levels of depression than residents of less "stressed" neighborhoods. Data for individuals are from two cycles of the Canadian Community Health Survey, a national probability sample of 56,428 adults living in 25 Census Metropolitan Areas in Canada, with linked information about the respondents' census tracts. Depression is measured with the Center for Epidemiologic Studies-Depression Scale Short Form and is based on a cutoff of 4+ symptoms. Factor analysis of census tract characteristics identified two measures of neighborhood chronic stress-residential mobility and material deprivation-and two measures of population structure-ethnic diversity and dependency. After adjustment for individual-level gender, age, education, marital and visible minority status and neighborhood-level ethnic diversity and dependency, a significant contextual effect of neighborhood chronic stress survives. As such, the daily stress of living in a neighborhood where residential mobility and material deprivation prevail is associated with depression. Since gender frames access to personal and social resources, we explored the possibility that women might be more reactive to chronic stressors manifested in higher risk of depression. However, we did not find random variation in depression by gender across neighborhoods.

(13) Miles R. Neighborhood disorder and smoking: Findings of a European urban survey. *Soc Sci Med* 2006 August 10; [Epub ahead of print].

Using the Large Analysis and Review of European housing and health Status (LARES) survey, this paper investigates the influence of neighborhood physical disorder on smoking behaviors, and the extent to which it is mediated by perceptions of safety. Indicators of physical disorder: litter, graffiti, and the absence of vegetation on facades, balconies or windows, were directly observed by surveyors. The paper also considers whether the place effects on smoking are similar across the 7 European cities in the study. Results indicate that the odds of smoking are 64% higher for those living in an area rated high on neighborhood disorder compared to low. The effect is substantially greater for men than for women with men in areas rated high on disorder showing odds of smoking that are twice as high as those living in areas rated low. The association does not vary by city of residence. Only a small part

of the effect of neighborhood disorder is mediated by perceptions of safety. The finding of a substantial neighborhood physical disorder effect on smoking across a range of cities in Europe adds to the evidence suggesting that environmental interventions are worth pursuing in conjunction with other approaches to smoking prevention.

(14)Corburn J, Osleeb J, Porter M. Urban asthma and the neighbourhood environment in New York City. *Health Place* 2006 June;12(2):167-79.

Asthma is now the leading cause of emergency room visits, hospitalizations, and missed school days in New York City's poorest neighbourhoods. While most research focuses on the influence of the indoor environment on asthma, this study examines the neighbourhood effects on childhood asthma, such as housing and ambient environmental hazards. Using Geographic Information Science (GI Science) we identify neighbourhoods with elevated concentrations of childhood asthma hospitalizations between 1997 and 2000 in US census tracts, analyze the sociodemographic, housing characteristics, and air pollution burdens from stationary, land use and mobile sources in these areas. The paper reveals the importance of distinguishing the specific and often different combinations of poor housing conditions, outdoor air pollution and noxious land uses that contribute to the high incidence of asthma in impoverished urban neighbourhoods.

(15)Nelson MC, Gordon-Larsen P, Song Y, Popkin BM. Built and social environments associations with adolescent overweight and activity. *Am J Prev Med* 2006 August;31(2):109-17.

BACKGROUND: Little is known about the patterning of neighborhood characteristics, beyond the basic urban, rural, suburban trichotomy, and its impact on physical activity (PA) and overweight. METHODS: Nationally representative data (National Longitudinal Study of Adolescent Health, 1994-1995, n = 20,745) were collected. Weight, height, PA, and sedentary behavior were self-reported. Using diverse measures of the participants' residential neighborhoods (e.g., socioeconomic status, crime, road type, street connectivity, PA recreation facilities), cluster analyses identified homogeneous groups of adolescents sharing neighborhood characteristics. Poisson regression predicted relative risk (RR) of being physically active (five or more bouts/week of moderate to vigorous PA) and overweight (body mass index equal or greater than the 95th percentile, Centers for Disease Control and Prevention/National Center for Health Statistics growth curves). RESULTS: Six robust neighborhood patterns were identified: (1) rural working class; (2) exurban; (3) newer suburban; (4) upper-middle class, older suburban; (5) mixed-race urban; and (6) low-socioeconomic-status (SES) inner-city areas. Compared to adolescents living in newer suburbs, those in rural working-class (adjusted RR[ARR] = 1.38, 95% confidence interval [CI] = 1.13-1.69), exurban (ARR = 1.30, CI = 1.04-1.64), and mixed-race urban (ARR = 1.31, CI = 1.05-1.64) neighborhoods were more likely to be overweight, independent of individual SES, age, and race/ethnicity. Adolescents living in older suburban areas were more likely to be physically active than residents of newer suburbs (ARR = 1.11, CI = 1.04-1.18). Those living in low-SES inner-city neighborhoods were more likely to be active, though not significantly so, compared to mixed-race urban residents (ARR = 1.09, CI = 1.00-1.18). CONCLUSIONS: These findings demonstrate disadvantageous associations between specific rural and urban environments and behavior, illustrating important effects of the neighborhood on health and the inherent complexity of assessing residential landscapes across the United States. Simple classical urban-suburban-rural measures mask these important complexities.

(16)Groenewegen PP, van den Berg AE, de VS, Verheij RA. Vitamin G: effects of green space on health, well-being, and social safety. *BMC Public Health* 2006 June 7;6:149.

BACKGROUND: Looking out on and being in the green elements of the landscape around us seem to affect health, well-being and feelings of social safety. This article discusses the

design of a research program on the effects of green space in the living environment on health, well-being and social safety. **METHODS/DESIGN:** The program consists of three projects at three different scales: at a macro scale using data on the Netherlands as a whole, at an intermediate scale looking into the specific effect of green space in the urban environment, and at micro scale investigating the effects of allotment gardens. The projects are observational studies, combining existing data on land use and health interview survey data, and collecting new data through questionnaires and interviews. Multilevel analysis and GIS techniques will be used to analyze the data. **DISCUSSION:** Previous (experimental) research in environmental psychology has shown that a natural environment has a positive effect on well-being through restoration of stress and attentional fatigue. Descriptive epidemiological research has shown a positive relationship between the amount of green space in the living environment and physical and mental health and longevity. The program has three aims. First, to document the relationship between the amount and type of green space in people's living environment and their health, well-being, and feelings of safety. Second, to investigate the mechanisms behind this relationship. Mechanisms relate to exposure (leading to stress reduction and attention restoration), healthy behavior and social integration, and selection. Third, to translate the results into policy on the crossroads of spatial planning, public health, and safety. Strong points of our program are: we study several interrelated dependent variables, in different ordinary settings (as opposed to experimental or extreme settings), focusing on different target groups, using appropriate multilevel methods.

(17) Gruenewald PJ, Remer L. Changes in outlet densities affect violence rates. *Alcohol Clin Exp Res* 2006 July;30(7):1184-93.

BACKGROUND: Previous assessments of empirical relationships between alcohol outlets and rates of interpersonal violence have been conducted using cross-sectional spatial data, data collected across small geographic units such as Census Tracts and zip codes. These assessments demonstrate that the availability of alcohol, measured by the number and types of alcohol outlets, is related to violence. These analyses have examined many potential confounds of the outlets-violence connection (i.e., population and place characteristics) and statistically corrected for biases that arise in analyses of spatial data. The current study contributes the first observation of longitudinal relationships between alcohol outlets and violence. **METHOD:** The study examined longitudinal data from 581 consistently defined zip code areas represented in the California Index Locations Database, a geographic information system that coordinates population and ecological data with spatial attributes for areas across the state. Six years of data were collected on features of local populations (e.g., household size) and places (e.g., retail markets) thought to be related to 1 measure of violence (i.e., hospital discharges related to violent assaults). Assault rates were related to changes in population and place characteristics using random effects models with controls for spatial autocorrelation ($n \times t = 3,486$ observations). Changes in population and place characteristics of bordering (spatial lagged) areas were also considered. **RESULTS:** Lower median household income and greater percentages of minorities (African American, Hispanic, and Asian) were related to increased rates of violence. Ten percent increases in numbers of off-premise outlets and bars were related to 1.67 and 2.06% increases in violence rates across local and lagged spatial areas. Every 6 outlets accounted for 1 additional violent assault that resulted in at least 1 overnight stay at hospital. These effects increased with larger male populations, doubling with every 3% increase in percent males. **CONCLUSION:** Assault rates were most strongly related to median household incomes and minority populations within zip code areas. Controlling for changes in assault rates related to these measures, greater numbers of licensed alcohol retail establishments, especially bars and off-premise outlets, were related to rates of assault. Failures to regulate the growth in numbers of bars will increase rates of violence, especially in urban areas.

(18) Yonas MA, O'Campo P, Burke JG, Gielen AC. Neighborhood-Level Factors and Youth Violence: Giving Voice to the Perceptions of Prominent Neighborhood Individuals. *Health Educ Behav* 2006 July 21; [Epub ahead of print].

Youth violence is a significant public health problem. Although the relationship between neighborhood-level factors and urban youth violence is recognized, the specific mechanisms of this relationship are often unclear. Prominent neighborhood individuals were identified within four select low-income urban neighborhoods in Baltimore City. In-depth interviews were conducted to explore these individuals' perceptions of the relationship between social and structural neighborhood-level factors and urban youth violence. Employment opportunities, local businesses, trash management, vacant housing, and street lighting were perceived as important neighborhood factors influencing young people's experiences. The relationship between these neighborhood characteristics and the local illicit drug market and youth violence is highlighted. Results provide an enhanced understanding of the importance of using a participatory-based research approach and the mechanisms of the relationship between neighborhood-level factors and youth violence. Both are critical components in designing and implementing multilevel youth violence prevention efforts.

(19)Wamsler C. Mainstreaming risk reduction in urban planning and housing: a challenge for international aid organisations. *Disasters* 2006 June;30(2):151-77.

The effects of 'natural' disasters in cities can be worse than in other environments, with poor and marginalised urban communities in the developing world being most at risk. To avoid post-disaster destruction and the forced eviction of these communities, proactive and preventive urban planning, including housing, is required. This paper examines current perceptions and practices within international aid organisations regarding the existing and potential roles of urban planning as a tool for reducing disaster risk. It reveals that urban planning confronts many of the generic challenges to mainstreaming risk reduction in development planning. However, it faces additional barriers. The main reasons for the identified lack of integration of urban planning and risk reduction are, first, the marginal position of both fields within international aid organisations, and second, an incompatibility between the respective professional disciplines. To achieve better integration, a conceptual shift from conventional to non-traditional urban planning is proposed. This paper suggests related operative measures and initiatives to achieve this change.

(20)Semenza JC, Krishnasamy PV. Design of a Health-Promoting Neighborhood Intervention. *Health Promot Pract* 2006 June 30; [Epub ahead of print].

Design and implementation of health-promoting community interventions can advance public health and community well-being; however, realization of such programs is often challenging. Even more challenging is the implementation of ecologic interventions to revitalize built urban environments. A structured intervention entitled "Intersection Repair" was devised in Portland, Oregon, by a non-profit organization, to implement urban gathering places in the public right of way; specific steps included situation analysis, community outreach, asset mapping, design workshops, construction permitting, building workshops, and process evaluation. The community created human-scale urban landscapes with interactive art installations to encourage social interactions. Such aesthetic improvements, which included painted street murals, information kiosks, hanging gardens, water fountains, benches, and so on, were intended to strengthen social networks and social capital by providing places for residents to engage in conversation. Community engagement in neighborhood design benefits the public at multiple levels, by promoting a healthier lifestyle, over and above urban landscape improvements.

Topic C: Adolescents and Children

(21)Brook JS, Morojele NK, Brook DW, Zhang C, Whiteman M. Personal, interpersonal, and cultural predictors of stages of cigarette smoking among adolescents in Johannesburg, South Africa. *Tob Control* 2006 June;15 Suppl 1:i48-53.:i48-i53.

OBJECTIVE: This study examined the personal, parental, peer, and cultural predictors of stage of smoking among South African urban adolescents. **DESIGN:** A cross-sectional design was employed. A stratified random approach based on census data was used to obtain the sample. Analyses were conducted using logistic regression. **SETTING:** The study took place in communities in and around Johannesburg, South Africa. **SUBJECTS:** Participants consisted of 731 adolescents in the age range of 12-17 years old. The sample was 47% male and 53% female, and contained four ethnic classifications: white, black, Indian, and "coloured" (a South African term for mixed ancestry). **METHODS:** A structured, in-person interview was administered to each participant in private by a trained interviewer, after obtaining consent. **MAIN OUTCOME MEASURES:** The dependent variables consisted of three stages of smoking: non-smoking, experimental smoking, and regular smoking. The independent measures were drawn from four domains: personal attributes, parental, peer, and cultural influences. **RESULTS:** Factors in all four domains significantly predicted three different stages of smoking. Personal attributes (internalising and externalising) distinguished among the three stages. Parental factors (for example, affection) reduced the odds of being a regular smoker compared with an experimental smoker or non-smoker, but did not differentiate experimental smokers from non-smokers. Findings from the peer domain (for example, peer substance use) predicted an increase in the risk of being a regular smoker compared with an experimental smoker or non-smoker. In the cultural domain, ethnic identification predicted a decrease in the risk of being a regular smoker compared with an experimental smoker, whereas discrimination and victimisation predicted an increase in the risk of being an experimental smoker compared with a non-smoker. **CONCLUSIONS:** All the domains were important for all four ethnic groups. Four psychosocial domains are important in distinguishing among the three stages of smoking studied. Some predictors differentiated all stages of smoking, others between some of the stages of smoking. Therefore, intervention and prevention programmes which are culturally and linguistically sensitive and appropriate should consider the individual's stage of smoking.

(22) Burgess DE. Alcohol use, smoking, and feeling unsafe: health risk behaviors of two urban seventh grade classes. *Issues Compr Pediatr Nurs* 2006 July;29(3):157-71.

Health risk behaviors undertaken in adolescence, such as drinking alcohol and smoking, can have a lasting consequence on both short-term and long-term health. To better describe the health risk behaviors being undertaken by an urban adolescent population, a study was conducted at two parochial, middle schools in the Southwest section of Philadelphia, Pennsylvania, USA. The study purpose was to describe the types of health risk behaviors being undertaken by a seventh grade student population, the frequency of health risk behaviors, and the age of initiation of the health risk behavior. A descriptive, correlational study was undertaken with 105 seventh graders (ages of 11 to 13 years) from two middle schools using the Youth Risk Behaviors Surveillance System (YRBSS) Questionnaire. Information was collected about health risk behaviors such as alcohol use and tobacco use and feeling safe. Findings indicated that these adolescent students reported increased incidence of health risk behaviors including alcohol use, smoking, and carrying weapons to combat their feeling unsafe in their neighborhoods. Interestingly, there were differences between schools in the type of health risk behaviors in which the students participated. Nurses are often in an ideal position to assess the health and behaviors of adolescents and to offer education, health promotion, and support to this at-risk population.

(23) Cheng TL, Johnson S, Wright JL et al. Assault-injured adolescents presenting to the emergency department: causes and circumstances. *Acad Emerg Med* 2006 June;13(6):610-6.

OBJECTIVES: To describe the causes and circumstances of conflict leading to assault injury among urban youth seeking care in the emergency department. **METHODS:** The authors conducted in-person and telephone interviews with a convenience sample of 143 youth aged

12-19 years presenting to two urban emergency departments with an interpersonal assault injury. Patients were interviewed about the nature and circumstances of their injury. Descriptive analysis was performed, including stratified analysis by gender, age (12-15 vs. 16-19 years), and weapon use. RESULTS: Seventy percent of patients knew or knew of the person(s) who injured them; most were friends, classmates, or acquaintances. More than half of the injuries (56%) were related to a past disagreement. Among assaults related to a past disagreement, 33% of patients had previous arguments with their assailant, 16% had previous fights, and 14% had previous weapons threats. Twenty-nine percent had been previously threatened, and 11% had previously threatened their assailant. Twenty-eight percent of patients believed they helped to cause the injury by provoking a fight or letting down their guard. Nearly two thirds (64%) believed there were things they could change to prevent future injury, including staying away from dangerous situations and bad influences or controlling their tempers. CONCLUSIONS: Most assault injuries among adolescents involved past disagreements with people they knew. Many injured youth were mutually involved in conflict before their injury. Over time, many victims and perpetrators may be interchangeable. These data may help inform emergency department-based interventions to prevent assault injury.

(24)Ozer EJ, McDonald KL. Exposure to violence and mental health among Chinese American urban adolescents. *J Adolesc Health* 2006 July;39(1):73-9.

PURPOSE: This cross-sectional study examined exposure to violence as a predictor of mental health and perpetration of violence in a sample of 71 Chinese American young adolescents from nine urban middle schools. METHODS: Separate hierarchical multiple regressions were used to predict self-reported symptoms of depression and post-traumatic stress disorder (PTSD), perpetration of violence, and teacher-reported symptoms of anxiety, depression, and adaptive functioning. RESULTS: After controlling for daily hassles, exposure to violence uniquely predicted higher self-reported PTSD and depressive symptoms. After controlling for prior academic achievement and daily hassles, exposure to violence uniquely predicted more perpetration of violence. CONCLUSIONS: Our study suggests that exposure to violence is associated with worse mental health and more perpetration of violence among Chinese American adolescents living in urban areas.

(25)Ceballo R, Ramirez C, Maltese KL, Bautista EM. A bilingual "neighborhood club": intervening with children exposed to urban violence. *Am J Community Psychol* 2006 June;37(3-4):167-74.

Mental health practitioners have offered relatively little in response to the pervasive community violence faced by many children living in impoverished neighborhoods. The "neighborhood club" is a school-based, short-term, support group designed to assist children with the psychological impact of exposure to community violence. Ten "neighborhood clubs" were conducted in two public elementary schools in Detroit, Michigan. This paper reviews the implementation of a bilingual "neighborhood club," undertaken to better serve the Spanish-speaking Latino students in a school community. We discuss many of the rewards and challenges of conducting a bilingual, multicultural support group for children and conclude that a bilingual support group provides all children with a model that validates ethnic and cultural diversity while also building empathic bonds based on mutually-reinforcing, common experiences.

(26)Calderoni ME, Alderman EM, Silver EJ, Bauman LJ. The mental health impact of 9/11 on inner-city high school students 20 miles north of Ground Zero. *J Adolesc Health* 2006 July;39(1):57-65.

PURPOSE: To determine the rate of post-traumatic stress disorder (PTSD) after 9/11 in a sample of New York City high school students and associations among personal exposure, loss of psychosocial resources, prior mental health treatment, and PTSD. METHODS: A total

of 1214 students (grades 9 through 12) attending a large community high school in Bronx County, 20 miles north of "Ground Zero," completed a 45-item questionnaire during gym class on one day eight months after 9/11. Students were primarily Hispanic (62%) and African American (29%) and lived in the surrounding neighborhood. The questionnaire included the PCL-T, a 17-item PTSD checklist supplied by the Office of Behavioral and Social Science Research of the National Institutes of Health (NIH). The PCL-T was scored following the DSM-IV criteria for PTSD requiring endorsement of at least one repeating symptom, two hyperarousal symptoms, and three avoidance symptoms. Bivariate analysis comparing PTSD with personal exposure, loss of psychosocial resources, and mental health variables was done and multiple logistic regression was used to identify significant associations. RESULTS: There were 7.4 % of students with the PTSD symptom cluster. Bivariate analysis showed a trend for females to have higher rates of PTSD (males [6%] vs. females [9%], $p = .06$) with no overall ethnic differences. Five of the six personal exposure variables, and both of the loss of psychosocial resources and mental health variables were significantly associated with PTSD symptom cluster. Multiple logistic regression analysis found one personal exposure variable (having financial difficulties after 9/11, odds ratio [OR] = 5.27; 95% confidence interval [CI] 2.9-9.7); both the loss of psychosocial resources variables (currently feeling less safe, OR = 3.58; 95% CI 1.9-6.8) and currently feeling less protected by the government, (OR = 4.04; 95% CI 2.1-7.7); and one mental health variable (use of psychotropic medication before 9/11, OR = 3.95; 95% CI 1.2-13.0) were significantly associated with PTSD symptom cluster. CONCLUSIONS: We found a rate of PTSD in Bronx students after 9/11 that was much higher than other large studies of PTSD in adolescents done before 9/11. Adolescents living in inner cities with high poverty and violence rates may be at high risk for PTSD after a terrorist attack. Students who still felt vulnerable and less safe eight months later and those with prior mental health treatment were four times more likely to have PTSD than those without such characteristics, highlighting the influence of personality and mental health on development of PTSD after a traumatic event.

(27)Cluver L, Gardner F. The psychological well-being of children orphaned by AIDS in Cape Town, South Africa. *Ann Gen Psychiatry* 2006 July;5:8.

BACKGROUND: An estimated 2 million children are parentally bereaved by AIDS in South Africa. Little is known about mental health outcomes for this group. METHODS: This study aimed to investigate mental health outcomes for urban children living in deprived settlements in Cape Town. 30 orphaned children and 30 matched controls were compared using standardised questionnaires (SDQ) on emotional and behavioural problems, peer and attention difficulties, and prosocial behaviour. The orphan group completed a modified version of a standardised questionnaire (IES-8), measuring Post-Traumatic Stress symptoms. Group differences were tested using t-tests and Pearson's chi-square. RESULTS: Both groups scored highly for peer problems, emotional problems and total scores. However, orphans were more likely to view themselves as having no good friends ($p = .002$), to have marked concentration difficulties ($p = .03$), and to report frequent somatic symptoms ($p = .05$), but were less likely to display anger through loss of temper ($p = .03$). Orphans were more likely to have constant nightmares ($p = .01$), and 73% scored above the cut-off for Post-Traumatic Stress Disorder. CONCLUSION: Findings suggest important areas for larger-scale research for parentally-bereaved children.

(28)Diemer MA, Kauffman A, Koenig N, Trahan E, Hsieh CA. Challenging racism, sexism, and social injustice: Support for urban adolescents' critical consciousness development. *Cultur Divers Ethnic Minor Psychol* 2006 July;12(3):444-60.

This mixed-model study examined the relationship between urban adolescents' perceived support for challenging racism, sexism, and social injustice from peers, family, and community members and their critical consciousness development. These relationships were examined by relating participants' qualitative perceptions of support for challenging racism, sexism, and social injustice to quantitative data obtained from Likert-type measures of the

reflection and action components of critical consciousness. Perceived support for challenging racism, sexism, and social injustice had a significant impact upon the reflection component of critical consciousness; the significance criterion was supported by effect size estimates. Support for challenging racism, sexism, and social injustice was not significantly related to the action component of critical consciousness. Participants perceived the most support for challenging racism, moderate support for challenging social injustice, and the least support for challenging sexism. Additionally, female participants perceived more support for challenging sexism than male participants. These results suggest that the informal interactions of urban adolescents play a role in shaping their critical consciousness, and hold implications for psychosocial interventions and research with marginalized populations.

(29) Boyd RC, Diamond GS, Bourjolly JN. Developing a family-based depression prevention program in urban community mental health clinics: a qualitative investigation. *Fam Process* 2006 June;45(2):187-203.

Extensive research documents that children of depressed mothers are at a significantly higher risk for developing a variety of socioemotional difficulties than children of nondepressed mothers. Yet, little prevention research has been conducted for this population, and low-income, minority, and urban families are rarely included. To address this deficit, we are developing the Protecting Families Program (PFP), a family-based multicomponent depression prevention program for mothers in treatment at urban community mental health agencies and their school-aged children. To inform intervention development and begin relationship building with the agencies, patient and staff focus groups were conducted in the participating agencies. Eighteen mothers with depression participated, and eight major themes were identified: (1) depression symptoms, (2) generational legacy, (3) parenting difficulties, (4) child problems, (5) social support, (6) stressful life events, (7) therapy and other helpful activities, and (8) desired treatment. In the focus groups with 10 mental health providers, the five major themes identified were parenting difficulties, lack of social support, life stress, current mental health practices, and intervention development. The findings support the multicomponent design of PFP, which focuses on increasing knowledge of depression, enhancing social support, and improving parenting skills. The study helped clarify many of the challenges of conducting research in a community mental health system.

(30) Houston AM, Abraham A, Huang Z, D'Angelo LJ. Knowledge, attitudes, and consequences of menstrual health in urban adolescent females. *J Pediatr Adolesc Gynecol* 2006 August;19(4):271-5.

PURPOSE: There is a lack of current information concerning the knowledge and attitudes of urban adolescents regarding menstruation. The purpose of this research was to determine: (1) The prevalence of dysmenorrhea, premenstrual symptoms and other menstrual disorders among adolescents who receive their health care at an urban adolescent health center; (2) The attitudes and expectations adolescents have relating to their menstrual period; and (3) The relationship between teens' attitudes and expectations regarding menses and actual menstrual-related morbidities such as school absenteeism. **METHODS:** A 35-item, survey was administered to postmenarcheal adolescents ages 12-21 years. Descriptive analysis of the prevalence of the menstrual disorders was completed. Chi-square testing was used to compare the prevalence of menstrual-related morbidities with the level of adolescents' expectations regarding menstruation. **RESULTS:** 91.5% of the respondents were African-American. Premenstrual syndrome (PMS) was the most prevalent reported menstrual disorder (84.3%) followed by dysmenorrhea (65%), abnormal cycle lengths (13.2%), and excessive uterine bleeding (8.6%). Only 2% of teens report receiving information about menstruation from their health care provider. Negative expectations regarding menstruation were associated with higher rates of school absenteeism and missed activities ($P = 0.0790$ and $P = 0.0297$ respectively). **CONCLUSIONS:** PMS and dysmenorrhea are prevalent medical disorders among urban adolescents. Morbidities, including school absenteeism, are higher among those with negative period expectations. Since only 2% of teens received

information regarding menstruation from their health care provider, it is imperative that health care providers increase their anticipatory guidance regarding normal menstruation. This may aid in the prompt diagnosis and treatment of menstrual disorders, and decrease their associated morbidities.

(31)Choudhary A, Moses PD, Mony P, Mathai M. Prevalence of anaemia among adolescent girls in the urban slums of Vellore, south India. *Trop Doct* 2006 July;36(3):167-9.

A community-based, cross-sectional study was conducted to determine the prevalence of anaemia among unmarried, adolescent south Indian girls in an urban slum setting. A total of 100 apparently healthy girls between the ages of 11 and 18 years were recruited. Their socioeconomic, dietary and anthropometric information was collected, and blood haemoglobin (Hb) was estimated. The prevalence of anaemia (Hb < 12 g%) was 29%. Most had mild anaemia; severe anaemia was not seen. Two-thirds of those with anaemia had low serum ferritin (<12 microg/L). Significant associations were observed between anaemia and low socioeconomic status, religion and reporting infrequent/non-consumption of meat (heme iron). Only meat consumption was related to haemoglobin by multiple regression analysis. Anaemia is a common problem among adolescent girls in this setting, though severe anaemia is rare. There is a need to improve their haemoglobin status through dietary modification along with preventive supplementation and nutrition education.

(32)Clougherty JE, Levy JI, Hynes HP, Spengler JD. A longitudinal analysis of the efficacy of environmental interventions on asthma-related quality of life and symptoms among children in urban public housing. *J Asthma* 2006 June;43(5):335-43.

In an environmental intervention study in public housing, we examined monthly Juniper Paediatric Asthma Quality of Life (QOL) Questionnaires for 51 children. Longitudinal analysis and spline models were used to identify time periods with significant improvements in QOL to inform judgments about causality. We found significant improvements in QOL, with moderate improvements before environmental interventions, increased rates of improvement immediately after, and reduced rates more than 5 months post-intervention. Effect modification analyses identified high-risk subpopulations and emphasized the importance of environmental, social, and economic conditions. Our results demonstrate the value of longitudinal techniques in evaluating the benefits of environmental interventions for asthma.

Topic D: Other Vulnerable, at Risk, or Hidden Populations

(33)Cohen CI, Magai C, Yaffee R, Huangthaisong P, Walcott-Brown L. The prevalence of phobia and its associated factors in a multiracial aging urban population. *Am J Geriatr Psychiatry* 2006 June;14(6):507-14.

OBJECTIVE: There have been few multiracial epidemiologic community-based studies of phobia in older adults. The aim of this study was to determine the prevalence of phobia and associated factors among older persons living in a northeastern urban area. **METHODS:** Using 1990 census data for Brooklyn, NY, the authors attempted to interview all persons age 55+ in randomly selected block groups. The final sample consisted of 214 whites and 860 blacks. The authors used an adaptation of George's Social Antecedent Model for examining the association of 18 individual variables and one interactive variable with the presence of a phobia. The dependent variable was derived from the Guy's/Age Concern community survey. The sample was weighted by race and gender. To control for design effects, the authors used SUDAAN for the data analysis. **RESULTS:** A total of 8.9% of the sample met criteria for a current phobia and 10.2% met phobia criteria at some time during their life. Using logistic regression analysis, the authors found six variables—higher personal income, more depressive

symptoms, poorer physical health, use of prayer as a coping strategy, use of spiritualists or their products, and not having been raised by both parents-to be significantly associated with a current phobia. CONCLUSION: The prevalence rate of phobia was comparable to rates for older adults in the urban areas of the Epidemiologic Catchment Area study suggesting that prevalence has remained stable over the past two decades. Consistent with earlier studies, there were significant associations among phobia, depressive symptoms, and physical illness. Many of the demographic and social variables, including race, that had been reported previously to be associated with phobias in younger samples were not significant in this study.

(34) Mitchell MD, Hargrove GL, Collins MH, Thompson MP, Reddick TL, Kaslow NJ. Coping variables that mediate the relation between intimate partner violence and mental health outcomes among low-income, African American women. *J Clin Psychol* 2006 August 8; [Epub ahead of print].

Coping variables that mediate the relation between intimate partner violence (IPV) and mental health outcomes among African American women were investigated. The study sample included 143 economically disadvantaged African American women ranging in age from 21 to 64 years old who were receiving services at an urban public health system. Sixty-five had experienced IPV within the past year and 78 had never experienced IPV. Results indicated that (a) the IPV status-depressive symptoms link was mediated by multiple ways of coping, spiritual well-being, and social support; (b) the IPV status-anxiety symptoms link was mediated by multiple ways of coping, social support, and ability to access resources; and (c) the IPV status-parenting stress link was mediated by multiple ways of coping, spiritual well-being, and social support. Implications of these findings for clinical practice with abused women are discussed.

(35) Kennedy AC, Bennett L. Urban adolescent mothers exposed to community, family, and partner violence: is cumulative violence exposure a barrier to school performance and participation? *J Interpers Violence* 2006 June;21(6):750-73.

Using a risk and resilience perspective, the authors assessed urban adolescent mothers' exposure to community, family, and partner violence and analyzed the relationships between cumulative violence exposure and multiple school outcomes, within the context of welfare reforms. Positive attitude toward school and social support were examined as moderators of violence exposure on school outcomes. The authors pilot tested the questionnaire with 10 participants, then surveyed 120 adolescent mothers regarding their violence exposure, school performance and participation, positive attitude toward school, and social support. Results indicate very high rates of lifetime exposure to violence; intercorrelations and regression analyses indicate that as violence exposure increases, school outcomes tend to worsen, with positive attitude toward school found to be a significant moderator of the effects of exposure to community violence on behavior problems in school. Implications for researchers, practitioners, school policies and programs, and welfare policies and programs conclude the article.

(36) Parish WL, Das A, Laumann EO. Sexual Harassment of Women in Urban China. *Arch Sex Behav* 2006 August 23; [Epub ahead of print].

Using data from the Chinese Health and Family Life survey, this study analyzed the prevalence of and risk factors for sexual harassment in China in the year 2000. It was the first study to use a general population sample to examine all types of harassment in an Asian country. The dataset was a stratified probability sample with 3,821 participants, and was nationally representative (apart from Hong Kong and Tibet) of China's adult population aged 20-64. In total, 12.5% of all women and 15.1% of urban women reported some form of harassment in the past year. Among urban women age 20-45, most cross-sex harassment was not from supervisors or superiors (1.4%) but from coworkers and other peers (7.0%),

strangers (4.6%), dates and boyfriends (3.6%), and others (2.6%). Multivariate analysis of risk factors for cross-sex harassment suggested that, despite its predominance in the Western literature on sexual harassment, the power differentials approach, focusing on male-female power differentials in patriarchal societies, was of modest utility. The results were more consistent with a more comprehensive routine activities approach borrowed from criminology, which emphasizes situational opportunity, perceived benefit to the harasser, and reduced costs for the harasser. The most striking result from the data represents the area receiving the least attention in the West, namely, the perpetrator's perception of "benefit," deriving from the victim's inadvertent "signaling."

(37)Villamor E, Msamanga G, Urassa W et al. Trends in obesity, underweight, and wasting among women attending prenatal clinics in urban Tanzania, 1995-2004. *Am J Clin Nutr* 2006 June;83(6):1387-94.

BACKGROUND: Many developing countries are currently burdened by both undernutrition and increasing rates of overweight and obesity. Scarce data are available from population studies on the recent trends and current epidemiology of obesity in African settings. OBJECTIVES: The objectives were to evaluate changes in the prevalence of obesity, underweight, and wasting in women of reproductive age from Dar es Salaam, Tanzania, during the past 10 y and to identify contemporary sociodemographic correlates of these indicators. DESIGN: We estimated the prevalence of obesity [body mass index (BMI; in kg/m²) > or = 30], underweight (BMI < 18.5), and wasting (midupper arm circumference < 22 cm) in 73 689 women aged 14-52 y who attended antenatal care clinics in the city of Dar es Salaam, Tanzania, between 1995 and 2004. RESULTS: The prevalence of obesity rose steadily and progressively from 3.6% in 1995 to 9.1% in 2004 [adjusted prevalence ratio (PR): 1.97; 95% CI: 1.66, 2.33; P for trend for year < 0.0001]. Underweight showed only a modest decline from 3.3% in 1995 to 2.6% in 2004 (adjusted PR: 0.91; 95% CI: 0.75, 1.10; P for trend for year = 0.003), whereas no change was observed in the prevalence of wasting. In the most recent years (2003 and 2004), obesity was positively associated with age, parity, and socioeconomic status and inversely with HIV infection. Underweight was inversely related to socioeconomic status and positively to HIV status. CONCLUSION: The recent, rapid, and large increase in the prevalence of obesity in women represents a new competing public health priority in urban Tanzania, where underweight and wasting have not decreased substantially.

(38)Siervo M, Grey P, Nyan OA, Prentice AM. A pilot study on body image, attractiveness and body size in Gambians living in an urban community. *Eat Weight Disord* 2006 June;11(2):100-9.

OBJECTIVE: We investigated the attitudinal and perceptual components of body image and its link with body mass index (BMI) in a sample of urban Gambians. We also looked at cross-cultural differences in body image and views on attractiveness between Gambians and Americans. METHODS: Four groups of 50 subjects were assessed: men 14- 25y (YM); women 14-25y (YW); men 35-50y (OM); women 35-50y (OW). Socio-economic status, education, healthy lifestyle and western influences were investigated. Height and weight were measured. Body dissatisfaction was assessed with the body dissatisfaction scale of the Eating Disorder Inventory. Perceptions of body image and attractiveness were assessed using the Body Image Assessment for Obesity (BIA-O) and Figure Rating Scale (FRS). RESULTS: Different generations of Gambians had very different perceptions and attitudes towards obesity. Current body size was realistically perceived and largely well tolerated. Older women had a higher body discrepancy (current minus ideal body size) than other groups (p<0.001). Regression analysis showed they were not worried about their body size until they were overweight (BMI=27.8 kg/m²), whilst OM, YM and YW started to be concerned at a BMI respectively of 22.9, 19.8 and 21.5 kg/m². A cross-cultural comparison using published data on FRS showed that Gambians were more obesity tolerant than black and white Americans. DISCUSSION: The Gambia is a country in the early stage of

demographic transitions but in urban areas there is an increase in obesity prevalence. Inherent tensions between the preservation of cultural values and traditional habits, and raising awareness of the risks of obesity, may limit health interventions to prevent weight gain.

(39)Kizuki M, Takano T, Nakamura K et al. Social course patterns of urban dwellers with tuberculosis under fragile living conditions in Tokyo, Japan. *J Epidemiol* 2006 July;16(4):167-75.

BACKGROUND: People under fragile-living conditions show a high rate of interruption of tuberculosis treatment. We examined the social courses of fragile-living urban dwellers with tuberculosis without customary and regular access to a conventional residence and investigated the factors associated with interruption of treatment. **METHODS:** One hundred and nineteen tuberculosis patients without customary and regular access to a conventional residence who were discharged from a hospital with the largest number of tuberculosis beds in Tokyo between January 1998 and October 2000 were followed up. The associations between demographic, social, and clinical characteristics and interruption of treatment were examined. **RESULTS:** The subjects (mean age, 51.2 years) were followed up for a median of 342 days. The percentage of cases of interruption of treatment during inpatient care among patients with alcohol problems (56%) was significantly higher than that among patients without such problems (11%). The proportion of cases of interruption of treatment during outpatient care among patients who were literally homeless before admission (40%) was significantly higher than that in others (5%), and that among those who used transient hostels after the initial inpatient treatment (55%) was significantly higher than that in others (4%). The prevalence of drug resistance was higher in cases with than without a history of tuberculosis treatment ($P<0.05$). **CONCLUSIONS:** Factors associated with interruption of tuberculosis treatment in patients under fragile-living conditions were identified. Interruption during inpatient care was significantly associated with alcohol problems, and interruption during outpatient care was significantly associated with the use of transient hostels.

(40)Lofy KH, McElroy PD, Lake L et al. Outbreak of tuberculosis in a homeless population involving multiple sites of transmission. *Int J Tuberc Lung Dis* 2006 June;10(6):683-9.

SETTING: During 2002-2003, a large outbreak of tuberculosis (TB) occurred among persons using multiple homeless facilities in King County, Washington. **OBJECTIVE:** To control the transmission of TB in multiple settings. **DESIGN:** In 2002, contacts exposed to patients in homeless facilities were screened using tuberculin skin tests (TSTs) and symptom review. Based on these screening results, sites of transmission were identified and prioritised, and exposed cohorts at these sites were offered intensive screening tests in 2003 (e.g., symptom review, TST, chest radiograph [CXR], sputum examination and culture). Mycobacterium tuberculosis isolates from patients were genotyped using PCR-based methods to identify outbreak-associated patients quickly. **RESULTS:** During 2002-2003, 48 (15%) of 313 patients diagnosed in King County were outbreak-associated; 47 culture-positive patients had isolates that matched the outbreak strain by genotyping. Three facilities visited by >12 patients in 2002 had a higher prevalence of TST positive results (approximately 30%) among clients compared with the background rate (7%) in the homeless community. Screening contacts with one sputum culture was as sensitive as CXR in detecting TB disease (77% vs. 62%, respectively). **CONCLUSIONS:** A comprehensive, resource-intensive approach likely helped to control transmission. This outbreak highlights the vulnerability of homeless populations and the need to maintain robust TB programs in urban settings.

(41)Reback CJ, Kamien JB, Amass L. Characteristics and HIV risk behaviors of homeless, substance-using men who have sex with men. *Addict Behav* 2006 July 27; [Epub ahead of print].

During January and February 2003, 20 non-treatment seeking homeless, substance-using MSM accessing community-based prevention services in West Hollywood, California were assessed to characterize demographics, addiction and psychiatric severity using structured and semi-structured clinical interviews, and high-risk drug and sexual behavior. Participants averaged 37 years old, were mostly Caucasian/white (65%) and most identified as bisexual (58%) or gay (37%). Self-reported HIV seroprevalence was 21%. Most (53%) exchanged sex for money and/or drugs within the previous 30 days. All were diagnosed with current DSM-IV Substance Dependence Disorders, primarily alcohol (62%), amphetamine (57%), cocaine (52%), and marijuana (38%). Participants reported many (35.7) positive psychiatric symptoms on the Brief Symptom Inventory and averaged moderate Beck Depression Inventory scores (19.1). Most (75%) met criteria for Mood Disorder, 33% for Major Depressive Disorder, 43% for Antisocial Personality Disorder and averaged low (48.5) Global Assessment of Functioning scores. While the small convenience sample limits generalizability of the findings, these data provide an opportunity to gain insight into this at-risk population and, thereby, assess appropriate intervention strategies.

(42)Harawa NT, Williams JK, Ramamurthi HC, Bingham TA. Perceptions towards condom use, sexual activity, and HIV disclosure among HIV-positive African American men who have sex with men: implications for heterosexual transmission. *J Urban Health* 2006 July;83(4):682-94.

Disproportionately high HIV/AIDS rates and frequent non-gay identification (NGI) among African American men who have sex with men or with both men and women (MSM/W) highlight the importance of understanding how HIV-positive African American MSM/W perceive safer sex, experience living with HIV, and decide to disclose their HIV status. Thirty predominately seropositive and non-gay identifying African American MSM/W in Los Angeles participated in three semi-structured focus group interviews, and a constant comparison method was used to analyze responses regarding condom use, sexual activity after an HIV diagnosis, and HIV serostatus disclosure. Condom use themes included its protective role against disease and pregnancy, acceptability concerns pertaining to aesthetic factors and effectiveness, and situational influences such as exchange sex, substance use, and suspicions from female partners. Themes regarding the impact of HIV on sexual activity included rejection, decreased partner seeking, and isolation. Serostatus disclosure themes included disclosure to selective partners and personal responsibility. Comprehensive HIV risk-reduction strategies that build social support networks, condom self-efficacy, communication skills, and a sense of collective responsibility among NGI African American MSM/W while addressing HIV stigma in the African American community as a whole are suggested.

(43)Raymond HF, Chen S, Truong HH et al. Trends in Sexually Transmitted Diseases, Sexual Risk Behavior, and HIV Infection Among Asian/Pacific Islander Men Who Have Sex With Men, San Francisco, 1999-2005. *Sex Transm Dis* 2006 August 28; [Epub ahead of print].

HIV risk behavior indicator trend data from 1999 through 2002 suggested rising levels of risk among Asian/Pacific Islander men who have sex with men (API-MSM) in San Francisco. Additional data through 2005 show a continuing increase in male rectal gonorrhoea but a drop in early syphilis. Although overall unprotected anal intercourse remained high, potentially serodiscordant unprotected anal intercourse has declined since 2001. Moreover, having multiple sex partners decreased, whereas HIV testing increased. Viewed as a whole, current trends suggest that recent prevention activities have been successful for this population.

(44)He Q, Wang Y, Lin P et al. Potential Bridges for HIV Infection to Men Who Have Sex With Men in Guangzhou, China. *AIDS Behav* 2006 July;10(4 Suppl):17-23.

To assess the potential for HIV acquisition among men who have sex with men (MSM) in Guangzhou, China, we conducted a cross-sectional, anonymous, face-to-face survey of MSM in the metropolitan area of Guangzhou, China. As a pilot recruitment for a cohort study, participants were recruited by convenience sampling through newspaper and television advertising, website information, and respondent referral. Blood samples were tested for HIV, hepatitis B (HBV), hepatitis C (HCV), and syphilis. Client-centered HIV and STD counseling was provided. A total of 201 MSM were interviewed and 200 blood samples were tested. The prevalence of HIV antibody was 0% (97.5% CI 0-1.8%); 17.5% of MSM were HBV surface antigen positive; 1.0% had HCV antibodies; 10.5% had antibodies to syphilis. Syphilis seropositivity was associated with sex with a foreign MSM in the last six months and 10.4% reported sex with a foreign MSM overall. The majority (54.7%) reported unprotected anal sex with other men. Nearly one-third (31.8%) had regular female partners; 25.9% were currently married to a woman; 6% had casual female partners; 4.5% had sex with a female sex worker; 4.5% had sex with a male sex worker; and 12.9% had unprotected vaginal sex and unprotected anal sex with a man in the past six months. Only one MSM reported injection drug use (0.5%). The currently low prevalence of HIV but high level of unprotected anal sex, high prevalence of syphilis infection, and sexual networks that include foreign MSM point to a transient window for HIV prevention among MSM in Guangzhou. We recognize challenges to recruiting a representative sample of MSM and retaining them in longitudinal cohort studies.

(45) Purcell DW, Mizuno Y, Metsch LR et al. Unprotected sexual behavior among heterosexual HIV-positive injection drug using men: associations by partner type and partner serostatus. *J Urban Health* 2006 July;83(4):656-68.

Few studies have examined sexual risk behaviors of HIV-positive, heterosexual, injection drug using (IDU) men. We investigated such behaviors and associations with risk among sexually active, HIV-positive IDU men who reported only female sex partners in the 3 months prior to baseline interview. We examined associations separately for four non-exclusive groups of men by crossing partner type (main or casual) and partner serostatus (HIV-positive or HIV-negative/unknown). Of 732 male participants, 469 (64%) were sexually active with only female partners. Of these 469 men, 155 (33%) reported sex with HIV-positive main partners, 127 (27%) with HIV-negative or unknown serostatus main partners, 145 (31%) with HIV-positive casual partners, and 192 (41%) with HIV-negative/unknown serostatus casual partners. Significant multivariate associations for unprotected sex with HIV-negative or unknown serostatus main partners were less self-efficacy to use condoms, weaker partner norms supporting condoms, and more negative condom beliefs. Similar correlates were found for unprotected sex with HIV-positive main and casual partners. In addition, alcohol or drug use during sex was a significant correlate of unprotected sex with HIV-positive main partners, while depression was significant for HIV-positive casual partners. For unprotected sex with HIV-negative/unknown status casual partners, self-efficacy for condom use, sex trade, and education were significant multivariate correlates. A combination of broad and tailored intervention strategies based on the relationship pattern of men's lives may provide the most benefit for reducing unprotected sex with female partners.

(46) Shah NG, Galai N, Celentano DD, Vlahov D, Strathdee SA. Longitudinal predictors of injection cessation and subsequent relapse among a cohort of injection drug users in Baltimore, MD, 1988-2000. *Drug Alcohol Depend* 2006 June 28;83(2):147-56.

OBJECTIVE: To determine predictors of injection drug use cessation and subsequent relapse among a cohort of injection drug users (IDUs). **METHODS:** IDUs in Baltimore, MD were recruited through community outreach in 1988-1989. Among IDUs with at least three follow-up visits, parametric survival models for time to injection cessation (≥ 6 months) and subsequent relapse were constructed. **RESULTS:** Of 1327 IDUs, 94.8% were African American, 77.2% were male, median age was 34 years, and 37.7% were HIV-infected. Among 936 (70.5%) subjects who ceased injection, median time from baseline to cessation

was 4.0 years. Three-quarters subsequently resumed injection drug use, among whom median time to relapse was 1.0 year. Factors independently associated with a shorter time to cessation were: age <30 years, stable housing, HIV seropositivity, methadone maintenance treatment, detoxification, abstinence from cigarettes and alcohol, injecting less than daily, not injecting heroin and cocaine together, and not having an IDU sex partner. Factors independently associated with shorter time to injection relapse were male gender, homelessness, HIV seropositivity, use of alcohol, cigarettes, non-injection cocaine, sexual abstinence and having a longer time to the first cessation. CONCLUSIONS: This study provides strong support for targeting cessation efforts among young IDUs and severely dependent, unstably housed, and HIV-infected individuals.