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Urban Health Literature Review

May-June 2007

Topic A: Built Environment

Topic B: Neighborhood and Social Environment Effects

Topic C: Adolescents and Children

Topic D: Women's Health

Topic E: HIV Risk and Prevention

Topic F: Correctional Health

Topic A: Built Environment

1. **Seto EY, Holt A, Rivard T, Bhatia R. Spatial distribution of traffic induced noise exposures in a US city: an analytic tool for assessing the health impacts of urban planning decisions. *Int J Health Geogr* . June 2007 21;6:24.:24.**

BACKGROUND: Vehicle traffic is the major source of noise in urban environments, which in turn has multiple impacts on health. In this paper we investigate the spatial distribution of community noise exposures and annoyance. Traffic data from the City of San Francisco were used to model noise exposure by neighborhood and road type. Remote sensing data were used in the model to estimate neighborhood-specific percentages of cars, trucks, and buses on arterial versus non-arterial streets. The model was validated on 235 streets. Finally, an exposure-response relationship was used to predict the prevalence of high annoyance for different neighborhoods. **RESULTS:** Urban noise was found to increase 6.7 dB ($p < 0.001$) with 10-fold increased street traffic, with important contributors to noise being bus and heavy truck traffic. Living along arterial streets also increased risk of annoyance by 40%. The relative risk of annoyance in one of the City's fastest growing neighborhoods, the South of Market Area, was found to be 2.1 times that of lowest noise neighborhood. However, higher densities of exposed individuals were found in Chinatown and Downtown/Civic Center. Overall, we estimated that 17% of the city's population was at risk of high annoyance from traffic noise. **CONCLUSION:** The risk of annoyance from urban noise is large, and varies considerably between neighborhoods. Such risk should be considered in urban areas undergoing rapid growth. We present a relatively simple GIS-based noise model that may be used for routinely evaluating the health impacts of environmental noise.

2. **Pendola R, Gen S. BMI, auto use, and the urban environment in San Francisco. *Health Place*. June 2007;13(2):551-6.**

The epidemic of overweight and obesity has sparked interest in urban planning circles. Many believe the built environment directly influences physical health, and recent empirical evidence supports this notion. Cross-sectional survey data was collected from a

sample of San Francisco residents (n=670) in the summer of 2005. Body mass index (BMI) served as the dependent variable. Independent variables included population density and auto use. Results indicate an inverse relationship between density and auto use as well as higher BMI scores for respondents reporting high levels of auto use for the work/school commute and trips to the grocery store.

- 3. Papas MA, Alberg AJ, Ewing R, Helzlouer KJ, Gary TL, Klassen AC. The built environment and obesity. *Epidemiol Rev.* 2007;29:129-43. Epub@2007 May 28.:129-43.**

Obesity results from a complex interaction between diet, physical activity, and the environment. The built environment encompasses a range of physical and social elements that make up the structure of a community and may influence obesity. This review summarizes existing empirical research relating the built environment to obesity. The Medline, PsychInfo, and Web of Science databases were searched using the keywords "obesity" or "overweight" and "neighborhood" or "built environment" or "environment." The search was restricted to English-language articles conducted in human populations between 1966 and 2007. To meet inclusion criteria, articles had to 1) have a direct measure of body weight and 2) have an objective measure of the built environment. A total of 1,506 abstracts were obtained, and 20 articles met the inclusion criteria. Most articles (84%) reported a statistically significant positive association between some aspect of the built environment and obesity. Several methodological issues were of concern, including the inconsistency of measurements of the built environment across studies, the cross-sectional design of most investigations, and the focus on aspects of either diet or physical activity but not both. Given the importance of the physical and social contexts of individual behavior and the limited success of individual-based interventions in long-term obesity prevention, more research on the impact of the built environment on obesity is needed.

- 4. Boehmer TK, Hoehner CM, Deshpande AD, Brennan Ramirez LK, Brownson RC. Perceived and observed neighborhood indicators of obesity among urban adults. *Int J Obes (Lond).* June 2007;31(6):968-77.**

OBJECTIVE: The global obesity epidemic has been partially attributed to modern environments that encourage inactivity and overeating, yet few studies have examined specific features of the physical neighborhood environment that influence obesity. Using two different measurement methods, this study sought to identify and compare perceived and observed neighborhood indicators of obesity and a high-risk profile of being obese and inactive. **DESIGN:** Cross-sectional telephone surveys (perceived) and street-scale environmental audits (observed) were conducted concurrently in two diverse US cities to assess recreational facility access, land use, transportation infrastructure and aesthetics. **SUBJECTS:** A total of 1032 randomly selected urban residents (20% obese, 32% black, 65% female). **ANALYSIS:** Bivariate and multivariate logistic regression analyses were conducted to estimate the association (adjusted prevalence odds ratio (aOR)) between the primary outcome (obese vs normal weight) and perceived and observed environmental indicators, controlling for demographic variables. **RESULTS:** Being obese was significantly associated with perceived indicators of no nearby nonresidential destinations

(aOR=2.2), absence of sidewalks (aOR=2.2), unpleasant community (aOR=3.1) and lack of interesting sites (aOR=4.8) and observed indicators of poor sidewalk quality (aOR=2.1), physical disorder (aOR=4.0) and presence of garbage (aOR=3.7). Perceived and observed indicators of land use and aesthetics were the most robust neighborhood correlates of obesity in multivariate analyses. **CONCLUSIONS:** The findings contribute substantially to the growing evidence base of community-level correlates of obesity and suggest salient environmental and policy intervention strategies that may reduce population-level obesity prevalence. Continued use of both measurement methods is recommended to clarify inconsistent associations across perceived and observed indicators within the same domain.

5. Moudon AV, Lee C, Cheadle AD et al. Attributes of environments supporting walking. *Am J Health Promot.* May 2007;21(5):448-59.

PURPOSE: This study established a framework to audit environments supporting walking in neighborhoods. **DESIGN:** Cross-sectional analysis using a telephone survey and 200 objective environmental variables. **SETTING.** Urbanized King County, WA. **SUBJECTS.** 608 randomly sampled adults. **Measures.** Walking measures constructed from survey questions; objective environmental measures taken from parcel-level databases in Geographic Information Systems. **ANALYSIS:** Multinomial models estimated the odds of people engaging in moderate walking (<149 min/wk) and in walking sufficiently to meet recommendations for health (150+ min/ wk), relative to not walking" and in walking sufficiently, relative to walking moderately. A base model consisted of survey variables, and final models incorporated both survey and environmental variables. **RESULTS.** Survey variables strongly associated with walking sufficiently to enhance health included household income, not having difficulty walking, using transit, perceiving social support for walking, walking outside of the neighborhood, and having a dog ($p < .01$). The models isolated 14 environmental variables associated with walking sufficiently (pseudo R^2 up to 0.46). Measures of distance to neighborhood destinations dominated the results: shorter distances to grocery stores/markets, restaurants, and retail stores, but longer distances to offices or mixed-use buildings ($p < .01$ or $.05$). The density of the respondent's parcel was also strongly associated with walking sufficiently ($p < .01$). **Conclusions.** The study offered valid environmental measures of neighborhood walkability.

6. Cohen DA, Inagami S, Finch B. The built environment and collective efficacy. *Health Place.* June 2007 16; [Epub ahead of print].

Collective efficacy, i.e., perception of mutual trust and willingness to help each other, is a measure of neighborhood social capital and has been associated with positive health outcomes including lower rates of assaults, homicide, premature mortality, and asthma. Collective efficacy is frequently considered a "cause", but we hypothesized that environmental features might be the foundation for or the etiology of personal reports of neighborhood collective efficacy. We analyzed data from the Los Angeles Family and Neighborhood Study (LAFANS) together with geographical data from Los Angeles County to determine which social and environmental features were associated with personal reports of collective efficacy, including presence of parks, alcohol outlets, elementary schools and fast food outlets. We used multi-level modeling controlling for

age, education, annual family income, sex, marital status, employment and race/ethnicity at the individual level. At the tract level, we controlled for tract-level disadvantage, the number of off-sale alcohol outlets per roadway mile, the number of parks and the number of fast food outlets within the tract and within 1/2 mile of the tract's boundaries. We found that parks were independently and positively associated with collective efficacy; alcohol outlets were negatively associated with collective efficacy only when tract-level disadvantage was not included in the model. Fast food outlets and elementary schools were not linearly related to collective efficacy. Certain environmental features may set the stage for neighborhood social interactions, thus serving as a foundation for underlying health and well-being. Altering these environmental features may have greater than expected impact on health.

7. Schootman M, Andresen EM, Wolinsky FD, Malmstrom TK, Miller JP, Miller DK. Neighbourhood environment and the incidence of depressive symptoms among middle-aged African Americans. *J Epidemiol Community Health*. June 2007;61(6):527-32.

AIM: To investigate the association between attributes of subject location and incidence of clinically relevant levels of depressive symptoms (CRLDS), and to investigate whether an association remained after adjusting for individual-level factors using data from the population-based African American Health Study. METHODS: An 11-item depression scale (Center for Epidemiologic Studies Depression scale) was obtained at baseline and 3 years later through in-home evaluations. Census tract and block group deprivation indices were obtained from the 2000 census. The external appearance of the block where the subject lived was rated during sample enumeration, and the interior and exterior of the subject's dwelling were observed during the initial in-home interview. RESULTS: Of 998 subjects at baseline, 21.1% had CRLDS. Although 12.7% of the 672 people without CRLDS at baseline developed them by the 3-year follow-up, univariate and propensity-adjusted analyses revealed no association between the subject's location and the incidence of CRLDS. Sensitivity analyses confirmed the robustness of the findings. CONCLUSION: Despite other studies showing independent effects of neighbourhood characteristics on the prevalence of CRLDS, attributes of subject location are not independent contributors to the incidence of CRLDS in middle-aged urban African Americans.

8. Araya R, Montgomery A, Rojas G et al. Common mental disorders and the built environment in Santiago, Chile. *Br J Psychiatry*. May 2007;190:394-401.:394-401.

BACKGROUND: There is growing research interest in the influence of the built environment on mental disorders. AIMS: To estimate the variation in the prevalence of common mental disorders attributable to individuals and the built environment of geographical sectors where they live. METHOD: A sample of 3870 adults (response rate 90%) clustered in 248 geographical sectors participated in a household cross-sectional survey in Santiago, Chile. Independently rated contextual measures of the built environment were obtained. The Clinical Interview Schedule was used to estimate the prevalence of common mental disorders. RESULTS: There was a significant association between the quality of the built environment of small geographical sectors and the

presence of common mental disorders among its residents. The better the quality of the built environment, the lower the scores for psychiatric symptoms; however, only a small proportion of the variation in common mental disorder existed at sector level, after adjusting for individual factors. **CONCLUSIONS:** Findings from our study, using a contextual assessment of the quality of the built environment and multilevel modelling in the analysis, suggest these associations may be more marked in non-Western settings with more homogeneous geographical sectors.

- 9. Wood L, Shannon T, Bulsara M, Pikora T, McCormack G, Giles-Corti B. The anatomy of the safe and social suburb: An exploratory study of the built environment, social capital and residents' perceptions of safety. *Health Place*. May 2007 8; [Epub ahead of print].**

This study explored the relationship between social capital and aspects of the built environment, focusing in particular on the walkability of suburbs as determined by street network design and the mix of land uses. We measured social capital and feelings of personal safety in 335 residents of three suburbs in metropolitan Perth, WA, and collected objective and perceived data on the built environment. After adjustment for demographic factors, the built environment was found to have a significant but small effect on social capital and feelings of safety, particularly in relation to the number and perceived adequacy of destinations. A high level of neighbourhood upkeep was associated with both higher social capital and feelings of safety.

Topic B: Neighborhood and Social Environment Effects

- 10. Brown AF, Ang A, Pebley AR. The relationship between neighborhood characteristics and self-rated health for adults with chronic conditions. *Am J Public Health*. May 2007;97(5):926-32.**

OBJECTIVES: We sought to determine whether the association between neighborhood characteristics and health differs for people with and without a chronic condition. **METHODS:** We analyzed data from 2536 adults from the Los Angeles Family and Neighborhood Survey and evaluated the relationship between the presence of a chronic condition at the individual level, neighborhood socioeconomic status (SES), and self-rated health. We constructed multilevel models to evaluate the relationship between the neighborhood SES index and self-rated health for people with and without chronic conditions, after adjustment for other individual characteristics. **RESULTS:** Having a chronic condition was associated with substantially poorer self-rated health among participants in a deprived area than among those in a more advantaged area. **CONCLUSIONS:** Residence in a disadvantaged neighborhood may be associated with barriers to the management of a chronic condition. Further work is needed to identify the specific characteristics of disadvantaged areas associated with poorer self-rated health for adults with chronic conditions.

- 11. Turrell G, Sanders AE, Slade GD, Spencer AJ, Marcenes W. The independent contribution of neighborhood disadvantage and individual-level socioeconomic**

position to self-reported oral health: a multilevel analysis. *Community Dent Oral Epidemiol.* June 2007;35(3):195-206.

OBJECTIVES: To examine the association between neighborhood disadvantage and individual-level socioeconomic position (SEP) and self-reported oral health. **METHODS:** A population-based cross-sectional study conducted in 2003 among males and females aged 43-57 years. The sample comprised 2915 individuals and 60 neighborhoods and was selected using a stratified two-stage cluster design. Data were collected using a mail survey (69.4% response rate). Neighborhood disadvantage was measured using a census-based composite index, and individual-level SEP was measured using education and household income. Oral health was indicated by self-reports of the impact of oral conditions on quality of life (0 = none or minor, 1 = severe), self-rated oral health (0 = excellent-good, 1 = fair/poor) and missing teeth (measured as a quantitative outcome). Data were analyzed using multilevel modeling. **RESULTS:** After adjusting for age, sex, education, and household income, residents of socioeconomically disadvantaged neighborhoods were significantly more likely than those in more advantaged neighborhoods to indicate negative impacts of oral conditions on quality of life, to assess their oral health as fair or poor, and to report greater tooth loss. In addition, respondents with low levels of education and those from a low income household reported poorer oral health for each outcome independent of neighborhood disadvantage. **CONCLUSIONS:** The socioeconomic characteristics of neighborhoods are important for oral health over and above the socioeconomic characteristics of the people living in those neighborhoods. Policies and interventions to improve population oral health should be directed at the social, physical and infrastructural characteristics of places as well as individuals (i.e. the traditional target of intervention efforts).

12. Cagney KA, Browning CR, Wallace DM. The Latino paradox in neighborhood context: the case of asthma and other respiratory conditions. *Am J Public Health.* May 2007;97(5):919-25.

OBJECTIVES: Evidence indicates that foreign-born Latinos have a health advantage compared with US-born persons of the same socioeconomic status. An explanation for this paradox has remained elusive. We examined the extent to which this paradox exists for the prevalence of asthma and other respiratory conditions. We then explored the role of neighborhood social context in understanding any observed advantage. We invoked theories of social organization, collective efficacy, and the urban ethnic enclave. **METHODS:** We combined data from the Project on Human Development in Chicago Neighborhoods Community Survey with 2 other data sources and used hierarchical generalized linear modeling techniques. **RESULTS:** We found a distinctly graded effect for asthma and other breathing problems among foreign-born Latinos, depending on community composition. Foreign-born Latinos embedded in a neighborhood that had a high percentage of foreign-born residents experienced a significantly lower prevalence of asthma and other breathing problems; those in communities that had a low percentage of foreign-born residents had the highest prevalence overall (even when compared with African Americans). **CONCLUSIONS:** Foreign-born Latinos have a respiratory health advantage only in enclave-like settings. Contexts such as these may provide the cohesiveness critical for effective prevention.

13. 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*. June 2007;13(2):569-75.

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.

14. Curtis A, Mills JW, Leitner M. Katrina and vulnerability: the geography of stress. *J Health Care Poor Underserved*. May 2007;18(2):315-30.

The immediate aftermath of Katrina focused the world's attention on the vulnerability of the urban poor and racial/ethnic minority groups in New Orleans. This vulnerability can be viewed in terms of site, the proximity of a neighborhood to a hazard, and situation, the social context of that neighborhood. Vulnerabilities, associated with demographic characteristics such as being poor, being a member of a racial/ethnic minority group, and being female, will strengthen the force of a disaster. This paper uses a site and situation approach to show how maps of the five main sources of disaster-related stress in New Orleans can be used to predict where counseling resources should be targeted.

15. Morland K, Filomena S. Disparities in the availability of fruits and vegetables between racially segregated urban neighbourhoods. *Public Health Nutr*. June 2007 21;:1-9.:1-9.

OBJECTIVE: Public health professionals continue to see the benefits of fruit and vegetable consumption on population health. While studies that evaluate the availability of produce are sparse in the medical literature, disparities in availability may explain the disproportional intake of produce for some people. Therefore, the purpose of this study was to evaluate the availability and variety of produce located in two racially and economically diverse urban neighbourhoods. **DESIGN:** A cross-sectional study was conducted in which 50% of the supermarkets, small grocery stores, delicatessens, and fruit and vegetable markets located in specific neighbourhoods were randomly sampled and surveyed between September 2004 and July 2005. Food stores were evaluated for the availability of 20 types of fresh fruits and 19 types of fresh vegetables, as well as their varieties and whether they were canned, frozen or previously prepared. 2000 US Census information was used to determine characteristics of the geo-coded census tracts where the food stores were located. **SETTING:** Brooklyn, New York. **RESULTS:** A supermarket was located in approximately every third census tract in predominantly white areas

(prevalence = 0.33) and every fourth census tract in racially mixed areas (prevalence = 0.27). There were no supermarkets located in the predominantly black areas. With the exception of bananas, potatoes, okra and yucca, a lower proportion of predominantly black area stores carried fresh produce, while supermarkets carried the largest variety of produce types. Canned and frozen fruits and vegetables were found in the majority of stores, whereas prepared and organic produce was limited to predominantly white area stores. **CONCLUSIONS:** These data demonstrate that the availability and variety of fresh produce is associated with neighbourhood racial composition and may be a factor contributing to differences in intake among residents.

16. Wakefield S, Yeudall F, Taron C, Reynolds J, Skinner A. Growing urban health: community gardening in South-East Toronto. *Health Promot Int.* June 2007;22(2):92-101.

This article describes results from an investigation of the health impacts of community gardening, using Toronto, Ontario as a case study. According to community members and local service organizations, these gardens have a number of positive health benefits. However, few studies have explicitly focused on the health impacts of community gardens, and many of those did not ask community gardeners directly about their experiences in community gardening. This article sets out to fill this gap by describing the results of a community-based research project that collected data on the perceived health impacts of community gardening through participant observation, focus groups and in-depth interviews. Results suggest that community gardens were perceived by gardeners to provide numerous health benefits, including improved access to food, improved nutrition, increased physical activity and improved mental health. Community gardens were also seen to promote social health and community cohesion. These benefits were set against a backdrop of insecure land tenure and access, bureaucratic resistance, concerns about soil contamination and a lack of awareness and understanding by community members and decision-makers. Results also highlight the need for ongoing resources to support gardens in these many roles.

17. Wallace R, Wallace D, Ahern J, Galea S. A failure of resilience: estimating response of New York City's public health ecosystem to sudden disaster. *Health Place.* June 2007;13(2):545-50.

Adapting methodology from resilience theory in ecology, we develop an empirical model of the response of the New York City public health ecosystem to sudden disaster. Contrary to cultural expectation, 'good' and 'bad' neighborhoods-starkly differentiated by public health status reflecting longstanding economic and racial segregation-respond similarly to challenge. This suggests that the difference in health between neighborhoods is primarily predicated on the extent to which they have been, and continue to be, exposed to differing patterns of stressors and affordances, rather than to any difference in underlying socio-economic vulnerability. Paradoxically, then, these urban neighborhoods constitute a single, highly interdependent, health ecosystem, despite substantial socioeconomic and racial segregation.

Topic C: Adolescents and Children

- 18. dosReis S, Mychailyszyn MP, Myers M, Riley AW. Coming to terms with ADHD: how urban African-American families come to seek care for their children. *Psychiatr Serv.* May 2007;58(5):636-41.**

OBJECTIVE: This study investigated how parents' interpretations of their child's disruptive or inattentive behaviors led them to seek medical care that resulted in a diagnosis of attention-deficit hyperactivity disorder (ADHD). **METHODS:** Qualitative, semistructured telephone interviews were conducted with parents of children who had been newly diagnosed as having ADHD (96% of the children were African American). The 26 participants were recruited from primary care, developmental and behavioral, and specialty mental health pediatric clinics affiliated with a large, urban teaching hospital. The analysis followed a grounded theory approach. **RESULTS:** By the time that parents sought treatment for their child's ADHD, they had been through an extensive process to pinpoint their child's problems. Parents' conceptualizations emerged as they described their child's behavior, explained the situation, described how ADHD affected their children, and explained how they sought answers. Their reactions to the behavior and visions they had for their child's future reflected their motivation to manage the situation. Parents' conceptualization and management of the behaviors described the process of coming to terms with their child's ADHD and the need for care. Four distinct patterns describing this process emerged from the analysis: immediate resolution, pragmatic management, attributional ambivalence, and coerced conformance. **CONCLUSIONS:** It is likely that clinicians' awareness of the different approaches by which families come to the decision to seek care for their child's ADHD will allow clinicians to provide more responsive care and better tailor interventions to improve therapeutic outcomes for children receiving mental health treatments.

- 19. Jones CA, Clement LT, Morpew T et al. Achieving and maintaining asthma control in an urban pediatric disease management program: the Breathmobile Program. *J Allergy Clin Immunol.* June 2007;119(6):1445-53.**

BACKGROUND: National guidelines suggest that, with appropriate care, most patients can control their asthma. The probabilities of children achieving and maintaining control with ongoing care are unknown. **OBJECTIVE:** We sought to evaluate the degree to which children in a lower socioeconomic urban setting achieve and maintain control of asthma with regular participation in a disease management program that provides guideline-based care. **METHODS:** Interdisciplinary teams of asthma specialists use mobile clinics to offer ongoing care at schools and county clinics. A guideline-derived construct of asthma control is recorded at each visit. **RESULTS:** Two thousand one hundred eighty-five enrollees were eligible to evaluate the time to first achieve control, and 1591 patients were eligible to evaluate subsequent control maintenance. Depending on severity, 70% to 87% of patients with persistent asthma achieved control by visit 3, and 89% to 98% achieved control by visit 6. Subsequent control maintenance was highly variable. Thirty-nine percent of patients displayed well-controlled asthma (control at >90% of subsequent visits), whereas 13% displayed difficult-to-control asthma (<50% of subsequent visits). Patients from each baseline severity category were found in each group. Maintenance of

control was influenced by physician-estimated compliance with the treatment plan, baseline severity, and the interval between clinic visits. **CONCLUSIONS:** Many children can achieve asthma control with regular visit intervals and guideline-based care; however, long-term control can be highly variable among patients in all severity categories. **CLINICAL IMPLICATIONS:** These findings highlight the need and feasibility for systematically tracking each patient's clinical response to individualize therapy and guide the use of population management strategies.

20. Koinis-Mitchell D, McQuaid EL, Seifer R et al. Multiple urban and asthma-related risks and their association with asthma morbidity in children. *J Pediatr Psychol.* June 2007;32(5):582-95.

OBJECTIVE: To determine whether a multi-dimensional cumulative risk index (CRI) is a stronger predictor of asthma morbidity in urban, school-aged children with asthma, than poverty or severity alone. **METHODS:** A total of 163 children with asthma, ages 7-15 years (42% female; 69% ethnic minority) and their primary caregivers completed interview-based questionnaires, focusing on potential cultural, contextual, and asthma-specific risks that can impact asthma morbidity. **RESULTS:** Higher levels of cumulative risks were associated with more asthma morbidity, after controlling for poverty level or asthma severity. Analyses by ethnic group and subgroup also supported the relationship between the CRI and specific indices of asthma morbidity. **CONCLUSIONS:** This study demonstrates the utility of multiple-dimensional risk models for predicting variations in asthma morbidity in urban children. Research efforts with urban families who have children with asthma need to consider the context of urban poverty as it relates to children's cultural backgrounds and specific asthma outcomes.

21. Kattan M, Gergen PJ, Eggleston P, Visness CM, Mitchell HE. Health effects of indoor nitrogen dioxide and passive smoking on urban asthmatic children. *J Allergy Clin Immunol.* June 2007; [Epub ahead of print].

BACKGROUND: Nitrogen dioxide (NO₂) and environmental tobacco smoke (ETS) have been associated with adverse respiratory effects. **OBJECTIVE:** We sought to assess the effect of NO₂ and ETS on asthma morbidity among children in inner-city environments. **METHODS:** Asthmatic children between the ages of 4 and 9 years had exposure to NO₂ and ETS measured by using Palmes tubes in the home and urinary cotinine. A baseline interview and telephone assessments at 3, 6, and 9 months evaluated health service use, asthma symptoms, and peak flow rates. **RESULTS:** Gas stoves were present in 87.8% of 469 homes. The median level of indoor NO₂ was 29.8 ppb compared with the US national outdoor median of 18 ppb. Of 1444 children, 48% had urinary cotinine/creatinine ratios of greater than 30 ng/mg. The median level of the cotinine/creatinine ratio was 42.4 ng/mg in smoking homes compared with 18.0 ng/mg in nonsmoking homes. The relative risk for asthma symptoms with increased NO₂ exposure was 1.75 (95% CI, 1.10-2.78) in children who did not have positive skin test responses. Higher NO₂ exposure resulted in lower peak flows during colder months (relative risk, 1.46; 95% CI, 1.07-1.97). Higher ETS exposure in colder months was weakly associated with lower peak flows (relative risk, 1.21; 95% CI, 0.99-1.47). There was no effect of ETS exposure on symptoms or use of health care services.

CONCLUSION: Higher levels of indoor NO₂ are associated with increased asthma symptoms in nonatopic children and decreased peak flows. CLINICAL IMPLICATIONS: Interventions to reduce NO₂ exposure, such as venting of gas stoves, might help reduce asthma morbidity.

22. Winslow EB, Shaw DS. Impact of neighborhood disadvantage on overt behavior problems during early childhood. *Aggress Behav.* May 2007;33(3):207-19.

Researchers have yet to examine the impact of neighborhood disadvantage on early child behavior problems (BPs) longitudinally. We examined the impact of neighborhood disadvantage on overt BPs in a low-income, urban sample of 281 African American and European American boys followed longitudinally from toddlerhood to school entry. Measures included census data and maternal report of BPs, sociocultural factors, parental criminality, and maternal depressive symptomatology. After controlling for age 2 overt BPs, family selection variables, and residential instability, neighborhood effects on boys' behavior emerged, but only at age 6 and only at the extreme of neighborhood disadvantage (i.e., underclass). Findings suggest boys in underclass neighborhoods are at risk for overt BPs as they make the transition to elementary school.

23. Crum RM, Storr CL, Ialongo N, Anthony JC. Is depressed mood in childhood associated with an increased risk for initiation of alcohol use during early adolescence? *Addict Behav.* May 2007 23; [Epub ahead of print].

OBJECTIVE: Using prospective data, we tested the hypothesis that early depressed mood was associated with an increased risk for initiation of alcohol use. In addition, we examined whether these associations varied according to the youths' report that alcohol consumption occurred with or without parental permission. METHODS: The participants for these analyses were students, ages 9 to 13 years old, participating in a longitudinal study in an urban sample of public schools (n=2311). As part of the prospective annual assessments of the students, in 1990 through 1994, data on depressive mood and alcohol use were gathered. Logistic regression models were used to assess the association between the level of baseline depressed mood in 1990 and initiation of alcohol use between 1991 through 1994 in the sample of youth at risk for new onset drinking (n=1526). Other characteristics assessed in the analyses included age, sex, race-ethnicity, alcohol use by peers, neighborhood environment, and receipt of subsidized lunch. RESULTS: Higher level of early depressed mood was associated with an earlier and increased estimated risk of initiating alcohol use without parental permission for boys but not for girls. Depressed mood was not associated with alcohol use initiation that occurred with parental sanctions. CONCLUSIONS: Findings from the current study support the hypothesis that among urban youth, early depressed mood influences the initiation of alcohol consumption without parental permission for boys.

24. Boyer CB, Sieverding J, Siller J, Gallaread A, Chang YJ. Youth United Through Health Education: community-level, peer-led outreach to increase awareness and improve noninvasive sexually transmitted infection screening in urban African American youth. *J Adolesc Health.* June 2007;40(6):499-505.

PURPOSE: To evaluate the effectiveness of the Youth United Through Health Education (YUTHE) program, a community-level, peer-led outreach program to increase awareness and improve noninvasive sexually transmitted infection (STI) screening in youth residing in the targeted community. **METHODS:** Sexually experienced youth, aged 12-22 years, anonymously participated in the YUTHE program (a 15-minute encounter, including a risk assessment with feedback and prevention messages). A street- and venue-based intercept approach using a nonequivalent control group design was implemented to evaluate the YUTHE program. **RESULTS:** YUTHE community respondents were more likely to know that STIs could be asymptomatic (odds ratios [OR] 1.36, 95% confidence interval [CI] 1.08-1.72), know about urine-based STI screening tests (OR 1.34, 95% CI 1.04-1.72), perceive themselves to be at risk for STIs (OR 1.71, 95% CI 1.11-2.62), and worried about acquiring an STI (OR 1.50, 95% CI 1.04-2.18). No other community differences were identified. However, respondents who reported a single contact (OR = 2.12, 95% CI = 1.11-4.03) or multiple contacts (OR 2.78, 95% CI 1.81-4.26) with the YUTHE program were more likely to have been tested for STIs in the previous six months. **CONCLUSIONS:** We did not accomplish our overall goal of increasing STI screening in our outreach community relative to the comparison community; our findings suggest that a peer-led, street- and venue-based community outreach approach is a feasible means for reaching large numbers of adolescents for STI prevention.

25. Morrison DM, Hoppe MJ, Wells EA et al. Replicating a teen HIV/STD preventive intervention in a multicultural city. *AIDS Educ Prev.* June 2007;19(3):258-73.

Although there are now several adolescent HIV and STD preventive interventions of demonstrated efficacy in the literature, little is understood about the portability of these interventions. This study replicated Stanton's Focus on Kids intervention, developed for inner city African American adolescents, in a different population, transferring it to a multicultural city. Despite careful replication of the original study's procedures, youth in the preventive intervention condition of the replication study did not improve in attitudes, perceived norms, self-efficacy, or intentions toward sexual initiation, condom use, or abstinence compared with a carefully matched control condition. We discuss several possible reasons for this failure to replicate, concluding that the most likely reason is the lower rates of sexual activity among youth in the replication city.

26. Olshen E, McVeigh KH, Wunsch-Hitzig RA, Rickert VI. Dating violence, sexual assault, and suicide attempts among urban teenagers. *Arch Pediatr Adolesc Med.* June 2007;161(6):539-45.

OBJECTIVE: To evaluate the relationship between dating violence, sexual assault, and suicide attempts among urban adolescents. **DESIGN:** Secondary analysis of the 2005 New York City Youth Risk Behavior Survey. **SETTING:** Eighty-seven New York City public high schools. **PARTICIPANTS:** Representative population-based sample of 8080 students, 14 years and older. **MAIN EXPOSURES:** Dating violence in the past year and lifetime history of sexual assault. **OUTCOME MEASURE:** One or more suicide attempts in the past year. **RESULTS:** Respondents were 50.0% female and primarily black (36.0%) or Hispanic (40.1%). In the past year, 11.7% of females and 7.2% of males reported 1 or

more suicide attempts. Lifetime history of sexual assault was reported by 9.6% of females and 5.4% of males. Dating violence in the past year was reported by 10.6% of females and 9.5% of males. In multivariate models, controlling for persistent sadness, sexual orientation, and significant risk behaviors, recent dating violence (odds ratio, 1.61; 95% confidence interval, 1.05-2.47) was associated with suicide attempts in adolescent girls, while lifetime history of sexual assault (odds ratio, 3.86; 95% confidence interval, 2.11-7.06) was associated with suicide attempts in adolescent boys. **CONCLUSIONS:** In this population of urban youth, recent dating violence among females and lifetime history of sexual assault among males were significantly associated with suicide attempts. Clinicians and educators should be trained to routinely screen adolescents for violence victimization and should have a low threshold for referring these at-risk teenagers for mental health services.

27. Jaya J, Hindin MJ. Nonconsensual sexual experiences of adolescents in urban India. *J Adolesc Health.* June 2007;40(6):573-14.

PURPOSE: Research from developing countries suggests that nonconsensual sexual experiences are common, yet these experiences remain understudied. **METHODS:** We describe the prevalence and factors associated with nonconsensual sexual experiences of unmarried adolescents (583 boys and 474 girls), ages 15-19 years, from economically disadvantaged neighborhoods in Delhi, India. We also describe their reports of perpetrators. **RESULTS:** Thirty-two percent of boys and 42% of girls reported being touched against their will. After multivariate adjustment, both boys and girls who had ever worked (odds ratio [OR] = 1.76, $p = .05$ and OR = 1.79, $p = .004$, respectively) and those who had a friend of the opposite gender (OR = 3.64, $p = .0001$ and OR = 2.19, $p = .0001$, respectively) were more likely to report the experience. The most commonly reported perpetrators were female friends for boys (60%) and strangers for girls (93%). Fifteen percent of boys and 3% of girls reported that someone forcibly tried to have a physical relationship with them. Boys who had ever worked (OR = 3.73, $p = .007$) were more likely to report the experience. Both boys and girls who had a friend of the opposite sex were more likely to report attempted forced physical relationship (OR = 3.73, $p = .0001$ and OR = 3.41, $p = .03$, respectively). The most commonly reported perpetrators were female friends for boys (72%) and neighbors (60%) for girls. **CONCLUSIONS:** Nonconsensual sex is a common experience for these adolescents and there are important gender differences in experience and type of perpetrator. The findings underscore the need to develop programs that enable young people to prevent and cope with nonconsensual sexual experiences.

28. Brook JS, Balka EB, Ning Y, Brook DW. Trajectories of cigarette smoking among African Americans and Puerto Ricans from adolescence to young adulthood: associations with dependence on alcohol and illegal drugs. *Am J Addict.* May 2007;16(3):195-201.

This study predicts that heterogeneous smoking trajectories covering four time points pose differential risks for dependence on alcohol and illegal drugs in young adulthood in an African American and Puerto Rican community sample (N = 475). The trajectory analysis yielded four smoking groups: nonsmokers, maturing out smokers, late-starting smokers,

and early-starting continuous smokers. The early starting continuous group was more likely to become both alcohol- and drug-dependent in young adulthood than the other groups. Late-starting smokers were at higher risk than nonsmokers for drug dependence. Interventions are necessary from preadolescence through late adolescence to reduce the numbers of early and late smokers and their specific risks for substance dependence.

29. Stillman FA, Bone L, Vila-Tang E et al. Barriers to smoking cessation in inner-city African American young adults. *Am J Public Health*. August 2007;97(8):1405-8.

The prevalence of tobacco use among urban African American persons aged 18 to 24 years not enrolled in college is alarmingly high and a challenge for smoking cessation initiatives. Recent data from inner-city neighborhoods in Baltimore, Md, indicate that more than 60% of young adults smoke cigarettes. We sought to describe community-level factors contributing to this problem. Data from focus groups and surveys indicate that the sale and acquisition of "loosies" are ubiquitous and normative and may contribute to the high usage and low cessation rates.

30. Stueve A, O'Donnell L. Continued smoking and smoking cessation among urban young adult women: findings from the reach for health longitudinal study. *Am J Public Health*. August 2007;97(8):1408-11.

We examined smoking and smoking cessation among 538 young inner-city women who had been followed from early adolescence to young adulthood. Results showed that 14.3% of these young women had smoked in middle school, 26.4% had smoked in high school, and 21.9% had smoked at age 19 or 20 years, when many were rearing children, pregnant, or considering pregnancy. Young women who were raising children were more likely than those who were not to currently smoke or to have smoked in the past. Partner violence victimization was an independent risk factor for continued smoking. If improvements in smoking cessation rates are to be achieved, public health efforts must address factors underlying early and continued smoking.

Topic D: Women's Health

31. Ekberg-Aronsson M, Nilsson PM, Nilsson JA, Lofdahl CG, Lofdahl K. Mortality risks among heavy-smokers with special reference to women: a long-term follow-up of an urban population. *Eur J Epidemiol*. 2007;22(5):301-9.

Increased mortality risks associated with smoking are well established among men. There are very few population-based studies comprising a sufficient number of heavily smoking women, measuring the direct effect of smoking on mortality risks. Between 1974 and 1992, 8,499 women and 13,888 men attended a health screening programme including reporting of smoking habits. Individuals were followed for total mortality until 2005. All-cause, cancer, cardiovascular, lung cancer and respiratory mortality were calculated in smoking categories <10 g per day, 10-19 g per day, and \geq 20 g per day with never-smokers as a reference group and with adjustments for co-morbidities, socio-economic

and marital status. For respiratory mortality and lung cancer adjustments for FEV(1), socio-economic and marital status were performed. Smoking was associated with a two to almost threefold increased mortality risk among women and men. The relative risk (RR) with 95% confidence interval, (CI) for women who smoked 10-19 g per day was 2.44 (2.07-2.87), and for those who smoked 20 g per day or more the RR (95% CI) was 2.42 (2.00-2.92). Smoking was a strong risk factor for cardiovascular mortality among women, the RR (95% CI) for women who smoked 10-19 g per day was 4.52 (3.07-6.64). Ex-smoking women showed increased risks of all-cause mortality; RR (95% CI) 1.26 (1.04-1.52) cancer (excluding lung cancer); RR (95% CI) 1.42 (1.07-1.88) and lung cancer RR (95% CI) 2.71 (1.02-7.23) mortality. However, the cardiovascular; RR (95% CI) 1.18 (0.69-2.00) and respiratory; RR (95% CI) 0.79 (0.16-3.84) mortality risks were not statistically significant. This study confirms that as for men, middle-aged heavily smoking women have a two to threefold increased mortality risk. Adjustments for co-morbidity, socio-economic and marital status did not change these results.

32. Kim H, Bracha Y, Tipnis A. Automated depression screening in disadvantaged pregnant women in an urban obstetric clinic. *Arch Womens Ment Health*. June 2007 26; [Epub ahead of print].

Objective: A promising means of screening for depression among high-risk perinatal women involves interactive voice response (IVR) technology in which patients self-enter data into a database using a touch tone telephone. Our aim was to test the feasibility of using IVR to screen for depression among low-income, urban pregnant patients and to solicit their preferences for treatment. Methods: The study population included a convenience sample of English-speaking pregnant patients awaiting routine prenatal visits in an urban obstetric clinic. Consenting subjects used a phone in a private clinic room to complete an IVR version of the Edinburgh Postnatal Depression Scale (EPDS). Patients scoring in the "not depressed" range were branched to a closing message while those with mild to severe depressive symptoms were branched to additional automated questions about their treatment preferences. Results: All 54 participants who consented to the study were able to complete the IVR phone session. More than 90% expressed willingness to complete IVR interviews as part of routine prenatal and postpartum care. Sixteen out of 54 participants (29.6%) scored in the moderate to severe range for depressive symptoms (EPDS \geq 12) which was consistent with a prior study in the same population using a validated paper-pencil screen. Only 12 out of 21 (57%) depressed subjects indicated a desire to speak with a health care provider about how they are feeling. The majority of these depressed subjects preferred to speak with a social worker about housing or financial problems (92%) or an obstetrician or midwife (83%), while a minority (42%) wanted to speak with a mental health professional. Conclusions: This pilot study suggests that it is feasible to use an automated phone interview to screen for depression in low-income, urban pregnant women.

33. Fatone AM, Moadel AB, Foley FW, Fleming M, Jandorf L. Urban voices: the quality-of-life experience among women of color with breast cancer. *Palliat Support Care*. June 2007;5(2):115-25.

OBJECTIVES: Research on the health-related quality of life (HRQL) among women of color (i.e., Hispanics and African Americans) with breast cancer suggests that they may be at elevated risk for a variety of physical and psychosocial sequelae. The context in which these women perceive, experience, and respond to these HRQL challenges can provide important information for planning a culturally appropriate palliative care treatment plan. **METHODS:** In an effort to understand the quality of life experience after breast cancer among women of color, this study describes the nature and impact of physical, emotional, and menopausal symptoms among African American (n = 8) and Hispanic (n = 12) breast cancer survivors based on qualitative data gathered through semistructured interviews. Themes were identified and categorized into six HRQL domains: physical (e.g., pain, nausea), psychological (e.g., sadness, irritability), cognitive (e.g., memory problems), sexual (e.g., decreased desire), social/functional (e.g., financial strain, social distress), and spiritual/existential (e.g., increased faith, spiritual coping), with high interrater reliability ($\kappa = .81$). **RESULTS:** For both groups, physical issues had a major impact on HRQL, with psychological issues being additionally salient for Hispanic women. Most (88%) African American women voiced positive changes in their faith after diagnosis whereas 50% of Hispanic women viewed faith as an important way of coping with breast cancer. **SIGNIFICANCE OF RESULTS:** This research broadens our understanding of the experience of breast cancer among ethnic minority women, and in turn, offers some key directions for guiding the development of culturally tailored HRQL interventions.

34. Lofters A, Glazier RH, Agha MM, Creatore MI, Moineddin R. Inadequacy of cervical cancer screening among urban recent immigrants: a population-based study of physician and laboratory claims in Toronto, Canada. *Prev Med.* June 2007;44(6):536-42.

OBJECTIVE: In Canada, Pap smears are recommended from 18 to 69. Self-reported socioeconomic gradients in screening have been documented in North America but there have been few direct measures of Pap smear use among immigrants or socially disadvantaged groups. Our purpose was to investigate whether socioedemographic factors are related to cervical cancer screening in Toronto, Canada. **METHOD:** Pap smears were identified using fee and laboratory codes in Ontario physician service claims for 3 years (2000-2002 inclusive) for women aged 18-66. Area-level socioeconomic factors were derived from the 2001 census. At the individual level, recent registrants for health coverage, over 80% of whom are expected to be recent immigrants, were identified as women first registering after January 1, 1993. **RESULTS:** Among 724,584 women, 55.4% had Pap smears within 3 years. Recent immigration, visible minority, foreign language, low income and low education were all associated with significantly lower area rates. Recent registrants had much lower rates than non-recent registrants (36.9% versus 60.9%). **CONCLUSION:** Pap smear rates in Toronto fall below those dictated by evidence-based practice. Recent registrants, a largely immigrant group, have particularly low rates. Efforts to improve coverage need to emphasize women who recently immigrated and those with socioeconomic disadvantage.

35. Siegel K, Schrimshaw EW. The stress moderating role of benefit finding on psychological distress and well-being among women living with HIV/AIDS. *AIDS Behav.* May 2007;11(3):421-33.

This study examines whether the perception of having experienced growth as a result of a stressful event, often termed benefit finding, moderates the effects of stress (both physical symptomatology and social conflict) on psychological distress and well-being. For this cross-sectional study, an ethnically diverse sample (N = 138) of women living with HIV/AIDS completed a series of self-report measures. Hierarchical regression analysis demonstrated that physical symptoms, social conflict, and benefit finding were associated with psychological distress and positive affect, even after controlling for social support, locus of control, and demographic confounds. Significant interactions revealed that among women with a high number of HIV-related physical symptoms, benefit finding moderated the negative effects of physical symptoms on both depressive and anxious symptoms. Benefit finding was not found to moderate the effects of social conflict. These findings suggest a potential mechanism (i.e., stress buffering) by which benefit finding could promote psychological adjustment. Further, the finding that benefit finding only moderated the growth-inducing stressor (e.g., the illness), but not the effects of other stressors (e.g., social conflict), suggests possible limits to the stress-buffering role of benefit finding.

Topic E: HIV Risk and Prevention

36. Choi KH, Ning Z, Gregorich SE, Pan QC. The influence of social and sexual networks in the spread of HIV and syphilis among men who have sex with men in Shanghai, China. *J Acquir Immune Defic Syndr.* May 2007 1;45(1):77-84.

OBJECTIVES: To analyze characteristics of social and sexual networks and their role as risk factors for HIV and syphilis among men who have sex with men (MSM) in Shanghai, China. **DESIGN::** A cross-sectional study. **METHODS:** We recruited 477 participants using a snowball sampling method. We administered a face-to-face questionnaire and provided testing and counseling for HIV and syphilis. **RESULTS:** The prevalences of HIV and markers for syphilis were 1.47% (95% confidence interval [CI]: 0.59 to 3.01) and 13.47% (95% CI: 10.53 to 16.88), respectively. The independent factors associated with lower risk for syphilis infection were having a contact network, overlap of social and sexual networks, meeting other MSM at the gym or through the Internet, having 3 to 5 lifetime male anal sex partners, and having a female steady sex partner. A larger male sexual network size, having been married, being more knowledgeable about HIV, having 6 or more lifetime male anal sex partners, and having steady male or female sex partners were independently associated with having unprotected anal or vaginal intercourse. **CONCLUSIONS:** Significant associations were found between network characteristics and syphilis infection and unprotected sex. Network-based interventions should be developed to reduce this HIV risk among MSM in China.

37. Schwarcz S, Scheer S, McFarland W et al. Prevalence of HIV infection and predictors of high-transmission sexual risk behaviors among men who have sex with men. *Am J Public Health.* June 2007;97(6):1067-75.

OBJECTIVES: We sought to determine the prevalence of HIV and novel cofactors of high-transmission-risk behavior in a probability sample of men who have sex with men (MSM). **METHODS:** We performed a cross-sectional telephone survey of 1976 adult MSM in San Francisco. **RESULTS:** We found an HIV prevalence of 25.2%. Predictors of unprotected insertive anal intercourse with a serodiscordant (not having the same HIV/AIDS serostatus) partner among HIV-infected men included use of Viagra and a greater number of partners in the past 12 months. Unprotected receptive anal intercourse with a serodiscordant partner among men not known to be HIV infected was independently associated with having lived in San Francisco for less than 1 year, use of crystal methamphetamine and amyl nitrites, a greater number of partners, and agreement with the statement, "You are less careful about being safe with sex or drugs than you were several years ago because there are better treatments for HIV now." **CONCLUSIONS:** Strategies to prevent HIV for urban MSM should focus on new predictors of HIV transmission.

38. Coady MH, Latka MH, Thiede H et al. Housing Status and Associated Differences in HIV Risk Behaviors Among Young Injection Drug Users (IDUs). *AIDS Behav.* June 2007 6; [Epub ahead of print].

Using cross-sectional analysis we examined residential status and associated differences in HIV risk behaviors among 3266 young IDUs enrolled in an HIV prevention trial. A three-level outcome (homeless (37%), equivocally housed (17%), housed (46%)) was defined based on responses to two questions assessing subjective and objective criteria for homelessness: "equivocally housed" participants were discordant on these measures. In multivariate analysis, antecedents of homelessness were having lived in an out-of-home placement, been thrown out of the home or in juvenile detention, and experienced childhood abuse; while correlates included receiving income from other and illegal sources, drinking alcohol or using methamphetamine at least daily, using shooting galleries, backloading, and sex work. A subset of these variables was associated with being equivocally housed. HIV risk varies by housing status, with homeless IDUs at highest risk. Programs for IDUs should utilize a more specific definition of residential status to target IDUs needing intervention.

39. 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.* June 2007;13(2):432-9.

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.

40. Smith KC, Lillie TL, Latkin C. Injection drug users' strategies to manage perceptions of personal risk: how do IDUs see HIV as having affected them? *AIDS Educ Prev.* June 2007;19(3):245-57.

The U.S. public health community is in its 3rd decade of seeking to prevent and treat HIV/AIDS. Injection drug users (IDUs) are central to targeted HIV prevention interventions as approximately one third of new U.S. infections are attributable to injection drug use (Santibanez et al., *Journal of Urban Health*, 83[1], 86-100, 2006). Targeted behavior change efforts are often explicitly built upon the risk perception of targeted individuals. In this article, we consider the efficacy of behavior change based on IDUs' perceptions of elevated risk. Our qualitative analysis of 28 interviews with HIV negative IDUs in inner city Baltimore suggests that participants did not see themselves as personally affected by HIV. Rather, respondents constructed accounts in which they differentiated themselves from the type of people who are so affected, thereby creating a less stigmatizing identity. We argue that effective HIV prevention should explicitly acknowledge and address the stigmatized IDU identity, rather than assuming readiness for behavior change.

41. Salazar LF, Crosby RA, Holtgrave DR et al. Homelessness and HIV-Associated Risk Behavior Among African American Men Who Inject Drugs and Reside in the Urban South of the United States. *AIDS Behav.* May 2007 9; [Epub ahead of print].

This study determined whether homeless injection drug users (IDUs) were more likely than stably housed IDUs to engage in HIV-associated risk behaviors. Respondent driven sampling was used to recruit 343 African American male IDUs. About 69% of men had been homeless in the past year and 13% were HIV positive. Controlling for age and income, homeless men as compared to stably housed men were 2.6 times more likely to report sharing needles, 2.4 times more likely to have 4 or more sex partners and 2.4 times more likely to have had sex with other men. Homeless men were also twice as likely to report having unprotected sex with a casual partner and about two-thirds less likely to report never using sterile needles. Self-reported HIV status was an effect modifier of these associations such that the observed relationships applied mostly only to men who were not knowingly HIV positive.

Topic G: Correctional Health Issues

42. Kacanek D, Eldridge GD, Nealey-Moore J et al. Young incarcerated men's perceptions of and experiences with HIV testing. *Am J Public Health.* July 2007;97(7):1209-15.

We analyzed incarcerated men's perceptions of and experiences with HIV testing. Interviews were conducted with 105 men, aged 18 to 29 years, in 4 states. Most men had received an HIV test while incarcerated because it was convenient or free or because they thought it was mandatory. At most sites, men believed they were HIV-negative because they never received test results. Some men did not know the diseases for which they had been tested. Some men avoided HIV testing outside prison because they lacked time, lacked resources, feared knowing the results, or perceived themselves to not be at risk. HIV testing programs for young men inside or outside prison should address barriers to HIV testing, communicate the meaning and extent of testing, and improve notification of those with HIV-negative results.

43. Velasquez MM, von SK, Mullen PD, Carbonari JP, Kan LY. Psychiatric distress in incarcerated women with recent cocaine and alcohol abuse. *Womens Health Issues*. July 2007;17(4):264-72.

PURPOSE: Women frequently abuse cocaine and alcohol before incarceration. Research indicates that women in criminal justice settings also suffer high rates of psychiatric distress. This study aimed to determine how preincarceration abuse of alcohol and cocaine affected current psychiatric distress among female jail detainees held for 10-14 days. **METHODS:** A probability sample of women in a large urban jail (n = 469) were assessed for use of alcohol and cocaine during the 6 months before incarceration and for their current psychiatric distress. They were grouped based on their level of alcohol consumption and cocaine use: high cocaine/high alcohol; high cocaine/low alcohol; low cocaine/high alcohol; and low cocaine/low alcohol. Profile analysis was used to examine the relation of psychiatric distress, as measured by the Brief Symptom Inventory, to levels of recent alcohol and cocaine use. **RESULTS:** Psychiatric distress is highest (and similar) among women in the high cocaine groups, regardless of alcohol use, and psychiatric distress is lowest among those who used both substances infrequently. Characteristics of psychiatric distress differed based on level of alcohol use, but only when cocaine use was low. High alcohol and cocaine use alone and together also predict the likelihood of psychiatric distress reaching a diagnosable level of severity. **CONCLUSIONS:** High cocaine, alcohol, or combined use is related to higher levels of psychiatric distress among incarcerated women in this jail. Women should be screened at the time of incarceration, and women who have alcohol and other drug problems should receive treatment that includes mental health services.

44. Lamb HR, Weinberger LE, Marsh JS, Gross BH. Treatment prospects for persons with severe mental illness in an urban county jail. *Psychiatr Serv*. June 2007;58(6):782-6.

OBJECTIVE: A retrospective study of inmates with severe mental illness in a large, urban county jail aimed to obtain information about their psychiatric and criminal histories and status, the psychiatric services they used while incarcerated, and the challenges they might present in psychiatric treatment after release. **METHODS:** The authors ascertained demographic characteristics, diagnoses, psychiatric and legal histories, and current psychiatric condition and treatment from jail psychiatric records of a random sample of 104 male inmates with mental illness and from electronic county mental health records

and state records of criminal histories. RESULTS: Seventy-eight inmates (75%) were diagnosed as having a severe mental illness. Of these, 59 (76%) required inpatient care or its equivalent for part of their time in jail for the current offense. Of the inmates with severe mental illness, 92% had a history of nonadherence to medications before this arrest, 95% had prior arrests, 72% had prior arrests for violent crimes against persons, and 76% were known to have a history of substance abuse. CONCLUSIONS: A large percentage of persons with severe mental illness received their acute psychiatric inpatient treatment in the criminal justice system rather than in the mental health system. The persons with severe mental illness in this study would present a major challenge in treatment in any setting given their psychiatric and criminal histories. The resources of the mental health system need to be greatly expanded, with priority given to treating persons who are criminalized or who are in danger of becoming criminalized.

45. O'Driscoll C, Samuels A, Zacka M. Suicide in New South Wales Prisons, 1995-2005: towards a better understanding. *Aust N Z J Psychiatry*. June 2007;41(6):519-24.

OBJECTIVES: This paper reports on a review of suicides in New South Wales (NSW) prisons from 1 January 1995 to 31 December 2005 in an attempt to gain a better understanding of the nature and quality of the problem of suicide among prisoners. METHOD: All deaths in NSW prisons for the period were reviewed. Those identified as self-inflicted, with a coronial finding of death by suicide or those awaiting a coronial hearing but reported as possible death by suicide were included. A data set was collected on each case and entered into a database. RESULTS: A total of 92 cases were identified as deaths by suicide in NSW prisons from 1 January 1995 to 31 December 2005, representing 41% of all deaths in custody for the period. CONCLUSION: The rate of suicide in NSW prisons has been declining over the past 10 years, but remains approximately 10-fold that of the NSW community. Suicide was the leading cause of death among NSW inmates from 1995 to 2005. Suicide is a rare event, making its prediction a difficult task, with the prison environment a further compounding factor. This review highlights a number of factors, which appear to be common in many cases. Increased monitoring during the first week of incarceration may be an effective intervention. It is recommended that consideration be given to the length of time spent on remand and the value of custodial sentences of ≤ 6 months.

46. Schnittker J, John A. Enduring stigma: the long-term effects of incarceration on health. *J Health Soc Behav*. June 2007;48(2):115-30.

Although incarceration rates have risen sharply since the 1970s, medical sociology has largely neglected the health effects of imprisonment. Incarceration might have powerful effects on health, especially if it instills stigma, and it could provide sociologists with another mechanism for understanding health disparities. This study identifies some of incarceration's direct and indirect effects and rigorously tests them using the National Longitudinal Survey of Youth. It finds that incarceration has powerful effects on health, but only after release. A history of incarceration strongly increases the likelihood of severe health limitations. Furthermore, any contact with prison is generally more important than the amount of contact, a finding consistent with a stigma-based

interpretation. Although this relationship is partly attributable to diminished wage growth and marital instability, the bulk of the effect remains even under the most stringent of specifications, including controls for intelligence and the use of fixed effects, suggesting a far-reaching process with a proliferation of risk factors. The study also finds that incarceration contributes only modestly to racial disparities, that there are few synergistic interactions between incarceration and other features of inequality, including schooling, and that the evidence for a causal effect is much weaker among persistent recidivists and those serving exceptionally long sentences. These study findings are inconsistent with recent speculation; nevertheless, incarceration is an important addition to sociology's research agenda. Exploring incarceration could lead to, among other things, a fruitful synergy among studies on fundamental causes, stigma, and stress.