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Urban Health Literature Review
September-October 2006

Topic A: Neighborhood, Social, and Built Environment Effects

Topic B: Adolescents and Children

Topic C: Urban Women's Health

Topic D: Urban Drug Use

Topic E: Other Vulnerable, At Risk, or Hidden Populations

Topic F: Disaster Response

Topic A: Neighborhood, Social, and Built Environment Effects

1. Giles-Corti B. People or places: what should be the target? *J Sci Med Sport* 2006 October;9(5):357-66.

In the last decade, interest in the impact of the built environment on physical activity has grown. Policies and community and neighborhood infrastructure provide opportunities to be active, and facilitate incidental physical activity, such as walking for transport or use of stairs. Theoretical ecological models provide a basis for physical activity research and practice, focusing attention on multiple levels of influence on behavior (i.e., individual, social-environmental and physical environmental). However, few studies have quantified the relative contribution of these correlates on behavior, leaving policy-makers and practitioners wondering about where to target their efforts: people or places? This paper draws on theory, evidence to date and case studies to argue that comprehensive interventions targeting both people and places are required to increase physical activity. The joint influence of place and people is discussed in the context of data showing that the likelihood of walking at recommended levels is nearly eight times higher (OR 7.84; 95% CI 4.41-13.91) in people with both a supportive environment and positive cognitions compared with those low on both. To increase physical activity requires multi-sector partnerships and comprehensive long-term multi-pronged interventions that include short-, medium- and long-term strategies aimed at bringing about cultural shifts favoring physical activity over sedentary alternatives, and the creation of a supportive built environment. The health sector can contribute by implementing public education programs, workforce development, building the evidence-base and advocating for change. However, to improve policies and infrastructure in places the commitment of sectors outside of health is critical.

2. Szapocznik J, Lombard J, Martinez F et al. The Impact of the Built Environment on Children's School Conduct Grades: The Role of Diversity of Use in a Hispanic Neighborhood. *Am J Community Psychol* 2006 September 13; [Epub ahead of print].

A population-based study examined the relationship between diversity of use of the built environment and teacher reports of children's grades. Diversity of use of the built environment (i.e., proportion of a block that is residential, institutional, commercial and vacant) was assessed for all 403 city blocks in East Little Havana, Miami-a Hispanic neighborhood. Cluster analysis identified three block-types, based on diversity of use: Residential, Mixed-Use, and Commercial. Cross-classified hierarchical linear modeling was used to examine the impact of diversity of use, school, gender, and year-in-school on academic and conduct grades for 2857 public school children who lived in these blocks. Contrary to popular belief, mixed-use blocks were associated with optimal outcomes. Specifically, follow-up analyses found that a youth living on a residential block had a 74% greater odds of being in the lowest 10% of conduct grades (conduct GPA <2.17) than a youth living on a mixed-use block. In fact, an analysis of the population attributable fraction suggests that if the risk associated with residential blocks could be reduced to the level of risk associated with mixed-use blocks, a 38% reduction in Conduct GPAs <2.17 could be achieved in the total population. These findings suggest that public policy targeting the built environment may be a mechanism for community-based interventions to enhance children's classroom conduct, and potentially related sequelae.

3. Richards R, Smith C. Shelter environment and placement in community affects lifestyle factors among homeless families in Minnesota. *Am J Health Promot* 2006 September;21(1):36-44.

PURPOSE: To investigate the impact of the shelter environment and surrounding community on lifestyle factors influencing the health of homeless families. **DESIGN AND SETTING:** Seven focus groups were conducted at two homeless shelters serving families in Minneapolis, Minnesota. Food resources and food prices at convenience stores were recorded within a five-block radius of shelters. **SUBJECTS:** Low-income parents of children aged 3-12 years (n = 53). **MEASURES:** Focus groups were transcribed verbatim, evaluated for common themes, coded, and reevaluated for consistency. Food resources were mapped via GIS software, and recorded food prices were compared to available TFP market basket prices. **ANALYSIS RESULTS:** The shelter environment and surrounding community influenced lifestyle factors related to health, including food access and availability, exercise behaviors, job access, and day care issues. Participants commented that location of grocery stores, inflated prices, and poor food quality and variety limited their families' food choice and access. Walking was the main form of exercise and served as a means of transportation. Finding employment, housing, and affordable day care caused high levels of stress because of inadequate social support and government subsidies. **CONCLUSIONS:** Several strategies should be considered to modify environments affecting lifestyle factors

among homeless families, including greater affordability and access of food, reevaluation of food stamp allotments, alterations in urban planning designs, and increased access to affordable day care.

4. Powell LM, Slater S, Mirtcheva D, Bao Y, Chaloupka FJ. Food store availability and neighborhood characteristics in the United States. *Prev Med* 2006 September 22; [Epub ahead of print].

OBJECTIVE.: This study provides a multivariate analysis of the availability of food store outlets in the US and associations with neighborhood characteristics on race, ethnicity and socioeconomic status (SES). **METHOD.:** Commercial food store outlet data are linked across 28,050 zip codes to Census 2000 data. Multivariate regression analyses are used to examine associations between the availability of chain supermarkets, non-chain supermarkets, grocery stores and convenience stores and neighborhood characteristics on race, ethnicity and SES including additional controls for population size, urbanization and region. **RESULTS.:** Low-income neighborhoods have fewer chain supermarkets with only 75% ($p<0.01$) of that available in middle-income neighborhoods. Even after controlling for income and other covariates, the availability of chain supermarkets in African American neighborhoods is only 52% ($p<0.01$) of that in White neighborhoods with even less relative availability in urban areas. Hispanic neighborhoods have only 32% ($p<0.01$) as many chain supermarkets compared to non-Hispanic neighborhoods. Non-chain supermarkets and grocery stores are more prevalent in low-income and minority neighborhoods. **CONCLUSION.:** The study results highlight the importance of various potential public policy measures for improving access to supermarkets that may serve to reduce systematic local area barriers that are shown to exist by race, ethnicity and income.

5. Hillsdon M, Panter J, Foster C, Jones A. The relationship between access and quality of urban green space with population physical activity. *Public Health* 2006 October 24; [Epub ahead of print].

OBJECTIVES: This study examined the association between access to quality urban green space and levels of physical activity. **STUDY DESIGN:** A cross-sectional examination of the relationship between access to quality urban green space and level of recreational physical activity in 4950 middle-aged (40-70 years) respondents from the European Prospective Investigation into Cancer and Nutrition (EPIC), who resided in Norwich, UK. **METHODS:** Using geographic information systems (GIS), three measures of access to open green space were calculated based on distance only, distance and size of green space and distance, size and quality of green space. Multiple regression models were used to determine the relationship between the three indicators of access to open green space and level of recreational physical activity. **RESULTS:** There was no evidence of clear relationships between recreational activity and access to green spaces. Non-significant associations were apparent for all variables, and there was no evidence of a clear trend in regression coefficients across quartiles of access for either the distance, size adjusted, and quality and size-adjusted models. Furthermore, the neighbourhood measures of access to green spaces showed non-significant associations with recreational physical activity. **CONCLUSIONS:** Access to urban

green spaces does not appear to be associated with population levels of recreational physical activity in our sample of middle-aged adults.

6. Miles R. Neighborhood disorder and smoking: findings of a European urban survey. *Soc Sci Med* 2006 November;63(9):2464-75.

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.

7. Caughy MO, Nettles SM, O'Campo PJ, Lohrfink KF. Neighborhood matters: racial socialization of African American children. *Child Dev* 2006 September;77(5):1220-36.

Differences in racial socialization practices and their effects were examined in a sample of 241 African American 1st graders (average age 6.59 years) living in an urban area. Child outcomes included cognitive development, receptive language skills, and child problem behavior. The cultural environment of the home was associated with higher cognitive scores for boys living in high negative social climate and low social capital neighborhoods and for girls living in high social capital neighborhoods. The positive association of promotion of mistrust and child behavior problems was magnified in neighborhoods that had low levels of social capital. A high negative social climate in the neighborhood attenuated the positive association between preparation for bias/promotion of mistrust and externalizing problems.

8. Kerrigan D, Witt S, Glass B, Chung SE, Ellen J. Perceived neighborhood social cohesion and condom use among adolescents vulnerable to HIV/STI. *AIDS Behav* 2006 November;10(6):723-9.

The relationship between neighborhood social dynamics and adolescent sexual behavior has not been well explored. We conducted a cross-sectional survey with 343 adolescents recruited from two health clinics in Baltimore. Multivariate logistic regression was utilized to assess the influence of perceived neighborhood social cohesion and collective monitoring of youth on condom use at last sex, controlling for family and individual factors. Condom use was significantly higher among participants

who perceived their neighborhoods as high, 54.7%, versus low, 40.4%, in social cohesion. Neighborhood cohesion was significantly associated with condom use in multivariate analyses, as was parental communication, family structure, and gender. No association between perceived neighborhood collective monitoring of youth and condom use was found. We conclude that perceived neighborhood social cohesion is positively associated with condom use among adolescents vulnerable to HIV/STI and should be encouraged in the context of community-based prevention efforts.

9. Wright RJ. Health effects of socially toxic neighborhoods: the violence and urban asthma paradigm. *Clin Chest Med* 2006 September;27(3):413-21, v.

Asthma outcomes are clearly socially patterned with asthma ranking as a leading cause of health disparities among minority and low socioeconomic groups. Yet, the increasing prevalence and marked disparities in asthma remain largely unexplained by known risk factors. These marginalized individuals may also live in communities that are increasingly socially toxic, which may be related to increased psychosocial stress that also contributes to asthma morbidity. This article focuses on violence exposure as a useful paradigm to understand how chronic social stressors may influence asthma expression.

10. Matheson FI, Moineddin R, Dunn JR, Creatore MI, Gozdyra P, Glazier RH. Urban neighborhoods, chronic stress, gender and depression. *Soc Sci Med* 2006 November;63(10):2604-16.

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.

11. Messer LC, Laraia BA, Kaufman JS et al. The Development of a Standardized Neighborhood Deprivation Index. *J Urban Health* 2006 September 21; [Epub ahead of print].

Census data are widely used for assessing neighborhood socioeconomic context. Research using census data has been inconsistent in variable choice and usually limited to single geographic areas. This paper seeks to a) outline a process for developing a neighborhood deprivation index using principal components analysis and b) demonstrate an example of its utility for identifying contextual variables that are associated with perinatal health outcomes across diverse geographic areas. Year 2000 U.S. Census and vital records birth data (1998-2001) were merged at the census tract level for 19 cities (located in three states) and five suburban counties (located in three states), which were used to create eight study areas within four states. Census variables representing five socio-demographic domains previously associated with health outcomes, including income/poverty, education, employment, housing, and occupation, were empirically summarized using principal components analysis. The resulting first principal component, hereafter referred to as neighborhood deprivation, accounted for 51 to 73% of the total variability across eight study areas. Component loadings were consistent both within and across study areas (0.2-0.4), suggesting that each variable contributes approximately equally to "deprivation" across diverse geographies. The deprivation index was associated with the unadjusted prevalence of preterm birth and low birth weight for white non-Hispanic and to a lesser extent for black non-Hispanic women across the eight sites. The high correlations between census variables, the inherent multidimensionality of constructs like neighborhood deprivation, and the observed associations with birth outcomes suggest the utility of using a deprivation index for research into neighborhood effects on adverse birth outcomes.

12. Chen JT, Rehkopf DH, Waterman PD et al. Mapping and Measuring Social Disparities in Premature Mortality: The Impact of Census Tract Poverty within and across Boston Neighborhoods, 1999-2001. *J Urban Health* 2006 September 26; [Epub ahead of print].

The identification and documentation of health disparities are important functions of public health surveillance. These disparities, typically falling along lines defined by gender, race/ethnicity, and social class, are often made visible in urban settings as geographic disparities in health between neighborhoods. Recognizing that premature mortality is a powerful indicator of disparities in both health status and access to health care that can readily be monitored using routinely available public health surveillance data, we undertook a systematic analysis of spatial variation in premature mortality in Boston (1999-2001) across neighborhoods and sub-neighborhoods in relation to census tract (CT) poverty. Using a multilevel model based framework, we estimated that the incidence of premature mortality was 1.39 times higher (95% credible interval 1.09-1.78) among persons living in the most economically deprived CTs ($\geq 20\%$ below poverty) compared to those in the least impoverished tracts ($< 5\%$ below poverty). We present maps of model-based standardized mortality ratios that show substantial within-

neighborhood variation in premature mortality and a sizeable decrease in spatial variation after adjustment for CT poverty. Additionally, we present maps of model-based direct standardized rates that can more readily be compared to externally published rates and targets, as well as maps of the population attributable fraction that show that in some of Boston's poorest neighborhoods, the proportion of excess deaths associated with CT poverty reaches 25-30%. We recommend that these methods be incorporated into routine analyses of public health surveillance data to highlight continuing social disparities in premature mortality.

Topic B: Adolescents and Children

13. Gasana J, Hlaing WM, Siegel KA, Chamorro A, Niyonsenga T. Blood lead levels in children and environmental lead contamination in Miami inner city, Florida. *Int J Environ Res Public Health* 2006 September;3(3):228-34.

Studies have shown that the environmental conditions of the home are important predictors of health, especially in low-income communities. Understanding the relationship between the environment and health is crucial in the management of certain diseases. One health outcome related to the home environment among urban, minority, and low-income children is childhood lead poisoning. The most common sources of lead exposure for children are lead paint in older, dilapidated housing and contaminated dust and soil produced by accumulated residue of leaded gasoline. Blood lead levels (BLL) as low as 10 mug/dL in children are associated with impaired cognitive function, behavior difficulties, and reduced intelligence. Recently, it is suggested that the standard for intervention be lowered to BLL of 5 mug/dl. The objectives of our report were to assess the prevalence of lead poisoning among children under six years of age and to quantify and test the correlations between BLL in children and lead exposure levels in their environment. This cross-sectional analysis was restricted to 75 children under six years of age who lived in 6 zip code areas of inner city Miami. These locations exhibited unacceptably high levels of lead dust and soil in areas where children live and play. Using the 5 mug/dL as the cutoff point, the prevalence of lead poisoning among the study sample was 13.33%. The study revealed that lead levels in floor dust and window sill samples were positively and significantly correlated with BLL among children ($p < 0.05$). However, the correlations between BLL and the soil, air, and water samples were not significant. Based on this pilot study, a more comprehensive environmental study in surrounding inner city areas is warranted. Parental education on proper housecleaning techniques may also benefit those living in the high lead-exposed communities of inner city Miami.

14. Lyons AL, Carlson GA, Thurm AE, Grant KE, Gipson PY. Gender differences in early risk factors for adolescent depression among low-income urban children. *Cultur Divers Ethnic Minor Psychol* 2006 October;12(4):644-57.

One component of a model by Nolen-Hoeksema and Girgus, who propose that risk factors for adolescent depression are more common in girls than in boys during childhood, was tested with 85 low-income, urban, African American and Latino kindergarten through fourth grade children who completed inventories of depression, stress, attributional style, gender role, and body image. Endorsing two of three predicted risk factors, girls reported slightly poorer body image and identified more strongly with a feminine gender role. Boys, however, reported a more negative attributional style. Feminine gender role was not associated with body image or negative attributional style. The applicability of the proposed model to a low-income, ethnic minority, urban population is discussed. ((c) 2006 APA, all rights reserved)

15. Jaycox LH, McCaffrey D, Eiseman B et al. Impact of a school-based dating violence prevention program among Latino teens: randomized controlled effectiveness trial. *J Adolesc Health* 2006 November;39(5):694-704.

PURPOSE: Given the high rate of dating violence between teens and associated deleterious outcomes, the need for effective prevention and early intervention programs is clear. Break the Cycle's Ending Violence curriculum, a three-class-session prevention program focused on legal issues, is evaluated here for its impact on Latino/a youth. **METHODS:** Tracks within large urban high schools that had at least 80% Latino/a students were randomized to immediate or delayed curriculum. Classrooms were randomly selected within tracks and individual student outcomes were assessed pre- and postintervention and six months later. **RESULTS:** Students in intervention classrooms showed improved knowledge, less acceptance of female-on-male aggression, and enhanced perception of the helpfulness and likelihood of seeking assistance from a number of sources immediately after the program. Improved knowledge and perceived helpfulness of an attorney were maintained six months later. There were no differences in recent abusive/fearful dating experiences or violence victimization or perpetration. **CONCLUSIONS:** The Ending Violence curriculum has an impact on teen norms, knowledge, and help-seeking proclivities that may aid in early intervention for dating violence among Latino/a students.

16. Ickovics JR, Meade CS, Kershaw TS, Milan S, Lewis JB, Ethier KA. Urban teens: Trauma, posttraumatic growth, and emotional distress among female adolescents. *J Consult Clin Psychol* 2006 October;74(5):841-50.

Urban teens face many traumas, with implications for potential growth and distress. This study examined traumatic events, posttraumatic growth, and emotional distress over 18 months among urban adolescent girls (N = 328). Objectives were to (a) describe

types of traumatic events, (b) determine how type and timing of events relate to profiles of posttraumatic growth, and (c) prospectively examine effects of event type and posttraumatic growth on short- and long-term emotional distress with controls for pre-event distress. Results indicate that type of event was related to profiles of posttraumatic growth, but not with subsequent emotional distress. When baseline emotional distress was controlled, posttraumatic growth was associated with subsequent reductions in short- and long-term emotional distress. Implications for future research and clinical practice with adolescents are addressed.

17. Solorio MR, Milburn NG, Andersen RM, Trifskin S, Rodriguez MA. Emotional distress and mental health service use among urban homeless adolescents. *J Behav Health Serv Res* 2006 October;33(4):381-93.

The Expanded Behavioral Model for Vulnerable Populations was used to examine the predisposing, enabling, and need factors associated with mental health service use in a homeless adolescent sample (N = 688). Among all youth, 32% perceived a need for help with mental health problems and 15% met Brief-Symptom Inventory (BSI) criteria for emotional distress. The rate of mental health service use in our sample was 32%. One enabling factor, having a case manager/discussed mental health concerns, and one need factor, which met criteria for BSI, were found to be associated with mental health service use in the past 3 months. The majority of youth who used mental health services had obtained services from crisis centers. Among those who perceived a need for help with mental health problems but who did not use services, the most common barrier was not knowing where to go or what service to use (57%). These findings suggest that due to the high prevalence of mental health problems among homeless youth, it would be helpful for service providers coming into contact with youth to make them aware of existing community resources for mental health services; making youth aware of these resources may in turn decrease the rate of crisis center use and instead allow youth to receive mental health services in outpatient settings that provide continuity of care.

18. Naar-King S, Idalski A, Ellis D et al. Gender differences in adherence and metabolic control in urban youth with poorly controlled type 1 diabetes: the mediating role of mental health symptoms. *J Pediatr Psychol* 2006 September;31(8):793-802.

OBJECTIVE: To examine gender differences in adherence and metabolic control and test the mediating role of mental health symptoms in a sample of predominantly African-American, low-income youth with chronically poor metabolic control. **METHODS:** Baseline questionnaire data from an intervention study were collected from 119 youth and their primary caregiver. **RESULTS:** Boys had worse adherence than girls, but there were no gender differences in hemoglobin A1C (HbA1C). Boys had more externalizing symptoms, whereas girls had more anxiety; there were no gender differences in depression. Externalizing symptoms were associated with poor adherence and metabolic control. Although anxiety was correlated with poor adherence, this relationship was not significant in the invariate analysis. Results of structural equation modeling (SEM) suggested that externalizing symptoms mediated the relationship between gender and adherence. **CONCLUSIONS:** Results suggest that gender

differences in adherence may be attributed, in part, to gender differences in externalizing symptoms in urban youth with poor metabolic control. Interventions targeting these symptoms may be necessary to improve adherence and HbA1C in both boys and girls.

19. Izutsu T, Tsutsumi A, Islam AM, Kato S, Wakai S, Kurita H. Mental health, quality of life, and nutritional status of adolescents in Dhaka, Bangladesh: comparison between an urban slum and a non-slum area. *Soc Sci Med* 2006 September;63(6):1477-88.

This study aims to clarify the quality of life (QOL), mental health, and nutritional status of adolescents in Dhaka city, Bangladesh by comparing non-slum areas and slums, and to find the factors associated with their mental health problems. A sample of 187 boys and 137 girls from non-slum areas, and 157 boys and 121 girls from slums, between 11-18 years old were interviewed with a questionnaire consisting of a Bangla translation of the World Health Organization Quality of Life Assessment Instrument (WHOQOL-BREF), Self Reporting Questionnaire (SRQ), Youth Self-Report (YSR) and other questions. The height and weight of the respondents were measured. All significant differences in demographic characteristics, anthropometric measures, and WHOQOL-BREF were found to reflect worse conditions in slum than in non-slum areas. Contrarily, all differences in SRQ and YSR were worse in non-slum areas for both genders, except that the "conduct problems" score for YSR was worse for slum boys. Mental states were mainly associated with school enrollment and working status. Worse physical environment and QOL were found in slums, along with gender and area specific mental health difficulties. The results suggest gender specific needs and a requirement for area sensitive countermeasures.

20. Ruchirawat M, Navasumrit P, Settachan D, Autrup H. Environmental impacts on children's health in Southeast Asia: genotoxic compounds in urban air. *Ann N Y Acad Sci* 2006 September;1076:678-90.:678-90.

Air pollution is a serious problem in many countries in Southeast Asia, particularly in major metropolises with high levels of traffic congestion generating significant amounts of genotoxic substances. The contribution of such environmental exposure to children's illnesses, such as respiratory diseases and cancer, is a public health concern. Inner-city children may have higher levels of exposure to genotoxic substances in the air than those living in rural areas. This study was conducted in Bangkok, where ambient levels of polycyclic aromatic hydrocarbons (PAHs) and benzene are relatively high. Bangkok school children were exposed to total PAHs at about sixfold higher levels than those in rural areas, with levels of urinary 1-hydroxypyrene (1-OHP) also being significantly higher. PAH-DNA adduct levels in lymphocytes were fivefold higher in Bangkok children. Benzene exposure in Bangkok school children was more than twofold higher than the levels measured in children from the rural areas. This is in agreement with the biomarkers of internal dose, that is, blood benzene and urinary trans, trans-muconic acid (t,t-MA) levels. The potential health risks from exposure to PAHs and benzene were assessed through the use of DNA damage and DNA repair capacity as markers of early biological effect. DNA strand breaks were significantly higher in Bangkok school

children, while DNA repair capacity was significantly lower. It appears that children in major cities in developing countries may have an increased health risk for the development of certain diseases, such as cancer due to exposure to genotoxic substances in their environment.

21. Sax SN, Bennett DH, Chillrud SN, Ross J, Kinney PL, Spengler JD. A cancer risk assessment of inner-city teenagers living in New York City and Los Angeles. *Environ Health Perspect* 2006 October;114(10):1558-66.

BACKGROUND: The Toxics Exposure Assessment Columbia-Harvard (TEACH) project assessed exposures and cancer risks from urban air pollutants in a population of high school teenagers in New York City (NYC) and Los Angeles (LA). Forty-six high school students participated in NYC and 41 in LA, most in two seasons in 1999 and 2000, respectively. **METHODS:** Personal, indoor home, and outdoor home 48-hr samples of volatile organic compounds (VOCs), aldehydes, particulate matter with aerodynamic diameter ≤ 2.5 microm, and particle-bound elements were collected. Individual cancer risks for 13 VOCs and 6 particle-bound elements were calculated from personal concentrations and published cancer unit risks. **RESULTS:** The median cumulative risk from personal VOC exposures for this sample of NYC high school students was 666 per million and was greater than the risks from ambient exposures by a factor of about 5. In the LA sample, median cancer risks from VOC personal exposures were 486 per million, about a factor of 4 greater than ambient exposure risks. The VOCs with the highest cancer risk included 1,4-dichlorobenzene, formaldehyde, chloroform, acetaldehyde, and benzene. Of these, benzene had the greatest contributions from outdoor sources. All others had high contributions from indoor sources. The cumulative risks from personal exposures to the elements were an order of magnitude lower than cancer risks from VOC exposures. **CONCLUSIONS:** Most VOCs had median upper-bound lifetime cancer risks that exceeded the U.S. Environmental Protection Agency (EPA) benchmark of 1×10^{-6} and were generally greater than U.S. EPA modeled estimates, more so for compounds with predominant indoor sources. Chromium, nickel, and arsenic had median personal cancer risks above the U.S. EPA benchmark with exposures largely from outdoors and other microenvironments. The U.S. EPA-modeled concentrations tended to overestimate personal cancer risks for beryllium and chromium but underestimate risks for nickel and arsenic.

22. Pastorino AC, Rimazza RD, Leone C, Castro AP, Sole D, Jacob CM. Risk factors for asthma in adolescents in a large urban region of Brazil. *J Asthma* 2006 November;43(9):695-700.

Background. Identify risk factors for asthma in adolescents from Sao Paulo, Brazil. **Methods.** total of 528 adolescents (141 asthmatics, 387 control subjects) from the ISAAC study (phase III) were submitted to a complementary questionnaire to evaluate risk factors, through response to questions regarding personal history, environment, and diet and an agreement to undergo the skin prick test (SPT) for aeroallergens. **Results.** Positive SPT to at least one allergen occurred in 49.4% adolescents. The risk factors for asthma were: prematurity (OR: 3.84, 95% CI: 1.54-9.64), rhinitis (OR: 3.18, 95% CI: 1.71-5.91), positivity in the SPT (OR: 2.81, 95% CI: 1.48-5.32), eczema in

characteristic skin-folds (OR: 2.86, 95% CI: 1.13-7.26), and an allergic mother (OR: 2.01, 95% CI: 1.02-3.93). The consumption of cooked vegetables was a protective factor for asthma (OR: 0.37, 95% CI: 0.18-0.79) Conclusions. Asthma is a multifactorial disease. An allergic mother, aeroallergen sensitization, rhinitis, eczema and prematurity were considered risk factors and the consumption of cooked vegetables was considered a protective factor for asthma in this population.

23. Thyne SM, Rising JP, Legion V, Love MB. The yes we can urban asthma partnership: a medical/social model for childhood asthma management. *J Asthma* 2006 November;43(9):667-73.

Pediatric asthma programs have struggled to integrate children's medical and social needs. We developed and piloted an integrated team model for asthma care for low-income children through the Yes We Can Urban Asthma Partnership. Program evaluation demonstrated increases in prescribing controller medications ($p < 0.05$), use of action plans ($p < 0.001$), and the use of mattress covers ($p < 0.001$); and decrease in asthma symptoms ($p < 0.01$). Additional changes occurred within the local system of asthma care to support ongoing efforts to improve asthma management. We conclude that pediatric asthma programs can effectively target the social and medical needs of children in a sustainable manner

24. Mudd K, Bollinger ME, Hsu VD, Donithan M, Butz A. Pharmacy fill patterns in young urban children with persistent asthma. *J Asthma* 2006 October;43(8):597-600.

BACKGROUND: Medication adherence impacts healthcare utilization. Pharmacy records are useful to establish fill patterns. **OBJECTIVE:** Use pharmacy records to establish medication patterns fill patterns for comparison to healthcare utilization. **Methods.** Pharmacy records of 175 children with persistent asthma were collected and compared to healthcare utilization. **RESULTS:** Majority of subjects had significant healthcare utilization, low numbers of rescue medications, and poor controller medication fill rates. Those with more rescue medications had more healthcare utilization and more controller medications. **CONCLUSIONS:** Pharmacy fill patterns demonstrate few rescue and/or controller medication fills. Those with more rescue medications reported increased healthcare utilization despite controller medications.

25. Hansel NN, Eggleston PA, Krishnan JA et al. Asthma-related health status determinants of environmental control practices for inner-city preschool children. *Ann Allergy Asthma Immunol* 2006 September;97(3):409-17.

BACKGROUND: Asthma guidelines recommend environmental control practices (ECPs) to improve asthma health. In the inner city, where asthma morbidity is high, it is not known whether children's health status affects the use of ECPs. **OBJECTIVE:** To investigate health status determinants of ECPs in the homes of children with asthma. **METHODS:** Caregivers of children aged 2 to 6 years with ($n = 150$) and without ($n = 150$) asthma completed a survey about ECPs. Atopic status was determined by means of skin prick testing. **RESULTS:** Most ECPs were similarly practiced, regardless of

whether the child had asthma. Only pet avoidance was more common in children with asthma (30% vs 19%). Asthma severity and recent acute health care visits for asthma were not associated with ECP use. Most ECPs were not linked to allergen sensitization (eg, mite and mouse), although cockroach-sensitized children were more likely to have cockroach control than nonsensitized individuals (65% vs 45%). Caregivers of asthmatic children with rhinitis were more likely than those without rhinitis to report ECPs, including pet avoidance (44% vs 15%), smoking avoidance (78% vs 53%), cockroach control (65% vs 42%), mouse control (78% vs 42%), air-conditioning (45% vs 24%), and allergyproof covers (7% vs 0%). CONCLUSIONS: The presence of asthma, asthma severity, and allergen sensitization seem to have little relationship to ECP use in the homes of inner-city children. Rhinitis was consistently linked to ECPs, which suggests that caregivers may make changes in the home environment for upper airway but not lower airway symptoms.

26. Nepomnyaschy L, Reichman NE. Low birthweight and asthma among young urban children. *Am J Public Health* 2006 September;96(9):1604-10.

OBJECTIVES: We assessed whether the association between low birthweight and early childhood asthma can be explained by an extensive set of individual- and neighborhood-level measures. METHODS: A population-based sample of children born in large US cities during 1998-2000 was followed from birth to age 3 years (N=1803). Associations between low birthweight and asthma diagnosis at age 3 years were estimated using multilevel models. Prenatal medical risk factors and behaviors, demographic and socioeconomic characteristics, and neighborhood characteristics were controlled. RESULTS: Low-birthweight children were twice as likely as normal birthweight children to have an asthma diagnosis (34% vs 18%). The fully adjusted association (OR= 2.36; P<.001) was very similar to the unadjusted association (OR= 2.48; P<.001). Rates of renter-occupied housing and vacancies at the census tract-level were strong independent predictors of childhood asthma. CONCLUSIONS: Very little of the association between low birthweight and asthma at age 3 can be explained by an extensive set of demographic, socioeconomic, medical, behavioral, and neighborhood characteristics. Associations between neighborhood housing characteristics and asthma diagnosis in early childhood need to be further explored.

27. Stingone JA, Claudio L. Asthma and enrollment in special education among urban schoolchildren. *Am J Public Health* 2006 September;96(9):1593-8.

OBJECTIVES: We assessed whether asthma is associated with urban children's use of special education services. METHODS: We conducted a cross-sectional study in 24 randomly selected New York City public elementary schools using a parent-report questionnaire focusing on sociodemographic characteristics, special education enrollment, asthma diagnosis and symptoms, school absences, and use of health care services. RESULTS: Thirty-four percent of children enrolled in special education had been diagnosed with asthma, compared with 19% of children in the general student population. After control for sociodemographic factors, children with asthma were 60% more likely than children without asthma to be enrolled in special education (odds ratio

[OR] = 1.62; 95% confidence interval [CI] = 1.22, 2.16). Asthmatic children in special education were significantly more likely to be from low-income families and to have been hospitalized in the previous 12 months than asthmatic children in general education. CONCLUSIONS: Inadequate asthma control may contribute to a greater risk of asthmatic children residing in urban areas being placed in special education. School health programs should consider targeting low-income urban children with asthma at risk for enrollment in special education through increased asthma interventions and medical support services.

Topic C: Urban Women's Health

28. Brown N, Naman P, Homel P, Fraser-White M, Clare R, Browne R. Assessment of preventive health knowledge and behaviors of African-American and Afro-Caribbean women in urban settings. *J Natl Med Assoc* 2006 October;98(10):1644-51.

OBJECTIVES: This report measures the extent of health knowledge and preventive behaviors of African-American and Afro-Caribbean women in New York City. **METHODS:** Two-hundred-twenty-one females in 10 Brooklyn-area beauty salons were surveyed in mid-June 2004. Participants completed a 30-item questionnaire (Cronbach's alpha=0.76) focusing on six domains: heart health, breast health, prostate health, second-hand smoke, asthma and sexual health. The instrument included 10 items on preventive behaviors related to the aforementioned domains. Mean knowledge scores were calculated, and analyses were performed to evaluate the factors associated with higher knowledge scores and with greater likelihood of preventive health behaviors. **RESULTS:** Despite a high level of knowledge about risk factors and symptoms for several common diseases, a large percentage of the sample engaged in high-risk behaviors. In addition, higher knowledge scores were associated with family history of heart disease (p=0.035), family history of prostate cancer (p=0.032) and being a member of an HMO (p=0.001). Higher scores, in turn, were associated with not currently smoking (p=0.049) and going for a blood cholesterol screening in the past year (p=0.045). **CONCLUSION:** Future intervention efforts should place greater focus on educating participants about symptoms and risk factors for commonly occurring diseases in the community, and on generating behavioral changes.

29. Stolley MR, Sharp LK, Wells AM, Simon N, Schiffer L. Health behaviors and breast cancer: experiences of urban African American women. *Health Educ Behav* 2006 October;33(5):604-24.

Breast-cancer survival rates are lower among African American women compared to White women. Obesity may contribute to this disparity. More than 77% of African American women are overweight or obese. Adopting health behaviors that promote a healthy weight status may be beneficial because obesity increases risk for recurrence. Studies among White breast-cancer survivors indicate that many make health behavior changes after diagnosis. This cross-sectional pilot study collected quantitative and

qualitative data on the attitudes, beliefs, barriers, and facilitators related to health behavior changes in 27 overweight/obese African American breast-cancer survivors. Results indicated that most participants reported making dietary changes since their diagnosis, and some had increased their physical activity. Focus groups provided rich details on the barriers and facilitators for behavior change. These results begin to address the significant gap in our knowledge of African American breast-cancer survivors' health behaviors and underscore the need for culturally competent health behavior interventions.

30. Naeim A, Hurria A, Leake B, Maly RC. Do age and ethnicity predict breast cancer treatment received? A cross-sectional urban population based study. Breast cancer treatment: age and ethnicity. *Crit Rev Oncol Hematol* 2006 September;59(3):234-42.

PURPOSE: To evaluate the treatment patterns of women aged 55 years or older with newly diagnosed breast cancer and to examine the association between age and ethnicity/race on treatment selection. **METHODS:** A cross-sectional survey between January 1 and June 30, 2001 of 401 women was performed of Hispanic, black and non-Hispanic white women in Los Angeles County, aged 55 years or older with newly diagnosed breast cancer. Regression analysis examined the association between: (a) age and treatment selection and (b) ethnicity/race and treatment selection, adjusting for the effect of possible confounders. **RESULTS:** In this study of urban breast cancer patients (64.1% response rate), blacks were less likely to receive hormone (OR=0.36) or chemotherapy therapy (OR=0.50) while older patients were less likely to receive lymph node dissection after lumpectomy (OR=0.48) and chemotherapy (OR=0.22). **CONCLUSION:** Although there are racial and age disparities in breast cancer treatment, other factors such as education, income status, insurance plan, functional status, and comorbidity also play an important role.

31. Jones R. Sex scripts and power: a framework to explain urban women's HIV sexual risk with male partners. *Nurs Clin North Am* 2006 September;41(3):425-36, vii.

The risk of sexual transmission of HIV may be perceived to be real among young urban women; however, the risk of losing a male partner if one doesn't engage in unprotected sex may be perceived to be greater. Sex script theory, and Barrett's theory of power as knowing participation in change, are integrated into a framework to explain young adult urban women's sex scripted response of unprotected sex as a normative relationship-promoting behavior. It is proposed herein that by associating high-power sex scripts that involve health-promoting behaviors into the familiar sex scripts, new HIV risk-reducing behavior may be integrated into normative sex scripts because these are designed to fulfill familiar relationship needs.

32. Frye V, Manganello J, Campbell JC, Walton-Moss B, Wilt S. The distribution of and factors associated with intimate terrorism and situational couple violence among a population-based sample of urban women in the United States. *J Interpers Violence* 2006 October;21(10):1286-313.

It has been proposed that two distinct forms of intimate partner violence exist: intimate terrorism and situational couple violence. This article describes the distribution of factors that characterize intimate terrorism and situational couple violence, including controlling behaviors, violence escalation, and injury, among a representative sample of 331 physically assaulted women living in 11 North American cities. In addition, respondent, partner, and relationship characteristics associated with each form of violence are identified. Most women who experienced physical assault also experienced controlling behavior by their male partner. In multivariate analyses, respondent's young age, violence escalation in the relationship, partner's access to guns, previous arrests for domestic violence offenses, poor mental health, and previous suicide attempts or threats were associated with intimate terrorism, defined as experiencing one or more controlling behaviors. These results suggest that situational couple violence is rare and that moderate and high levels of controlling behaviors are associated primarily with partner factors.

33. Orr ST, James SA, Garry J, Newton E. Exercise participation before and during pregnancy among low-income, urban, Black women: the Baltimore Preterm Birth Study. *Ethn Dis* 2006;16(4):909-13.

National data demonstrate that Black women have poorer health status, and greater risk of death from chronic diseases, than their White counterparts. Exercise can help prevent chronic disease, and adult Black women are less likely to engage in exercise than White women. However, few data are available about exercise among pregnant Black women. Pregnant Black women were enrolled in this study at hospital-based prenatal clinics in Baltimore, Maryland. Exercise before and during pregnancy were assessed at the first prenatal visit, along with exposure to stressors, depression, John Henryism Active Coping, and behavioral factors such as smoking. Among the 922 women in the sample, approximately three quarters reported engaging in exercise before pregnancy, and two thirds exercised during pregnancy. Most women engaged in non-strenuous exercise during pregnancy (56%) and exercised for \geq 20 minutes at least three times per week (80%). Exercise participation was significantly associated with higher levels of John Henryism Active Coping and lower levels of depression but was not significantly associated with behavioral factors or exposure to stressors. Prior research, based on older women, may have underestimated exercise participation by young Black women. These results suggest that Black women may decrease exercise participation after pregnancy and as they age. Encouraging Black women to continue to exercise as they age may have promising implications for the prevention of chronic diseases.

34. de GR, Leonard NR, Gwadz MV et al. "I thought there was no hope for me": a behavioral intervention for urban mothers with problem drinking. *Qual Health Res* 2006 November;16(9):1252-66.

In this article, the authors evaluate the effects of a behavioral intervention for mothers with problem drinking who were infected with, or at risk for, HIV. They randomly selected 25 mothers from a larger longitudinal randomized controlled intervention trial for a qualitative interview. The authors found that mothers' participation in the program was facilitated by the development of a strong therapeutic alliance with the intervention

facilitator and the use of a harm reduction approach toward alcohol and/or drug abuse. Mothers also reported that training in coping skills and the emphasis on parent-adolescent relationships were beneficial for program engagement and behavior change. The authors conclude from these results that treatment approaches that take into account the complexity of urban mothers' lives and substance use patterns can successfully engage and treat these women at high risk for adverse outcomes.

35. Howard DL, Marshall SS, Kaufman JS, Savitz DA. Variations in low birth weight and preterm delivery among blacks in relation to ancestry and nativity: New York City, 1998-2002. *Pediatrics* 2006 November;118(5):e1399-e1405.

OBJECTIVES: Black women in the United States are more likely to give birth to preterm and low birth-weight infants than their white counterparts, but little is known about variation in birth outcomes within the black population. This study aimed to test the hypothesis that the risk of low birth weight and preterm birth within the black population varies by maternal ancestry and nativity. **POPULATION AND METHODS:** We conducted a retrospective cohort study using New York City birth records. All of the recorded live births to black women occurring in New York City between January 1, 1998, and December 31, 2002 (N = 168,039), were divided into the following self-reported ancestry groups: African, American, Asian, Cuban, European, Puerto Rican, South and Central American (excluding Brazilian), and West Indian and Brazilian. To estimate adjusted risk ratios for low birth weight (weight at birth <2500 g) and preterm birth (gestational age at delivery <37 weeks, based on clinical estimate), we ran 3 models for each outcome, using negative binomial regression and Poisson regression with robust SE estimation. All of the models used blacks reporting American ancestry as the reference group. The first model included ancestry as the primary exposure variable along with covariates that included maternal age, parity, smoking, and education, as well as paternal education and race. Nativity (US- or foreign-born) was included in the second model, and terms representing interaction effects between ancestry and nativity were included in the third model. **RESULTS:** There was substantial variation in risks of preterm birth and low birth weight among the black subgroups, with all of the groups having lower risks than the American black reference group, even after adjusting for maternal risk factors and other covariates. Risk ratios for low birth weight ranged from 0.55 among South/Central Americans to 0.91 among Cubans; risk ratios for preterm birth showed a similar pattern. Nativity was also associated with low birth weight and preterm birth; births to foreign-born women were less likely to be preterm or low birth weight than births to US-born women. Furthermore, nativity effects varied by ancestry group, with foreign-born status inversely associated with poor birth outcomes among South/Central Americans but not among West Indians/Brazilians. **CONCLUSIONS:** Important health differences may be masked in studies that treat black women in America as a homogeneous group and do not take ethnic variation and nativity into account.

Topic D: Urban Drug Use

36. Reyes JC, Colon HM, Robles RR et al. Prevalence and Correlates of Hepatitis C Virus Infection among Street-Recruited Injection Drug Users in San Juan, Puerto Rico. *J Urban Health* 2006 October 31; [Epub ahead of print].

Throughout the world, injection drug users (IDUs) are the group at highest risk for hepatitis C virus (HCV) infection. IDUs residing in the island of Puerto Rico and Puerto Rican IDUs residing in the U.S. mainland have been shown to be at very high risk of infection with HIV. However, the extent to which HCV infection has spread among IDUs in Puerto Rico is not yet known. The aims of this study were to estimate seroprevalence of HCV and to identify the correlates associated with HCV transmission. The sample was drawn through street outreach strategies and was comprised of 400 injection drug users not in treatment, living in the San Juan metropolitan area. HCV and HIV infection were detected by enzyme-linked immunosorbent assay and the results were confirmed by Western blot. Information on sociodemographics, drug use patterns, and risk behaviors was obtained through structured interviews. Bivariate analyses and multivariate logistic regression were used to assess covariates of infection with HCV. The prevalence of HCV infection was 89%. After controlling for sociodemographic characteristics, HCV infection was positively associated with increasing years of injection, injecting in a shooting gallery, tattooing in prison, and self-reported STD infection. Notably, IDUs who had initiated drug injection within the year prior to the study interview had an HCV infection rate of 57%. This study indicates that more aggressive educational programs are urgently needed to reduce the spread of HCV infection among IDUs in Puerto Rico.

37. Hallinan R, Byrne A, Agho K, Dore GJ. Referral for chronic hepatitis C treatment from a drug dependency treatment setting. *Drug Alcohol Depend* 2006 October 24; [Epub ahead of print].

To examine rates and predictors of referral for hepatitis C virus (HCV) treatment and preliminary treatment outcomes in injecting drug users (IDUs) receiving opioid replacement treatment, a prospective clinical audit was undertaken in an inner city Sydney drug dependency treatment practice between December 2002 and November 2005. The majority of IDUs (178/237; 75%) were HCV antibody positive, of whom 170 were HCV treatment naive with no absolute treatment contraindications. Among these 170 patients, 121 (71%) had chronic HCV. Based on risk factors for HCV disease progression, 63 of 121 (52%) chronic HCV patients were targeted for referral; these patients were older, had higher alanine aminotransferase levels and longer estimated duration of HCV infection. Of these 63 patients, 43 were referred to a hepatitis treatment clinic, and 27 attended during the audit period. Patients who attended for treatment assessment were more likely to have genotype 2 or 3 ($p < 0.001$), but socio-behavioural factors were similar. Liver biopsy was performed in 20 patients, with moderate or greater fibrosis in 18 patients. Of 14 patients commenced on pegylated interferon-alpha and ribavirin therapy, one ceased treatment due to non-response, 10

have completed treatment, all with an end-of-treatment (n=4) or sustained virological response (n=6), and treatment is ongoing in three. The development of HCV treatment referral criteria has allowed prioritisation of patients for referral, potentially halving those that require early assessment. Preliminary HCV treatment outcomes are encouraging and highlight the potential for reducing liver disease burden in this patient population.

38. Coffin PO, Latka MH, Latkin C et al. Safe Syringe Disposal is Related to Safe Syringe Access among HIV-positive Injection Drug Users. *AIDS Behav* 2006 October 12; [Epub ahead of print].

We evaluated the effect of syringe acquisition on syringe disposal among HIV-positive injection drug users (IDUs) in Baltimore, New York City, and San Francisco (N = 680; mean age 42 years, 62% male, 59% African-American, 21% Hispanic, 12% White). Independent predictors of safe disposal were acquiring syringes through a safe source and ever visiting a syringe exchange program. Weaker predictors included living in San Francisco, living in the area longer, less frequent binge drinking, injecting with an HIV+ partner, peer norms supporting safe injection, and self-empowerment. Independent predictors of safe "handling"-both acquiring and disposing of syringes safely-also included being from New York and being older. HIV-positive IDUs who obtain syringes from a safe source are more likely to safely dispose; peer norms contribute to both acquisition and disposal. Interventions to improve disposal should include expanding sites of safe syringe acquisition while enhancing disposal messages, alternatives, and convenience.

39. Platt L, Bobrova N, Rhodes T et al. High HIV prevalence among injecting drug users in Estonia: implications for understanding the risk environment. *AIDS* 2006 October 24;20(16):2120-3.

We found a high prevalence of HIV among injecting drug users (IDU) 54% in Tallinn and 90% in Kohtla Jarve, Estonia. Risk factors for HIV in Tallinn included use of the drug 'china white', being registered as an IDU at a drug treatment clinic, and sharing injecting equipment with sex partners. Differences existed in risk behaviour between the cities. An urgent scale-up of HIV prevention is needed. It is also important to explore how local 'risk environments' mediate the risk of HIV transmission.

40. Rhodes T, Kimber J, Small W et al. Public injecting and the need for 'safer environment interventions' in the reduction of drug-related harm. *Addiction* 2006 October;101(10):1384-93.

BACKGROUND: One key structural dimension in the distribution of drug-related harm associated with injecting drug use is the injecting environment. Epidemiological evidence associates elevated blood-borne viral risk with injecting in 'public' and 'semipublic' environments. Yet the quality of evidence on public injecting and related viral risk is variable, and is lacking in many countries such as the United Kingdom. **AIM:** This commentary considers the micro-injecting environment as a critical dimension of risk, exploring the need for 'safer injecting environment interventions'.

METHODS: We draw upon published research evidence and qualitative case examples. **RESULTS:** We note the limits in epidemiological evidence on public injecting and emphasize the need for ethnographic research to determine the 'social relations' of how drug users and risk practices interact with injecting environments. We identify three main forms of 'safer environment intervention': purpose-built drug consumption rooms; interventions within existing spatial relations; and spatial programming and urban design. While drug consumption rooms find evidence-based support, they are not a panacea. We emphasize the potential of interventions embedded within existing spatial and social relations. These include low-cost pragmatic interventions enhancing facilities and safety at public and semipublic injecting sites and, primarily, peer-based interventions, including peer-supervised injecting sites. We caution against spatial programming and urban design interventions which can cause the displacement of socially marginalized populations and the redistribution of harm. **CONCLUSIONS:** Public health interventions in the addictions field have in the past focused upon individual behavioural change at the cost of social interventions and environmental change. We wish to focus greater attention on reducing risks related to public injecting and encourage greater debate on 'safer environment interventions' in harm reduction.

Topic E: Other Vulnerable, At Risk, or Hidden Populations

41. Galvan FH, Bluthenthal RN, Ani C, Bing EG. Increasing HIV testing among latinos by bundling HIV testing with other tests. *J Urban Health* 2006 September;83(5):849-59.

Latinos in the United States are disproportionately impacted by HIV/AIDS. They accounted for 20.4% of the AIDS cases reported in 2003, despite the fact that they represent 13.3% of the civilian non-institutional population of the United States. Thus it is important to identify ways to increase HIV testing among Latinos engaging in high risk behaviors. One approach that has been proposed for increasing HIV testing is the "bundling" of HIV prevention interventions with other relevant services. This study examined whether offering HIV testing with screening for other conditions would increase HIV testing among Latino men who frequent gay bars. A cross-sectional survey of 394 Latino men was conducted at both urban and suburban gay bars. Overall, no statistical differences were found in the number of individuals who took the HIV test or who tested HIV-positive when the HIV test was offered with screening for other conditions (alcohol problems, drug dependence, depression, syphilis, gonorrhea and chlamydia) compared to when it was offered by itself. However, multivariate analysis found that three groups of Latino men were more likely to test for HIV when it was bundled with other tests: those who reported having sex primarily with women, those with other risk factors that could also be tested through a bundled test approach, and those who were clients of the suburban gay bar that was farthest from a large geographical gay community. Further studies of bundled HIV testing should be conducted with other key subpopulations that may be more willing to take an HIV test when it is offered with other relevant tests than when offered by itself

42. Jandorf L, Fatone A, Borker PV et al. Creating alliances to improve cancer prevention and detection among urban medically underserved minority groups: the East Harlem Partnership for Cancer Awareness. *Cancer* 2006 October 15;107(8 Suppl):2043-51.

The East Harlem Partnership for Cancer Awareness (EHPCA) was formed in 1999 to reduce disparities in cancer screening and prevention among medically underserved minorities residing in a large urban community (East Harlem, New York City) by increasing awareness of cancer risk, prevention, and treatment, and promoting greater participation in breast, cervical, colorectal, and prostate cancer screening and early detection. The Partnership augments a 20-year collaboration between an academic medical center, a public hospital, and 2 community health centers. Needs assessments were conducted to inform program development. Cancer education, outreach, and screening programs were developed based on the PRECEED-PROCEED model for health education and health promotion programming. Needs assessments revealed that although the majority of the population (86%) was insured and had a source of primary care, cancer screening guidelines for breast, cervical, prostate, and colorectal cancers were not being followed. Outreach strategies, targeted curricula, educational sessions, and screening programs have been developed and implemented to improve knowledge levels and increase screening participation. The EHPCA is a model of a successful partnership among the public and private sectors to reduce disparities in cancer screening and prevention in a diverse, medically underserved, urban minority community. Future efforts to reduce cancer screening disparities in this population will include patient navigation and improved access to standard-of-care screening such as colonoscopy. *Cancer* 2006. (c) 2006 American Cancer Society

43. Shaw BA, Gallant MP, Riley-Jacome M, Spokane LS. Assessing sources of support for diabetes self-care in urban and rural underserved communities. *J Community Health* 2006 October;31(5):393-412.

The ability of adults with diabetes to manage their illness properly and prevent complications is, in part, a function of support provided by the people and institutions surrounding them. Using data from over 200 adults with diabetes in two medically underserved communities--one urban and one rural--this study examines the self-care specific support provided by four key sources: family and friends, community organizations, one's neighbors and neighborhood, and resources in the wider community. More specifically, this study aims to assess the support needs of adults with diabetes in these communities by estimating their rates of various self-care behaviors, the amount of support provided by key sources, and the associations between support from these sources and adherence to recommended diabetes self-care behaviors. Descriptive findings indicate that close to 40% of the sample failed to report at least moderate levels of adherence, and that physical activity in the rural community, and smoking in the urban community represent particular problem areas. Individuals from the urban sub-sample reported receiving more support from all of the sources assessed. Logistic regression models indicated that one's neighbors and neighborhood resources

appear to have a broad influence on adherence to diabetes self-care behaviors. Support from family and friends, as well as from community organizations, also seems to be important. These results have implications for the design of interventions aimed at bolstering support for diabetes self-care, and point to the need for an enhanced focus on strengthening the social environmental resources of adults with diabetes.

44. Alim TN, Graves E, Mellman TA et al. Trauma exposure, posttraumatic stress disorder and depression in an African-American primary care population. *J Natl Med Assoc* 2006 October;98(10):1630-6.

OBJECTIVE: Trauma exposure is high in African Americans who live in stressful urban environments. Posttraumatic stress disorder (PTSD) and depression are common outcomes of trauma exposure and are understudied in African Americans. African Americans are more likely to seek treatment for psychiatric disorders in a primary care setting. Our study evaluated trauma exposure, PTSD and major depression in African Americans attending primary care offices. **METHOD:** Six-hundred-seventeen patients (96% African Americans) were surveyed for trauma exposure in the waiting rooms of four primary care offices. Those patients reporting significant traumatic events were invited to a research interview. Of the 403 patients with trauma exposure, 279 participated. **RESULTS:** Of the 617 participants, 65% reported > or = 1 clearly traumatic event. The most common exposures were transportation accidents (42%), sudden unexpected death of a loved one (39%), physical assault (30%), assault with a weapon (29%) and sexual assault (25%). Lifetime prevalence of PTSD and a major depressive episode (MDE) among those with trauma exposure (n=279) was 51% and 35%, respectively. The percent of lifetime PTSD cases (n=142) with comorbid MDE was 46%. Lifetime PTSD and MDE in the trauma-exposed population were approximately twice as common in females than males, whereas current PTSD rates were similar. **CONCLUSIONS:** Our rate of PTSD (approximately 33% of those screened) exceeds estimates for the general population. Rates of MDE comorbid with PTSD were comparable to other studies. These findings suggest the importance of screening African Americans for PTSD, in addition to depression, in the primary care setting.

45. Appel A, Everhart R, Mehler PS, MacKenzie TD. Lack of ethnic disparities in adult immunization rates among underserved older patients in an urban public health system. *Med Care* 2006 November;44(11):1054-8.

BACKGROUND: In some settings, immunization rates for ethnic minorities are less than those of non-Hispanic white populations. This study examines demographic differences in the rate of pneumococcal and influenza immunization in an ethnically diverse older patient population seeking care at an urban primary care clinic system. **METHODS:** The setting is an integrated system of 11 federally qualified community health centers serving approximately 100,000 unduplicated patients annually. We linked data from chart audits performed in 2001-2003 for quality assurance purposes with patient registration data to evaluate vaccination rates in 740 patients age 66 years and older who had at least 3 primary care visits in the previous 2 years. **RESULTS:** Factors significantly associated with receipt of pneumococcal vaccination in multivariable

analysis were Hispanic ethnicity (odds ratio [OR] 1.66-1.77, P = 0.01), medical comorbidities (OR 1.48, P = 0.03), psychiatric comorbidities (OR 2.0, P = 0.001), use of a family medicine versus internal medicine clinic (OR 2.3, P < 0.001), and age (OR 1.04 for 1 year increase, P = 0.004). Factors significantly associated with influenza vaccination were having insurance (OR 2.25, P = 0.014), medical comorbidities (OR 1.71, P = 0.036), age (OR 1.03 for 1 year increase, P = 0.045), later year of audit (OR 1.68-1.73, P = 0.015), and a greater number of clinic visits (OR 1.69, P = 0.006). CONCLUSIONS: Among older regular users of our public community health centers, minority populations have equal or higher immunization rates compared with non-Hispanic whites.

Topic E: Disaster Response

46. Schenker JD, Goldstein S, Braun J et al. Triage accuracy at a multiple casualty incident disaster drill: the Emergency Medical Service, Fire Department of New York City experience. *J Burn Care Res* 2006 September;27(5):570-5.

We sought to evaluate the accuracy and speed for the triage of multiple patients during a disaster drill by Emergency Medical Service (EMS) personnel. During a disaster drill (train collision with blast injury and chemical release), the accuracy and speed of triage of 130 patient-actors by the Fire Department of New York City (FDNY) EMS personnel was evaluated using the Simple Triage and Rapid Treatment (START) triage system. All EMS personnel had been previously trained in START, but refresher training was not administered before the drill. Overall triage accuracy was 78%. In patients that had additional changes in their status during the triage process (injects), 62% were retriaged appropriately. Because of security and decontamination procedures, triage at the triage/treatment area began 40 minutes after the drill commenced. It took 2 hours and 38 minutes to completely clear the scene of all patients. On average, the time from the start of triage to transport was 1 hour and 2 minutes. Despite the fact that triage is a skill practiced by every EMS system in the country on a daily basis, few studies regarding triage accuracy are available. Limited data suggest that the triage accuracy rates using different triage strategy algorithms are approximately 45% to 55%. During this drill, FDNY-EMS triage accuracy using the START system exceeded these expectations. This study provides insight as to the triage experience of a large urban EMS system operating at a disaster drill.

47. Kates RW, Colten CE, Laska S, Leatherman SP. Reconstruction of New Orleans after Hurricane Katrina: a research perspective. *Proc Natl Acad Sci U S A* 2006 October 3;103(40):14653-60.

Four propositions drawn from 60 years of natural hazard and reconstruction research provide a comparative and historical perspective on the reconstruction of New Orleans after Hurricane Katrina. Decisions taken over its 288-year history that have made New Orleans so vulnerable to Katrina reflect a long-term pattern of societal response to hazard events--reducing consequences to relatively frequent events, and increasing vulnerability to very large and rare events. Thus Katrina's consequences for New

Orleans were truly catastrophic--accounting for most of the estimated 1,570 deaths of Louisiana residents and \$40-50 billion in monetary losses. A comparative sequence and timing of recovery provides a calendar of historical experience against which to gauge progress in reconstruction. Using this calendar, the emergency post-disaster period appears to be longer in duration than that of any other studied disaster. The restoration period, the time taken to restore urban services for the smaller population, is in keeping with or ahead of historical experience. The effort to reconstruct the physical environment and urban infrastructure is likely to take 8-11 years. Conflicting policy goals for reconstruction of rapid recovery, safety, betterment, and equity are already evident. Actions taken demonstrate the rush to rebuild the familiar in contrast to planning efforts that emphasize betterment. Because disasters tend to accelerate existing economic, social, and political trends, the large losses in housing, population, and employment after Katrina are likely to persist and, at best, only partly recover. However, the possibility of breaking free of this gloomy trajectory is feasible and has some historical precedent.

48. 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* 2006 October 6; [Epub ahead of print].

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.