

Health Care for the Homeless

RESEARCH UPDATE

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Each quarter, research databases are searched for publications related to health care and homelessness. Many of the results from this customized search can also be found in a research database on the HCH Information Resource Center website at www.bphc.hrsa.gov/hchirc/bibliographies. This issue of the HCH RESEARCH UPDATE includes a sample of summaries resulting from the search of publications from (approximately) October –December 2006. Summaries are categorized into themes which vary each quarter.

EMERGENCY DEPARTMENT USE

Title: Health Care Needs of Homeless Adults at a Nurse-Managed Clinic

Authors: Savage CL, Lindsell CJ, Gillespie GL et al.

Source: Journal of Community Health Nursing, 23(4):225-234, Winter 2006.

Summary: Up to 55% of the homeless population report health problems. They often use the emergency department (ED) to obtain care when the health needs are not urgent. Nurse-managed clinics have the potential to reduce nonurgent ED use and improve the health of the homeless. The purpose of this study was to establish baseline health data on homeless persons prior to attending a nurse-managed clinic. This study was a cross-sectional, retrospective health survey of homeless clients at a nurse-managed clinic. A total of 110 participants completed a baseline health survey. Of these, 61% reported that prior to coming to the clinic, they used the ED as a source of health care. The most frequent medical diagnoses reported were substance use disorders, depression, back pain, hypertension, and asthma. Providing care for chronic conditions at a nurse-managed clinic has the potential to improve health and reduce use of the ED.

Title: The Role of the Emergency Department in the Care of Homeless and Disadvantaged Populations

Authors: Morris DM, Gordon JA

Source: Emergency Medicine Clinics of North America, 24(4):839ff, Nov 2006.

Summary: Emergency departments (EDs) provide the only universal health care accessible to the general public in the United States, with well over 100 million patient visits per year. Operating at the critical interface between the hospital and its community, EDs are designed to meet the demands of all patients. Whereas the specific needs of each community will vary, the fundamental approach to delivering emergency care remains the same ~

dedicated health professionals work 24 hours a day, 7 days a week to provide care to all patients, regardless of social circumstance. Because the ED functions as the ultimate health care "safety net," it can have a critical impact on homeless and other disadvantaged populations. This chapter will review the epidemiology of social deprivation among ED patients, with a particular focus on understanding the nature of homelessness. It will then explore the value of an integrated approach to socio-medical care in the ED, and highlight successful ED-based approaches.

Title: Emergency Medicine and the Health of the Public: The Critical Role of Emergency Departments in US Public Health

Authors: Hirshon JM, Morris DM

Source: Emergency Medicine Clinics of North America, 24(4):815-819, Nov 2006.

Summary: This issue of the Emergency Medicine Clinics of North America focuses on the spectrum of public health issues that significantly impact the practice of emergency medicine and which are faced by practicing emergency physicians on a daily basis. Topics include public health research in the emergency department; respiratory threats; emerging infectious diseases; emergency department overcrowding; end-of-life care; racial and ethnic disparities; issues of health promotion and disease prevention encompassing substance abuse, alcohol, and injury and violence; and public health surveillance; and the problems of homeless and disadvantaged patients. This article gives a brief introduction to the important relationship between emergency medicine and public health.

ETHNICITY AND FUNCTIONAL STATUS

Title: Relationship among Respondent Ethnicity, Ethnic Identity, Acculturation, and Homeless Status on a Homeless Population's Functional Status

Authors: Gamst G, Herdina A, Mondragon E, et al.

Source: Journal of Clinical Psychology, 62(12):1485-1501, Dec 2006.

Summary: This study investigated the relationship of homeless status, ethnic identity, respondent ethnicity (African American, Latino, Native American, and Anglo), and Latino, Anglo, and Mexican American orientation on the functional impairment (Behavior and Symptom Identification Scale, BASIS-32: S. V. Eisen, 1996) of 355 homeless men and women who were interviewed in Pomona, California. Multivariate analyses of

variance results indicated that respondent ethnicity was related to several BASIS-32 subscales. Specifically, Anglo and African American homeless adults had greater functional impairment than did Latino or Native American respondents. In addition, high Anglo orientation among chronically homeless Latino respondents, with low ethnic identity was associated with higher levels of functional impairment on the BASIS-32 Psychosis subscale. The implications of these findings are discussed.

EFFECTS OF MENTAL ILLNESS ON CHILDREN

Title: The Mental Health of Children Exposed to Maternal Mental Illness and Homelessness

Authors: Harpaz-Rotem I, Rosenheck RA, Desai R

Source: Community Mental Health Journal, 42(5):437-448, Oct 2006.

Summary: In recent years a number of reports have documented an increase in the number of homeless families in the US. Using a sample of 195 mothers who were veterans of the US armed forces we assessed the association of maternal homelessness and clinical status, with measures of children's mental health, school enrolment and attendance. Although maternal homelessness had no significant association with children's reported emotional problems it had a profound effect on school enrollment and attendance. Mothers' mental health status, history of incarceration and cumulative history of trauma, as well as children's exposure to trauma and their self-esteem were the factors most strongly associated with measures of children's emotional problems. The study suggests that preventive interventions are needed to minimize the effects of exposure to trauma, both in the community and at home, as well as family interventions to address both the mother's and child's emotional and physical needs. A longitudinal study is needed to understand better the association between residential instability and children's mental health.

RESPIRE CARE

Title: Shelter-Based Convalescence for Homeless Adults

Authors: Podymow T, Turnbull J, Tadic V, Muckle W

Source: Canadian Journal of Public Health-Revue Canadienne de Sante Publique, 97(5):379-383, Sep-Oct 2006.

Summary: Homelessness is associated with increased hospital costs and length of stay, and medical or surgical conditions are typically complicated by secondary diagnoses of substance abuse or mental illness. Convalescence care to provide timely treatment has not been analyzed. This is a retrospective study of diagnoses and utility of shelter-based convalescence in a cohort of homeless subjects. A 20-bed shelter-based unit providing up to 3 months stay post hospital discharge, or for treatment of addictions or for those too ill to remain in the general shelter was studied. Charting was by the use of an electronic health record developed for the project. Demographics, reason for admission and outcomes are retrospectively described. 140 men had 181 admissions from July 2000-April 2003; 23.8% were post hospital discharge, 57.4% were from the general shelter. Average length of stay was 40 days. 83.4% were treated for a medical or surgical condition, 83.6% for

psychiatric disease and 29.8% for addictions. Medication adherence was > 80% in the majority. During admission, 20% obtained a new health card, 43.6% a new drug card, 89.3% received transportation to appointments, 60% applied for housing and 24.3% obtained housing. A shelter-based convalescence unit can provide health care to homeless persons, treat medical and mental illness, ensure adherence to treatment regimes, decrease substance abuse and assist with housing.

HOMELESS ADOLESCENTS AND YOUTH

Title: Who Runs? A Demographic Profile of Runaway Youth in the United States

Authors: Sanchez RP, Waller MW, Greene JM

Source: Journal of Adolescent Health, 39(5):778-781, Nov 2006.

Summary: Prevention and treatment programs for runaways have been hindered by an inadequate population profile. Using Add Health data to determine 12-month prevalence and demographic predictors of running away, we found that over 6% of youths reported running away. Running was predicted by biological gender, age, region, urbanicity, and family structure.

Title: Discrimination and Exiting Homelessness among Homeless Adolescents

Authors: Milburn NG, Ayala G, Rice E, Batterham P, Rotheram-Borus MJ

Source: Cultural Diversity and Ethnic Minority Psychology, 12(4):658-672, Oct 2006.

Summary: This article examines how newly homeless adolescents' discrimination experiences were associated with exiting homelessness after 6 months. A sample of 262 homeless adolescents, aged 12 to 20 years, were recruited and followed longitudinally (6-month retention rate = 88%). Discrimination was related to being gay, lesbian, or bisexual (LGB). Discrimination from family was related to exiting homelessness. Other than those who were LGB, adolescents who reported discrimination from their families were more likely to exit homelessness than adolescents who did not report such discrimination. Suggestions for future research include focusing on the experiences of LGB homeless adolescents, the role of families in the lives of homeless adolescents, and other aspects of discrimination, including salience, frequency, intensity, and duration.

Title: Impact of Family Abuse on Running Away, Deviance, and Street Victimization among Homeless Rural and Urban Youth

Authors: Thrane LE, Hoyt DR, Whitbeck LB, Yoder KA

Source: Child Abuse and Neglect, 30(10):1117-1128, Oct 2, 2006.

Summary: Various demographic and familial risk factors have been linked to runaway behavior. To date, there has not been a systematic investigation of the impact of size of community on runaway behavior. This study will compare runaways from smaller cities and rural areas to their urban counterparts. A convenience sample of 602 adolescents was interviewed between 1995 and August of 1996 in Missouri, Iowa, Nebraska, and Kansas, USA.

Multiple regression was used to examine the association between gender, neglect, sexual abuse, physical abuse, geographic and family structure change, and community size of first runaway to predict age at first runaway, deviant subsistence strategies, and street victimization. Findings indicate that adolescents exposed to neglect and sexual abuse ran away sooner and were more likely to be victimized on the street. Rural adolescents who experienced higher levels of physical abuse relied more heavily on deviant subsistence strategies and remained in abusive homes longer than their similarly situated urban counterparts. Rural youth who have been subjected to elevated levels of familial abuse are at greater risk of deviant subsistence strategies, which increase the likelihood of street victimization.

Title: Emotional Distress and Mental Health Service Use among Urban Homeless Adolescents

Authors: Solorio MR, Milburn NG, Andersen RM, Trifskin S, Rodriguez MA

Source: Journal of Behavioral Health Services and Research, 33(4):381-393, Oct 2006.

Summary: 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.

Title: Changes Over Time among Homeless Young People in Drug Dependency, Mental Illness and Their Co-Morbidity

Authors: Rosenthal D, Mallett S, Gurrin L, Milburn N, Rotheram-Borus MJ

Source: Psychology, Health and Medicine, 12(1):70-80, Jan 2007.

Summary: A cross-national survey was conducted among 358 recently homeless young people in Melbourne and Los Angeles. Drug dependence and mental illness were assessed at baseline, 6 and 12 months. At each time point, participants were classified as no condition, drug dependent, having a mental illness or dual condition. Low levels of drug dependence or mental illness or both were reported at each data point. Most young people were

classified as neither drug dependent nor having mental illness at baseline and remained so for the 12-month period and few remained drug dependent, or had continuing mental illness or both. Half to two-thirds of young people classified as having one or both conditions were subsequently reclassified as "no condition". There was no evidence of a consistent pathway from either drug dependence or mental illness to co-morbidity. Most young people reported an absence of mental illness and/or drug dependence at each time point. Improvement from one or both conditions at each transition suggests it may be more effective to provide interventions to address drug dependence and mental health problems to young people early in their experience of homelessness.

INTERNET USE

Title: Internet Access and Use Among Homeless and Indigent Drug Users in Long Beach, California

Authors: Redpath DP, Reynolds GL, Jaffe A, et al.

Source: Cyberpsychology and Behavior, 9(5):548-551, Oct 2006.

Summary: There has been a growing interest in using the Internet to access a variety of populations for prevention education and health care. It is not clear that this is viable for homeless and other marginalized populations. The purpose of this study was to describe Internet access and use among a sample of homeless and indigent drug users. A brief questionnaire was developed to assess computer ownership, use, email, and Internet access and use. Participants were recruited through a community-based human immunodeficiency virus (HIV) prevention program. 265 participants completed the questionnaire. While 55% had ever used a computer in their lifetime, only 25% had ever owned a computer, 24% had ever had their own email account, 33% had access to a working computer in the last 30 days, 10% had sent or received email in the last 30 days, and 19% had surfed or accessed information on the Internet in the last 30 days. Logistic regression predicting lifetime use of a computer showed predictive factors of having completed high school and number of days used amphetamines in the last 30 days, per 5 days of use. Inversely related were age, per 5 years of age and number of days used marijuana in the last 30 days, per 5 days of use. Very low access and usage suggest that Internet-based public health education models be reexamined for this population. The association with amphetamine use may indicate a facilitating effect of amphetamine by heightening awareness and increasing wakefulness.

DIABETES

Title: Low-Income American Indians' Perceptions of Diabetes

Authors: Lautenschlager L, Smith C

Source: Journal of Nutrition Education and Behavior, 38(5):307-315, Sep-Oct 2006.

Summary: This study aims to determine inner city American Indians' perceptions of diabetes; find out how they manage their disease; and identify what health care improvements may be necessary for this population. Eight focus group discussions were conducted with diabetic inner city American Indian adults.

Eligibility criteria include age (\geq 18 years), a self-reported diagnosis of diabetes, and self-identification as inner city American Indian. Participants were screened by telephone to ensure all criteria were met. Forty inner city American Indian men and women participated in 8 focus groups. Focus group discussions were tape recorded and transcribed verbatim. Transcripts were analyzed by coding responses and identifying common themes according to content analysis procedures. Quantitative data from self-administered demographic forms were analyzed. Participants could verbalize information regarding treatment and management of diabetes, but few could apply this information to their own lives. Some participants were homeless or without insurance, which makes successful disease management difficult. Perceptions of the health care system varied; a majority felt the system was meeting their needs, whereas others said it was not adequate. The study identified the need for health care workers to develop a better understanding of how this population lives; doing so could improve patient compliance to treatment. The results may provide direction for the development of culturally specific diabetes education appropriate for low-income patients focusing on the diabetic diet and exercise, and suggesting ways that the patient can move from knowing the information to implementing behavior change.

HCH: ADAPTING CLINICAL PRACTICE

Title: **The Homeless in America: Adapting Your Practice**

Authors: Montauk SL

Source: American Family Physician, 74(7):1132-1138, Oct 1, 2006.

Summary: In 2004, the National Guidelines Clearinghouse placed eight guidelines from the National Health Care for the Homeless Council on its Web site. Seven of the guidelines are on specific disease processes and one is on general care. In addition to straightforward clinical decision making, the guidelines contain medical information specific to patients who are homeless. These guidelines have been endorsed by dozens of physicians who spend a large part of their clinical time caring for some of the millions of adults and children who find themselves homeless each year in the United States. In one guideline, physicians are prompted to keep in mind that someone living on the street does not always have access to water for taking medication. Another guideline points out the difficulty of eating a special diet when the patient depends on what the local shelter serves. As the number of homeless families and individuals increases, family physicians need to become aware of medically related information specific to this population. This can help ensure that physicians continue to offer patient-centered care with minimal adherence barriers.

SHELTERS AND LIFESTYLE FACTORS

Title: **Shelter Environment and Placement in Community Affects Lifestyle Factors among Homeless Families in Minnesota**

Authors: Richards R, Smith C

Source: American Journal of Health Promotion, 21(1):36-44, Sep-Oct 2006.

Summary: This study investigates the impact of the shelter environment and surrounding community on lifestyle factors

influencing the health of homeless families. 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 were low-income parents of children aged 3-12 years (n=53). 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 7-FP market basket prices. 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. 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.

HARM REDUCTION

Title: **Public Injecting and the Need for 'Safer Environment Interventions' in the Reduction Of Drug-Related Harm**

Authors: Rhodes T, Kimber J, Small W, et al.

Source: Addiction, 101(10):1384-1393, Oct 2006.

Summary: 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. This commentary considers the microinjecting environment as a critical dimension of risk, exploring the need for 'safer injecting environment interventions'. We draw upon published research evidence and qualitative case examples. 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. 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.

HOMELESS MOTHERS

Title: *Impact of Adulthood Trauma on Homeless Mothers*

Authors: Zlotnick C, Tam T, Bradley K

Source: Community Mental Health Journal, Dec 2, 2006. [E-pub ahead of print]

Summary: Using the National Survey of Homeless Assistance Providers and Clients (NSHAPC), we found that among homeless mothers (n = 588), those living without their children were more likely to: be older than 35 years, unmarried, have been incarcerated, have been homeless for at least 1 year, and to have used psychiatric medication. Many homeless mothers had histories of childhood trauma, but it was the accumulation of adulthood traumas that was associated with not living with one's children. Without mental health treatment, younger homeless mothers living with their children today may become the homeless mothers living without their children in the future.

MENTAL HEALTH CARE

Title: *Does systems integration affect continuity of mental health care?*

Authors: Durbin J, Goering P, Streiner DL, Pink G

Source: Administration and Policy in Mental Health and Mental Health Services Research, 33(6):705-717, Nov 2006.

Summary: Continuity of care is a concern for mental health clients in the post deinstitutionalization era of community care. A proposed solution is systems integration. This paper reviewed research on systems integration, focusing on continuity of care outcomes. A positive association between systems integration and client continuity of care was consistently demonstrated. Better results were obtained in systems characterized by stronger management arrangements, fewer service sectors, and system wide implementation of intensive case management and centralized access to services. Future research should evaluate a wider range of systems integrating mechanisms, using client-based measures that more directly represent continuity of care experiences.

Title: *Psychotic Disorders Among Homeless Subjects Attending a Psychiatric Emergency Service*

Authors: Cougnard A, Grolleau S, Lamarque F et al.

Source: Social Psychiatry and Psychiatric Epidemiology, 41(11):904-910, Nov 2006.

Summary: Homelessness is an increasing problem among subjects with severe mental illnesses and little is known about the characteristics of homeless subjects with psychosis using emergency psychiatric services. The aims of the present study were to assess the frequency of psychotic disorders among subjects attending a psychiatric emergency service and to explore the

clinical and demographic characteristics of these subjects and the management proposed by the emergency staff. All homeless patients (n = 104) consecutively attending a psychiatric emergency service were included over a 6-month period. Patients were categorised according to ICD-10 diagnoses as presenting with psychotic disorder (schizophrenia and other non-affective psychotic disorders) versus other disorders. A random sample of matched non-homeless controls (n = 71) was included over the same period. Nearly one out of three homeless subjects (32.7%) presented with a psychotic disorder, a higher proportion than that found in non-homeless subjects (15.7%). Compared to non-homeless subjects with psychosis, homeless subjects with psychosis were more likely to be male and to present with drug use disorder. The likelihood of being hospitalised after attending the psychiatric emergency services did not significantly differ between the two groups. Compared to homeless subjects with other psychiatric disorders, homeless subjects with psychosis were more likely to be single, to have a history of psychiatric hospitalisation and presented less frequently with anxiety or depressive symptoms motivating admission. Most homeless subjects with psychosis attending a psychiatric emergency service were already identified as suffering from a severe mental illness, suggesting that homelessness was a consequence of a break in contact with mental health services. Since homelessness is incompatible with the adequate management of psychosis, strategies have to be developed in mental health organisations in combination with outside partnerships, to drastically reduce the frequency of this condition in subjects with psychosis.

Title: *Deliberate Self-Harm Patients of No Fixed Abode - A Study of Characteristics and Subsequent Deaths in Patients Presenting to a General Hospital*

Authors: Haw C, Hawton K, Casey D

Source: Social Psychiatry and Psychiatric Epidemiology, 41(11):918-925, Nov 2006.

Summary: International studies report high rates of deliberate self-harm (DSH) and suicide in the homeless. Little is known about DSH among homeless people in the UK and their subsequent risk of death from suicide and non-suicidal causes. We have carried out a study of no fixed abode (NFA) patients using data collected through the Oxford Monitoring System for Attempted Suicide. We describe the demographic and clinical characteristics of NFA DSH patients and the findings of a mortality follow-up study of a cohort of these patients. Between July 1988 and December 2002, 10,346 persons presented following 17,352 DSH episodes. Of these persons, 374 (3.6%) were of NFA. Compared with domiciled DSH patients, NFA patients were more likely to be male, single, unemployed, to have been a recent victim of violence and violent towards others, to have a criminal record and to have a personality disorder. More NFA patients faced problems with drugs and alcohol, social isolation, finances, the law and housing and had received psychiatric treatment within the previous 12 months. Substantially more NFA patients had a past history of DSH and re-presented with a further episode of DSH within 12 months. In the cohort of DSH patients who presented between

January 1978 and December 1997 and who were followed up until December 2000, mortality from probable suicide and from all causes was approximately double that of domiciled patients. NFA DSH patients are a vulnerable group of patients at high risk of DSH repetition and with increased mortality from all causes. Good liaison between medical and psychiatric services is important. Specialist services may need to be developed to meet the particular needs of this patient group.

Title: Ability of the Behavioral Model to Predict Utilization of Five Services by Individuals Suffering From Severe Mental Illness and Homelessness

Authors: Lemming MR, Calsyn RJ

Source: Journal of Social Service Research, 32(3):153-172, 2006.

Summary: This study examined the ability of the behavioral model to predict utilization of five specific services in a sample of individuals who suffered from severe mental illness and who were homeless at baseline. Nearly 4000 individuals from 18 sites provided data at baseline and 12 months later for this study. Hierarchical logistic regression was used to analyze the data. The behavioral model did not explain much of the variance of utilization of medical services, housing services, and public support. The behavioral model did explain a moderate amount of the variance of utilization of psychiatric services and substance abuse services. Enabling variables explained more of the variance of psychiatric services than either predisposing or need variables. In contrast, predisposing and need variables explained more of the variance of utilization of substance abuse services than enabling variables. Social support from professionals and self-perceived need for service were the most consistent predictors of all of the service utilization variables.

MRSA

Title: Prospective Comparison of Methicillin-Susceptible and Methicillin-Resistant Community-Associated Staphylococcus Aureus Infections in Hospitalized Patients

Authors: Skiest DJ, Brown K, Cooper TW, Hoffman-Roberts H, Mussa HR, Elliott AC

Source: The Journal of Infection, Oct 26, 2006. [Epub ahead of print]

Summary: We sought to determine the proportion of community-associated Staphylococcus aureus infections due to methicillin-resistant S. aureus (CA-MRSA) at a large county hospital. In addition, we sought to identify the demographic and clinical risk factors associated with CA-MRSA infection. Patients were prospectively enrolled if they were admitted to Parkland Hospital and had a positive culture for S. aureus isolated within 72h of admission. The patients were interviewed using a standardized data questionnaire. Data collected included patient demographics, clinical history, as well as health care and non-health care associated MRSA risk factors. Bacterial susceptibilities were verified through review of microbiology laboratory and pharmacy records. Isolates were tested for Panton-Valentine leukocidin (PVL) gene, SCCmec type, and for inducible clindamycin resistance. One hundred and ninety-eight patients were

interviewed prospectively, of which eight had colonization without active infection. One hundred and nineteen patients were infected with MRSA and 71 patients were infected with methicillin-susceptible S. aureus (MSSA). Patients with MRSA were more likely to be African-American and unemployed. Patients with MRSA most commonly presented with a skin or soft tissue infection (SSTI): 69% versus 45%, while patients with MSSA were more likely to have infection of the respiratory tract: 11% versus 3%. Patients with MRSA were more likely to have used antibiotics in the past six months, been homeless, have a history of incarceration, have abused alcohol and have a history of infection with MRSA. In multivariate analysis, African-American race, antibiotics in the past six months, and a history of being homeless were associated with MRSA infection. Only 11 of 119 (9%) MRSA patients did not have at least one of these risk factors. PVL gene was present in 72 of 74 (97%) MRSA isolates and SCCmec type IV was present in 63 of 75 (84%) MRSA isolates. The majority of patients hospitalized with community-associated S. aureus infections were due to MRSA, most of which involved an SSTI. African-American race, recent antibiotics and past homeless status predicted infection with MRSA; however, no clinical profile could reliably exclude MRSA. Clinicians should be aware of the increasing prevalence of CA-MRSA.

VETERANS

Title: Factors Associated with Receipt of Pension and Compensation Benefits for Homeless Veterans in the VBA/VHA Homeless Outreach Initiative

Authors: Chen JH, Rosenheck RA, Greenberg GA, Seibyl C

Source: Psychiatric Quarterly, Nov 11, 2006. (Epub ahead of print)

Summary: Public support payments may facilitate exit from homelessness for persons with mental illness. We examined data from 10,641 homeless veterans contacted from October 1, 1995 to September 30, 2002 in a collaborative outreach program designed to facilitate access to Department of Veterans Affairs (VA) disability benefits. Those who were awarded benefits (22% of contacted veterans) were more likely to report disability, poor to fair self-rated health, and were more likely to have used VA services in the past. Thus, this program achieved only modest success and was most successful with veterans who were already receiving VA services and who might have received benefits even without the outreach effort.

HIV/AIDS

Title: Health Services Utilization for People with HIV Infection: Comparison of a Population Targeted for Outreach with the U.S. Population in Care

Authors: Cunningham WE, Sohler NL, Tobias C, et al.

Source: Medical Care, 44(11):1038-1047, Nov 2006.

Summary: Many persons with HIV infection do not receive consistent ambulatory medical care and are excluded from studies of patients in medical care. However, these hard-to-reach groups are important to study because they may be in greatest need of services. This study compared the sociodemographic, clinical, and health care utilization characteristics of a multisite sample of HIV-

positive persons who were hard to reach with a nationally representative cohort of persons with HIV infection who were receiving care from known HIV providers in the United States and examined whether the independent correlates of low ambulatory utilization differed between the 2 samples. We compared sociodemographic, clinical, and health care utilization characteristics in 2 samples of adults with HIV infection: 1286 persons from 16 sites across the United States interviewed in 2001-2002 for the Targeted HIV Outreach and Intervention Initiative (Outreach), a study of underserved persons targeted for supportive outreach services; and 2267 persons from the HIV Costs and Services Utilization Study (HCSUS), a probability sample of persons receiving care who were interviewed in 1998. We conducted logistic regression analyses to identify differences between the 2 samples in sociodemographic and clinical associations with ambulatory medical visits. Compared with the HCSUS sample, the Outreach sample had notably greater proportions of black respondents, Hispanics, Spanish-speakers, those with low socioeconomic status, the unemployed, and persons with homelessness, no insurance, and heroin or cocaine use. They also were more likely to have fewer than 2 ambulatory visits, more likely to have emergency room visits or hospitalizations in the prior 6 months, and less likely to be on antiretroviral treatment. Nearly all these differences persisted after stratifying for level of ambulatory utilization. In multivariate analysis, several variables showed significantly different associations in the 2 samples (interacted) with low ambulatory care utilization. The variables with significant interactions had very different adjusted odds ratios for low ambulatory care utilization: age greater than 50, Hispanic ethnicity, low income, and heavy alcohol use. Having CD4 count less than 50 was associated with elevated odds of low ambulatory medical visits in the Outreach sample. Compared with HCSUS, the Outreach sample had far greater proportions of traditionally vulnerable groups, and were less likely to be in care if they had low CD4 counts. Furthermore, heavy alcohol use was only associated with low ambulatory utilization in Outreach. Generalizing from in care populations may not be warranted, while addressing heavy alcohol use may be effective at improving utilization of care for hard-to-reach HIV-positive populations.

Title: Sexually Transmitted Infections among Urban Shelter Clients

Authors: Grimley DM, Annang L, Lewis I, Smith RW, Aban I, Hooks T, Williams S, Hook EW

Source: Sexually Transmitted Diseases, 33(11):666-669, Nov 2006.

Summary: Sexually transmitted infections (STIs) remain common in the United States. One contributor to this persistent problem is pockets of infection among persons who may not have regular access to health care, a group that includes those who seek services at shelters. The goals of the study were to: 1) determine the acceptability of STI testing among individuals seeking services at shelters in 2 midsized southeastern cities; 2) evaluate the prevalence of chlamydia, gonorrhea, syphilis, and HIV among these individuals; and 3) assess the proportion that subsequently

learned their test results and received timely and appropriate treatment if warranted. Using a cross-sectional design, 430 individuals between the ages of 19 and 45 seen at 3 shelters in 2 cities were approached for participation. After completing a brief behavioral assessment, each participant provided a urine specimen for Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (GC) testing, blood for syphilis serologic testing, and an oral sample for HIV testing. The overall recruitment rate was 97%. Seventy-eight percent were black with a mean age of 35.1 years. STI prevalence among those reporting sexual activity in the past 2 months was 12.9% in city A and 19.9% in city B. The rate of CT in city B was significantly higher than city A; however, similar rates were found for GC, primary and secondary syphilis, and HIV. Overall, 91.5% of the positive cases learned their test results and were successfully treated. We found that shelter clients were receptive to STI testing, even for HIV, with most positive cases notified and successfully treated.

Title: The Impact of Chronic Hepatitis C on Health-Related Quality of Life in Homeless and Marginally Housed Individuals with HIV

Authors: Tsui JI, Bangsberg DR, Ragland K, Hall CS, Riley ED

Source: AIDS and Behavior, Sep 22. 2006. [Epub ahead of print]

Summary: Although infection with Hepatitis C Virus (HCV) and Human Immunodeficiency Virus (HIV) frequently co-exist, there has been little research to determine the effects of HIV/HCV co-infection on health-related quality of life (HRQOL). We performed a cross-sectional analysis of baseline data from 216 participants enrolled in a community based study of HIV-infected homeless and marginally housed individuals, using multivariable linear regression analysis to determine if co-infection with HCV was independently associated with lower short-form 36 (SF-36) questionnaire scores. We found that individuals with HCV had significantly lower mean SF-36 scores in the domains of physical functioning, bodily pain, social functioning and role limitation due to emotional health, and that HIV/HCV co-infection was independently associated with a lower physical component score but not a lower mental component score after controlling for numerous covariates. These results suggest that co-infection with HCV may have an adverse effect on HRQOL among homeless and marginally housed individuals with HIV.

NALOXONE

Title: Homeless Drug Users' Awareness and Risk Perception of Peer "Take Home Naloxone" Use - a Qualitative Study

Authors: Wright N, Oldham N, Francis K, Jones L

Source: Substance Abuse Treatment, Prevention, and Policy, 1:28, Oct 2006.

Summary: Peer use of take home naloxone has the potential to reduce drug related deaths. There appears to be a paucity of research amongst homeless drug users on the topic. This study explores the acceptability and potential risk of peer use of naloxone amongst homeless drug users. From the findings the most feasible model for future treatment provision is suggested. In-depth face-to-face interviews conducted in one primary care

centre and two voluntary organisation centres providing services to homeless drug users in a large UK cosmopolitan city. Interviews were recorded, transcribed and analysed thematically by framework techniques. Homeless people recognise signs of a heroin overdose and many are prepared to take responsibility to give naloxone, providing prior training and support is provided. Previous reports of the theoretical potential for abuse and malicious use may have been overplayed. There is insufficient evidence to recommend providing "over the counter" take home naloxone" to UK homeless injecting drug users. However a programme of peer use of take home naloxone amongst homeless drug users could be feasible providing prior training is provided. Peer education within a health promotion framework will optimize success as current professionally led health promotion initiatives are failing to have a positive impact amongst homeless drug users.

HOUSING AND HEALTH

Title: Public Health Care Utilization in a Cohort of Homeless Adult Applicants to a Supportive Housing Program

Authors: Kessell ER, Bhatia R, Bamberger JD, Kushel MB

Source: Journal of Urban Health, 83(5):860-873, Sep 2006.

Summary: Supportive housing is subsidized housing with on-site or closely linked services for chronically homeless persons. Most literature describing the effects of supportive housing on health service utilization does not describe use across multiple domains of services. We conducted a retrospective cohort study of 249 applicants to a supportive housing program; 114 (45.7%) were housed in the program. We describe the pattern of service use across multiple domains (housing, physical health care, mental health care, substance abuse treatment). We examine whether enrollment in supportive housing was associated with decreased use of acute health services (emergency department (ED) and inpatient medical hospitalizations) and increased use of ambulatory services (ambulatory medical and generalist care, mental health, and substance abuse treatment) as compared to those eligible but not enrolled. Participants in both groups exhibited high rates of service utilization. We did not find a difference in change in utilization patterns between the two groups [those that received housing (intervention) and those that applied, were eligible, but did not establish residency (usual care group)] comparing the two years prior to the intervention to the two years after. The finding of high rates of maintenance of housing is, in itself, noteworthy. The consistently high use of services across multiple domains and across multiple years speaks to the level of infirmity of this population and the costs of caring for its members.

Title: Sexual Risk among Impoverished Women: Understanding the Role of Housing Status

Authors: Wenzel SL, Tucker JS, Elliott MN, Hambarsoomians K

Source: AIDS Behavior, Dec 8, 2006. [Epub ahead of print]

Summary: HIV/AIDS increasingly affects women, and housing status is important to understanding HIV risk behaviors among women. The goal of this study is to enhance understanding of the

association between housing status and a key sexual risk behavior, having multiple sex partners, by investigating the extent to which housing status differences can be accounted for by hypothesized explanatory factors. In a probability sample of 833 women in Los Angeles, results indicated that homeless African American and Hispanic women had from two to almost five times greater odds than low-income housed women of having multiple sex partners in the past 6 months. These disparities in risk behavior were accounted for by housing status differences in perceived susceptibility to HIV/AIDS, recent victimization by physical violence, drug use severity, and avoidant coping. Findings provide further evidence that interventions should address a multifaceted context of HIV risk for impoverished women.

Title: Long-Term Housing and Work Outcomes among Treated Cocaine-Dependent Homeless Persons

Authors: Kertesz SG, Mullins AN, Schumacher JE, Wallace D, Kirk K, Milby JB

Source: Journal of Behavioral Health Services and Research, Dec 14, 2006. [Epub ahead of print]

Summary: Communities across the United States have initiated plans to end chronic homelessness. In many of these communities, addiction treatment programs remain the default point of entry to housing and services. This study examined the percentage of cocaine-using homeless persons (all with psychiatric distress) attaining stable housing and employment 12 months after entering a randomized trial of intensive behavioral day treatment, plus one of the following for 6 months: no housing; housing contingent on drug abstinence; housing not contingent on abstinence. Of 138 participants, the percentages with stable housing and employment at 12 months were 34.1 and 33.3%, respectively. Analyses suggested superior outcomes in trial arms that offered housing as part of the behavioral treatment. The majority of participants, however, did not achieve housing or employment, in part because of the limited capacity of the local housing programs to accommodate persons who had not achieved perfect abstinence. The findings demonstrate a helpful role for addiction treatment and suggest the need for services to support housing of persons who reduce but do not eliminate all substance use.

END OF LIFE CARE

Title: End-of-Life Care for Homeless Patients: "She Says She is There to Help Me in Any Situation".

Authors: Kushel MB, Miaskowski C

Source: Journal of the American Medical Association (JAMA), 296(24):2959-2966, Dec 27, 2006.

Summary: Homelessness annually affects an estimated 2.3 million to 3.5 million individuals living in the United States. Homeless people face difficulties in meeting their basic needs. Many have substance abuse problems and mental illness, lack social support, and have no medical insurance. These challenges complicate the homeless patient's ability to engage in end-of-life advanced planning, adhere to medications, and find an adequate site to receive terminal care. Employing a multidisciplinary team to care

for homeless patients can help address their needs and improve care. For patients who continue to use illicit substances while receiving end-of-life care, experts recommend scheduling frequent clinic visits, using long-acting pain medications, dispensing small quantities of medications at a time, and using a written pain agreement. Homeless people are less likely to have a surrogate decision maker. Clinicians should have frequent, well-documented conversations with these patients about end-of-life wishes. Homeless people can rarely use hospice services because they lack the financial resources for inpatient hospice and have neither the home nor the social support required for home hospice. Developing inpatient palliative care services at hospitals that serve many homeless people could improve the end-of-life care homeless people receive.

CELLULITIS

Title: Risk Factors for Recurrent Lower Extremity Cellulitis in a U.S. Veterans Medical Center Population

Authors: Lewis SD, Peter GS, Gomez-Marin O, Bisno AL

Source: The American Journal of the Medical Sciences, 332(6):304-307, Dec 2006.

Summary: Despite the frequency of recurrent acute cellulitis of the lower extremities, factors associated with this infection have not been previously assessed in a case-control study among patients admitted to U.S. hospitals. We compared the clinical characteristics of 47 patients with those of 94 age- and sex-matched control subjects admitted to the Miami Veterans Affairs Medical Center. In a multivariate analysis, two physical factors, lower extremity edema and body mass index, one behavioral factor, smoking, and one demographic factor, homelessness, were significantly and independently associated with recurrent cellulitis. The latter two factors have not previously been reported to be independently associated with cellulitis. Our results suggest that increased emphasis on weight loss, smoking cessation, and improved foot hygiene in the homeless might decrease recurrences of lower extremity cellulitis.

ARTHROPOD-BORNE DISEASES

Title: Arthropod-Borne Diseases in Homeless

Authors: Brouqui P, Raoult D

Source: Annals of the New York Academy of Sciences, 1078:223-235, Oct 2006.

Summary: Homeless people are particularly exposed to ectoparasite. The living conditions and the crowded shelters provide ideal conditions for the spread of lice, fleas, ticks, and mites. Body lice have long been recognized as human parasites and although typically prevalent in rural communities in upland areas of countries close to the equator, it is now increasingly encountered in developed countries especially in homeless people or inner city economically deprived population. Fleas are widespread but are not adapted to a specific host and may occasionally bite humans. Most common fleas that parasitize humans are the cat, the rat, and the human fleas, *Ctenocephalides felis*, *Xenopsylla cheopis*, and *Pulex irritans*, respectively. Ticks belonging to the family Ixodidae, in particular, the genera

Dermacentor, *Rhipicephalus*, and *Ixodes*, are frequent parasites in humans. *Sarcoptes scabiei* var. *hominis* is a mite (Arachnida class) responsible for scabies. It is an obligate parasite of human skin. The hematophagic-biting mite, *Liponyssoides sanguineus*, is a mite of the rat, mouse, and other domestic rodents but can also bite humans. Finally, the incidence of skin disease secondary to infestation with the human bedbug, *Cimex lectularius*, has increased recently. Bacteria, such as *Wolbachia* spp. have been detected in bedbug. The threat posed by the ectoparasite in homeless is not the ectoparasite themselves but the associated infectious diseases that they may transmit to humans. Except for scabies all these ectoparasites are potential vectors for infectious agents. Three louse-borne diseases are known at this time. Trench fever caused by *Bartonella quintana* (*B. quintana*), epidemic typhus caused by *Rickettsia prowazekii*, and relapsing fever caused by the spirochete *Borrelia recurrentis*. Fleas transmit plague (*Xenopsylla cheopis* and *Pulex irritans*), murine typhus (*Xenopsylla cheopis*), flea-borne spotted rickettsiosis on account of the recently described species *Rickettsia felis* (*C. felis*), and occasionally cat scratch disease on account of *Bartonella henselae* (*C. felis*). The role of fleas as potential vector of *B. quintana* has recently been suggested. Among the hematophagic-biting mites, *L. sanguineus*, is responsible for the transmission of *Rickettsia akari*, the etiologic agent of rickettsialpox. Virtually, no data are available on tick-borne disease in this population. This article will deal with epidemiology, diagnosis, prevention, and treatment of these ectoparasite and the infectious diseases they transmit to the homeless people.

U.S. CONFERENCE OF MAYORS REPORT 2006

Note: The following reference is not for a peer-reviewed publication, but may be of interest to readers.

Title: Hunger and Homelessness Survey 2006 - A Status Report on Hunger and Homelessness in America's Cities: A 23-City Survey

Authors: U.S. Conference of Mayors

Source: The full report can be accessed online at <http://www.usmayors.org/uscm/hungersurvey/2006/report06.pdf>

Summary: This report includes information on: 1) the demand for emergency food assistance and emergency shelter and the capacity of local agencies to meet that demand; 2) the causes of hunger and homelessness and the demographics of the populations experiencing these problems; 3) exemplary programs or efforts in the cities to respond to hunger and homelessness; 4) the availability of affordable housing for low income people; and 5) the outlook for the future and the impact of the economy on hunger and homelessness.