



habitually sleep less than 6 hours at night can manage to sleep longer without taking medication, and whether those who succeed lose weight. Researchers also will assess whether additional sleep lowers prevalence of the metabolic syndrome and alters levels of appetite-control hormones (http://clinicalstudies.info.nih.gov/detail/A_2006-DK-0036.html).

“This is a proof-of-concept study,” said Giovanni Cizza, MD, PhD, the study’s principal investigator and staff clinician in the clinical endocrine section of the NIDDK. The researchers plan to enroll approximately 150 men and premenopausal women aged 22 to 50 years (100 in the intervention group and 50 controls), living in the Baltimore-Washington metropolitan area.

They also hope to enroll the participants’ partners. Participants will be randomly assigned to either try to increase their sleep up to a limit of 7.5 hours or continue to sleep their usual amount.

“Even if only a modest change in BMI occurs,” Cizza said, “that finding would have a huge impact from a population perspective.” □

Chronic Homeless in Intervention Spotlight

Mike Mitka

THE PANHANDLER ASKING FOR 50 cents or the guy sleeping in a cardboard box under a viaduct may cause most people to avert their eyes and ask themselves about why something cannot be done to help get the homeless off the street. The question seems apt, given that the 40 000 programs in the United States currently offering assistance to the approximately 2 million adults and 1 million children considered homeless have done little to reduce those numbers.

But a few years ago, some researchers, government agencies, and advocates for the homeless began to take a hard look at the data involving the homeless. What they uncovered surprised them and gave hope that a partial solution could be initiated by targeting those for whom homelessness was more than a transient problem.

Studies conducted in the United States have revealed that the 10% of homeless individuals who are considered the chronic homeless—those who are homeless for more than 1 year or have 4 or more homeless episodes over 3 years—cost society millions of dollars for emergency medical services, psychiatric treatment, detoxification, shelter use, and law enforcement. Most have mental health and alcohol abuse problems. Researchers reasoned that if the chronic homeless were given intensive intervention that included some form of stable, safe housing, the savings

created from curbing the huge costs generated by these individuals could be used to help the other homeless individuals.

DISPROPORTIONATE COSTS

Beginning in the 1990s, researchers began to document such costs and investigate whether interventions targeting the chronic homeless can save money. For example, in 1997, James V. Dunford, MD, medical director of the San Diego Emergency Medical Service, recorded the hospital and ambulance billings created by 15 chronic homeless men living in his city and found they had run up \$1.5 million in costs.

This revelation helped the city’s police department to create an initiative called the Serial Inebriate Program, which assists homeless individuals caught in the revolving door between jail, emergency departments, and de-

toxification centers. These are individuals (92% men) who have been picked up by police 5 times within a 30-day period for public intoxication. They are offered an opportunity to participate in a group residential treatment site or to serve jail time. To measure the impact of the Serial Inebriate Program, Dunford and colleagues performed a retrospective review of health care utilization records of those who had gone through the program from 2000 to 2003.

Out of a population of 529 individuals, 156 accepted admission into the program. The use of emergency medical services, emergency departments, and inpatient services fell by 50% for those choosing treatment, resulting in an estimated decrease in total monthly charges of \$5662 in emergency medical services, \$12 006 in emergency departments, and \$55 684 in inpatient services. In contrast, there was no change



Government agencies are targeting efforts to place those considered chronically homeless into stable housing as a way of cutting the millions of dollars annually spent on health care, shelter, and law enforcement expenses for these individuals.



in service use patterns for those who refused treatment (Dunford JV et al. *Ann Emerg Med.* 2006;47:328-336).

“Society had given up on these people,” said Dunford, who is also professor of clinical medicine and surgery at the University of California-San Diego Medical Center. “But something can be done.”

Dunford’s research builds on the work of Dennis Culhane, PhD, codirector of the Cartographic Modeling Laboratory and professor of social welfare policy at the University of Pennsylvania in Philadelphia, who was among the first to conduct rigorous research on longitudinal shelter-tracking databases. In the 1990s, Culhane realized that providing shelter for the approximately 2500 chronic homeless individuals in New York City was costing the city about \$25 000 a year each—and that did not include the many thousands of dollars in emergency medical care and other services (Kuhn R et al. *Am J Community Psychol.* 1998;17:23-43).

“The fact is in any community you can find homeless people costing \$60 000 to \$70 000 in services every year for whom putting them into stable housing will offset those costs,” Culhane said.

Culhane’s work served as an inspiration for Philip F. Mangano, executive director of the United States Interagency Council on Homelessness, which is the federal government’s response to the problem. Mangano has been crossing the country to persuade communities, more than 200 so far, to sign onto the council’s 10-year plans that call for elimination of homelessness based on addressing chronic homelessness (<http://www.ich.gov>). Mangano said the work of Culhane, Dunford, and others has brought rigor to discussions about homelessness.

“What has plagued homeless policy in the past was its nonscientific basis and its reliance on conjecture, hearsay, and feelings,” Mangano said. “What we’ve done is unearthed evidence-based research that allows us to make policy and provide investment in these projects.

BAROMETER OF SUCCESS?

But focusing on cost savings as a barometer of success has drawn criticism from various quarters. Some citizens argue that it is unfair to give subsidized housing and special treatment to “those people” when others are working three jobs to pay for an apartment. And advocacy groups for the homeless worry that targeting resources to help the chronic homeless will take money away from helping the vast majority of homeless people.

Mangano says such arguments fail to take into account the net benefits such an approach will yield to society. “These are disabled people who are very expensive to the public purse,” he said. “We can move them to supported housing, help in their recovery, and get them stable. Some people may feel ‘they’ don’t ‘deserve’ this help, but the taxpayers deserve other solutions.”

As for leaving the majority of the homeless without access to federal dol-

lars, critics have not done their homework, Mangano said.

The initiative to target the chronic homeless is a priority, but not to the exclusion of helping those who experience transient homelessness, Mangano said, noting that about half of the \$1.3 billion of the Department of Housing and Urban Development’s funds for the homeless went for helping homeless families.

“If you’re really trying to make a difference, you take your modest resources and invest it in intelligent action,” explained Mangano, who said his ultimate goal is the elimination of all homelessness. “What you do is create change in often the most intractable problem. And when you do, you remoralize people into knowing that change is possible on the big social issues—if we can change the lives of the chronic homeless, then we can help anyone who is homeless.” □

Genome Provides Clues on Addiction

Bridget M. Kuehn

SCIENTISTS SCOURING THE HUMAN genome for addiction-related genes have identified new links between an individual’s genetic makeup and their risk of becoming dependant on opioids.

While epidemiological studies have provided strong evidence of a genetic component to an individual’s risk of becoming dependent on opioids, finding the precise genetic roots of the addiction has proved difficult. Some scientists are seeking an answer by using information about the disorder’s molecular basis to identify candidate genes. But this approach is unlikely to provide an exhaustive list of genes related to the disorder, so scientists also are scanning the entire genome in the hopes of finding genes that may play a less obvious role in opioid dependence.

A team of scientists from 7 institutions in New England and 1 in South Carolina has used this technique to find clues to genes playing a role in opioid dependence by searching the genomes of nearly 400 families with at least one individual who was dependent on opioids (Gelernter J et al. *Am J Hum Genet.* 2006;78:759-769). Their findings point to a few regions in the genome that appear to modulate an individual’s risk of developing opioid dependence.

“We knew based on genetic epidemiology studies like twin studies that the genes had to be there, but a strong genetic linkage provides additional support for the importance of genetic defects [in opioid dependence],” said Joel Gelernter, MD, professor in the department of psychiatry at Yale University School of Medicine in New Haven, Conn.