Neighborhood Ethnic Density Associated with Risk of Psychosis Among Immigrants in The Netherlands

In a study on neighborhood ethnic density, collaborating researchers from the Mailman School and The Hague, Netherlands, report that immigrants who live in neighborhoods where their own ethnic group comprise a small proportion of the population are at increased risk for certain psychotic disorders. The findings confirm the potential importance of environment and social experiences that may contribute to these disorders, including schizophrenia, one of the leading causes of long-term disability. The study underscores the necessity for public health clinicians to pay attention to the mental health needs of immigrants, and highlights the importance of cultural sensitivity when treating immigrant and minority patients. The paper is published in the January 2008 issue of the *American Journal of Psychiatry*.

The team conducted diagnostic interviews with individuals living in The Hague, Netherlands who contacted a physician for a suspected psychotic disorder over a seven-year period (1997-1999 and 2000-2005). The results were then analyzed by ethnicity and neighborhood of residence. A "high ethnic density" neighborhood was defined as one in which 65 percent of the population was immigrant; because immigrant communities in the Netherlands tend to cluster in the same areas, those neighborhoods were also ones in which the proportion of any one immigrant's ethnic group was substantial. All other neighborhoods were defined as "low ethnic density." Compared with native Dutch, the incidence of psychotic disorders for first and second generation immigrants from Morocco, Surinam, and Turkey living in The Hague was significantly increased in low ethnic density neighborhoods. Immigrant populations in these neighborhoods had psychotic disorders more than two times the rate of immigrants living in high ethnic density neighborhoods. While the findings were consistent for all three ethnic groups, Moroccans had the highest incidence of schizophrenia in both high and low density neighborhoods.

A landmark U.S. study in the 1930s reported higher hospital admission rates for schizophrenia among ethnic minorities who lived in neighborhoods with a low proportion of persons belonging to their own ethnic group. "It now appears they may have been right; it matters where you live," said Ezra Susser, MD, DrPH, chair of the Department of Epidemiology, research scientist at the New York State Psychiatric Institute, and co-author of the study. "Increasingly, investigators suspected that the social experiences of immigrant groups after migration contribute to their elevated risk. However, until this body of research-large enough to examine the incidence of psychotic disorders for immigrant groups within a single urban area-few studies had the data to
confirm that increased incidence of psychotic disorders among immigrants depended strongly on neighborhood context," noted Dr. Susser.

The researchers also adjusted for single marital status, which has been associated with higher rates of schizophrenia, particularly in neighborhoods with fewer single-person households. "Results remained statistically significant, indicating that the ethnic density effect cannot be attributed to a greater probability of single marital status among individuals living in low-ethnic-density neighborhoods," according to Hans Wijbrand Hoek, MD, PhD, adjunct professor of Epidemiology at the Mailman School and senior author.

Neighborhood ethnic density was assessed and investigated at the time of first treatment contact. In future studies, the researchers suggest it might be feasible to collect data on neighborhood context in childhood and adolescence. This approach could be used to determine the developmental period during which neighborhood ethnic density is most important.