Ecological Attributes of High and Low Rate Mental Hospital Utilization Areas in Chicago

LEO LEVY
Department of Preventive Medicine and the College of Nursing, University of Illinois at the Medical Center, Chicago, Illinois, U.S.A.

LOUIS ROWITZ
Illinois State Pediatric Institute, Chicago, Illinois, U.S.A.

Summary. In this paper, the ecological characteristics of the five highest utilization mental hospital community areas in Chicago are contrasted with the five lowest mental hospital utilization areas. The selection of areas was based on data relating to 10,653 people who were admitted to both public and private inpatient mental institutions from July 1, 1960 to June 30, 1961. It was found that the areas which have a low utilization rate were quite homogeneous in their demographic makeup. They were primarily white lower middle class communities with a large proportion of blue collar workers. Social problems seemed to be at a minimum in these areas. High rate areas were quite heterogeneous in social composition including mixtures of different classes and ethnic groups. The high rate areas also had a number of social problems which included high juvenile delinquency, high rates of illegitimacy, and large numbers of people on public assistance.

Résumé. Dans ce travail, on compare les caractéristiques écologiques des cinq zones de Chicago dans lesquelles le taux d'utilisation de l'hôpital psychiatrique est le plus élevé aux cinq zones de Chicago dans lesquelles le taux d'utilisation est le bas. Les deux des zones a été fait d'après les données concernant 10,653 personnes admises dans les institutions psychiatriques hospitalières, tant publiques que privées, entre le 1er juillet 1960 et le 30 juin 1961. On a trouvé que les zones dont le taux d'utilisation est bas étaient assez homogènes dans leur composition démographique. Elles comprenaient principalement des communautés blanches de classe moyenne-inférieure avec une importante proportion d'ouvriers salariés. Les problèmes sociaux semblaient être réduits au minimum dans ces zones. Les zones à taux d'utilisation élevé présentaient un certain nombre de problèmes sociaux, dont une importante délinquance juvénile, une forte proportion de naissances illégitimes et un grand nombre de personnes à l'assistance publique.

The principal problem in doing studies of incidence or prevalence of mental illness is the issue of what constitutes a mental illness. Dohrenwend and Dohrenwend report on twenty-six such studies registering a range from a low 0.8% to a high of 64.0% of the population reported with a psychological disorder [1]. Clearly, the definition of the morbid condition under investigation is crucial to any epidemiological investigation.

One way of handling this problem is to define the incidence or prevalence figure by some concrete external attribute. In the present study, this is done...
by utilizing the fact of hospital admission as the external attribute. The advantages here are several. First, the fact of admission to a psychiatric service of a hospital is unambiguous. Second, there is little argument that such an admission reflects an episode of major mental illness (however diagnosed). A third advantage is more abstract and needs some discussion. All modes of care short of full-time hospitalization tend to reflect to a great extent individual choice. Admission to a mental hospital implicates the community. Specifically, the rate of admission to hospitals for mental illness is more affected by community characteristics than are other forms of treatment [2, 3]. This is of especial relevance to this paper because we are attempting to define attributes of communities which relate to high and low mental hospital admission rates.

The major disadvantage of using hospital admission as an index of incidence or prevalence is that it represents a minimal estimate of mental disorder in the community referring to selected cases of severe mental disorder and omitting perhaps the bulk of disorders in the community. However, within the constraints of the present study, this is considered a tolerable limitation.

**Research Design**

The present study addresses itself to a study of the characteristics of five low rate unduplicated admission areas and five high rate unduplicated admission areas in the city of Chicago. Unduplicated admissions refer to the number of people admitted during a given time period rather than the total number of admissions during that same time period. Thus a person admitted more than one time during the study period would still be counted only once by this measure. Another significant category referred to in this paper is first admissions which record an admission only if it is the first time that a patient has ever been admitted to any psychiatric inpatient service. Areas refer to community areas in the city of Chicago as defined by the Social Science Research Council of the University of Chicago in the 1930's [4].

The unit for demographic analysis utilized in this study is the Chicago community area. This has been conventional research procedure for the past several decades and is still felt to be a useful breakdown. However, it should be indicated that as time goes on these community areas as originally defined are losing meaning and eventually will probably fall into disuse. This has to do simply with the fact that the city population is mobile and the physical face of the city is being continuously changed by large-scale urban renewal efforts, erection of expressways, etc. The problem of how to define "community" remains a difficult and unresolved one.

The data for this study was collected from July 1, 1960 to June 30, 1961. It includes 10,653 Chicago residents admitted to 44 Illinois State mental hospitals, psychiatric units of general hospitals, and private mental hospitals and sanitarium. The only significant category of hospital admissions not counted is VA hospital admissions. A small number of persons seeking aid outside the State were also missed.

High rate areas are those areas with an unduplicated admission rate of over 400 per hundred thousand population during the study period. Six areas had a rate of over 400 (see Figure 1). It was decided to exclude the Loop (Community Area 32) from the analysis because it is a highly unusual area with an astonishing admission rate of 5510/100,000; a rate some 18 times the city average [5]. The Loop is the central business district in Chicago. Residentially, the area is quite transient and highly mobile. It includes the major hotels in Chicago as well as a skid row area. The high rate areas include three areas surrounding the Loop. These areas are Near North Side (C.A. 8), Near West Side (C.A. 28), and Near South Side (C.A. 33). The two remaining areas are lakefront community areas—Uptown (C.A. 3) on the north side of the city and Hyde Park (C.A. 41) on the south side of the city.

Low rate areas refer to community areas with an admission rate of under 150 per 100,000 population. As can be seen in Figure 1, these areas tend to be on the outlying perimeters of the city (semisuburban). The low rate areas are Norwood Park (C.A. 10) on the north and West Pullman (C.A. 53), Hegewisch (C.A. 55), Clearing (C.A. 64), and Ashburn (C.A. 70) on the south side of the city.

**Previous Findings**

Before discussing the findings of the present study, it is worthwhile to present some of the previous findings of the major research project of which the present study is a part. The findings are as follows [5, 6, 7]:

1. Schizophrenia, alcoholic psychoses, and senile psychoses were found to be associated with socially unstable communities in general and with low socioeconomic status in particular.

2. Manic-depressive psychoses and psychosomatic, psychoneurotic, and personality disorders seem to be related to more stable communities of higher socioeconomic status.

3. The most profound spatial patterning for mental hospital admissions occurs with the schizophrenic unduplicated admissions. This strong patterning does not occur for first admission schizophrenics who can come from any area of the city, whereas unduplicated mental hospital schizophrenic admissions tend to come from the poorer areas.

4. The percentage of elderly people in a community area does not seem to be related to utilization of inpatient facilities by patients diagnosed as senile or arteriosclerotic. Income is a more crucial variable.