

First Admissions to Ohio Mental Hospitals for Mental Diseases of the Senium, 1958-61

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AMONG first admissions to U.S. public mental hospitals in 1960, 24 percent of the patients were 65 years of age or older. Of these aged patients, 80 percent were diagnosed as having mental diseases of the senium. This diagnosis ranks close to schizophrenia, the leading illness among U.S. mental hospital patients never previously admitted to a psychiatric facility (1).

Definitive information on the characteristics of the aged mentally ill was previously reported from the results of a 1948-52 study of first admissions to public mental hospitals in Ohio (2). This report presents a subsequent comparative analysis of 4,443 patients diagnosed as having diseases of the senium on their first admission to these Ohio hospitals during the 3½ years from July 1958 to December 31, 1961. The earlier study centered on the 1950 census; this study centered on the 1960 census.

The diagnosis was assigned to these patients according to the classification in the 1952 revision of the American Psychiatric Association's diagnostic and statistical manual. Mental diseases of the senium comprise two classifications: chronic brain syndrome associated with (a) cerebral arteriosclerosis (15.0) and (b) senile brain disease (17.1). Of the 4,443 patients in this study, 82.9 percent had cerebral arteriosclerosis and 17.1 percent had senile brain disease. The corresponding 1960 national percentages were 66.3 and 33.7. Although the re-

vised diagnostic classification does not restrict mental diseases of the senium to a psychotic disorder as did the previous classification, more than 90 percent of 4,443 patients were so classified on admission to the Ohio hospitals during the study period.

Methodology

Each patient was classified by age, sex, marital status, race, county of residence, education, and occupation according to Census Bureau definitions. The population data used as the basis for rate computations were those published by the Census Bureau for Ohio as of April 1, 1960. The rates are average annual per 100,000 population. To minimize bias due to age in the detailed analysis, rates were based on number of admissions and population 45 years of age and older. Age-adjusted rates were also computed.

The 88 counties in Ohio were classified as to whether they were (a) metropolitan or non-metropolitan, according to Census Bureau definitions, and (b) counties with high or low rates of first admissions for patients with diseases of senium. The metropolitan-nonmetropolitan delineation was based on the concept of standard metropolitan statistical areas used by the Census Bureau. A standard metropolitan statistical area (SMSA) is defined as: "A county or group of contiguous counties containing at least one city of 50,000 inhabitants or more or 'twin cities' with a combined population of at least 50,000. In addition to the county or counties containing such a city or cities, contiguous counties are included in an SMSA if, according

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to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city" (3).

Because this study was concerned with Ohio only and the SMSA classification was adopted to distinguish between the population living in and around the large urban centers and the more isolated populations in the State, certain counties in SMSA's which crossed State lines were classified as nonmetropolitan if the Ohio portion did not contain the central city or cities of 50,000 or more inhabitants. The counties were also divided into areas of high and low first admission rates for diseases of the senium. The metropolitan counties with lower age-adjusted rates than median-age-adjusted rates comprised the low rate area, and those with higher age-adjusted rates comprised the high rate area. The same procedure was used to differentiate the nonmetropolitan counties. Thus, four geographic areas resulted. These were designated A, B, C, and D, as shown in table 1.

Findings

Residence. The age-adjusted nonmetropolitan rate was 14 percent higher than the metropolitan rate. This significant difference in rates ($P < 0.01$) is a reversal of the 1950 results, which showed substantially higher rates in the metropolitan area. A marked decrease in admission rates from metropolitan areas accounted for an overall decrease in rates for

mental diseases of the senium in Ohio. For the entire State, however, the number of admissions remained practically constant: 1,263 average annual first admissions during 1958-61 and 1,260 during 1948-52.

A summary of selected population characteristics for the areas A, B, C, and D is shown in table 2. It was thought that community rate differences might be reflected in community population differences; however, no outstanding or consistent differences were noted in the population characteristics of communities comprising area A which would account for its much higher admission rates than area B or for nonmetropolitan area C when compared with area D.

A possible explanation for part of the differences in area rates might be the availability of other psychiatric facilities (table 3). It may be hypothesized that the higher nonmetropolitan rates are a result of (a) a lack of other psychiatric hospital resources in the nonmetropolitan area, and (b) an increase in State hospital facilities in the area. An exorbitant rate increase was observed for a county with a State mental hospital which opened after 1950. Further, many of the high-rate nonmetropolitan counties contained State mental hospitals or were adjacent to such counties.

In a study of geographic variations in first admission rates to Warren State Hospital, Pa., Person discovered an increasing rate pattern as distance away from the hospital decreased for

Table 1. Average annual first admission rates per 100,000 population to Ohio public mental hospitals for mental diseases of the senium, by geographic grouping of counties, July 1, 1958-December 31, 1961

Geographic grouping	Number of counties	Population aged 45 and over, as of April 1, 1960	Average annual first admissions		
			Number	Rates	
				Crude	Adjusted
Metropolitan.....	16	1, 857, 714	749	40. 3	43. 1
A. High rates.....	8	1, 364, 815	651	47. 7	50. 9
B. Low rates.....	8	492, 899	98	19. 9	21. 3
Nonmetropolitan.....	72	934, 927	514	55. 0	49. 1
C. High rates.....	36	485, 546	399	82. 2	72. 5
D. Low rates.....	36	449, 381	115	25. 6	23. 4

Table 2. Selected population characteristics for metropolitan and nonmetropolitan areas in Ohio, 1960

Characteristics	Metropolitan		Nonmetropolitan	
	A	B	C	D
Population per square mile.....	1, 293. 8	534. 6	91. 9	96. 7
Median family income (in dollars).....	6, 605. 0	6, 520. 0	5, 239. 0	5, 559. 0
Median school years completed.....	11. 0	11. 1	10. 1	10. 8
Median age.....	30. 4	28. 3	29. 6	27. 7
	Percent			
Family income under \$3,000.....	12. 9	12. 8	23. 3	19. 4
Laborers among employed.....	7. 0	5. 9	8. 5	7. 1
Age 65 years and over.....	9. 0	7. 9	11. 0	9. 8
Nonwhite.....	12. 4	8. 3	2. 5	1. 6
Foreign-born.....	6. 1	3. 1	2. 0	1. 5
Urban population.....	91. 7	81. 3	44. 6	39. 6
Rural nonfarm population.....	7. 6	16. 1	42. 7	45. 5
Rural farm population.....	. 7	2. 6	12. 7	14. 9
Increase in population 1950-60:				
Total.....	22. 7	30. 6	9. 7	25. 0
White males.....	18. 5	28. 0	8. 3	24. 0
White females.....	19. 8	29. 5	10. 2	25. 8
Nonwhite males.....	55. 0	51. 9	23. 3	33. 6
Nonwhite females.....	57. 8	59. 1	30. 8	36. 7
Age 14 years and over and married.....	68. 0	70. 6	68. 1	70. 0

patients with diseases of the senium (4). The impact of other psychiatric resources, which may well funnel off would-be State hospital patients, will be examined in a later analysis of admissions to these facilities.

Age, sex, and color. More than one-half of the patients who were 55 years of age or older had diseases of the senium. Generally, the rates increased rapidly with advancing age. Among white men from nonmetropolitan areas the rate was higher in every age group, yet little difference was seen among the rates for white women with respect to residence (table 4 and fig. 1).

The admission rates for white or nonwhite men were higher than those for women, with greater relative differences in the nonmetropolitan area. This finding of higher rates for men was consistent with that of the previous study. The phenomenon of higher admission rates for men with diseases of the senium is in keeping with their overall higher morbidity and mortality rates. Retirement and lessening of activity may have a greater impact on men than on women who are accustomed to being at home.

That this may possibly explain the higher rates for men was indicated in the 1950 study which revealed substantially lower age-adjusted admission rates for housewives than for employed women.

The rates for nonwhites were more than double the rates for whites for both sexes. Higher admission rates among nonwhites have been a consistent finding in many analyses of admissions to State hospitals. That disproportionate use of psychiatric facilities exists between the races is a major hypothesis which will be tested in a subsequent analysis of data from a variety of other psychiatric resources. That aged nonwhite persons are more likely to be hospitalized in public mental facilities is indicated by the fact that in 1958 only 4 of some 600 proprietary homes for the aged, licensed by the State, accepted Negroes (5). Another possible explanation for the higher rates of nonwhites is that because of their marginal economic status they cannot afford the cost of home care from an outside source. Usually other members of the family are employed or seeking employment.

Further, persons in the lower economic strata generally suffer more illnesses.

Education. When adjusted for age, the highest rates of admission occurred among persons with at most an elementary school educa-

tion, and generally rates were lower among those with more education (table 5). The occurrence of higher rates for those completing a level of education as opposed to those who did not may possibly result from an inclination to "round

Table 3. Average annual age-adjusted first admission rates per 100,000 population 45 years and over to Ohio public mental hospitals for mental diseases of the senium, by residence, number of psychiatric facilities, and number of admissions, July 1, 1958–December 31, 1961

Residence	Admission rates	Psychiatric facilities							
		State hospitals ¹		Private mental hospitals ¹		General hospitals ²		Number Veterans Administration hospitals	Number out-patient psychiatric clinics ³
		Number	Admissions	Number	Admissions	Number	Admissions		
Metropolitan A.....	50.9	10	9,390	7	2,716	13	6,446	3	31
Metropolitan B.....	21.3	4	3,040	0	0	7	3,131	0	9
Nonmetropolitan C....	72.5	4	2,527	0	0	0	0	1	5
Nonmetropolitan D....	23.4	2	683	0	0	0	0	0	7

¹ Data from *Hospitals*, Guide Issue, vol. 35, August 1961.

² Data from 1960 report schedules sent to the Biometrics Branch, National Institute of Mental Health.

³ Data from 1959 "Directory—Outpatient Psychi-

atric Clinics," National Association for Mental Health and the National Institute of Mental Health.

NOTE: Data on admissions to Veterans Administration hospitals and outpatient psychiatric clinics not available.

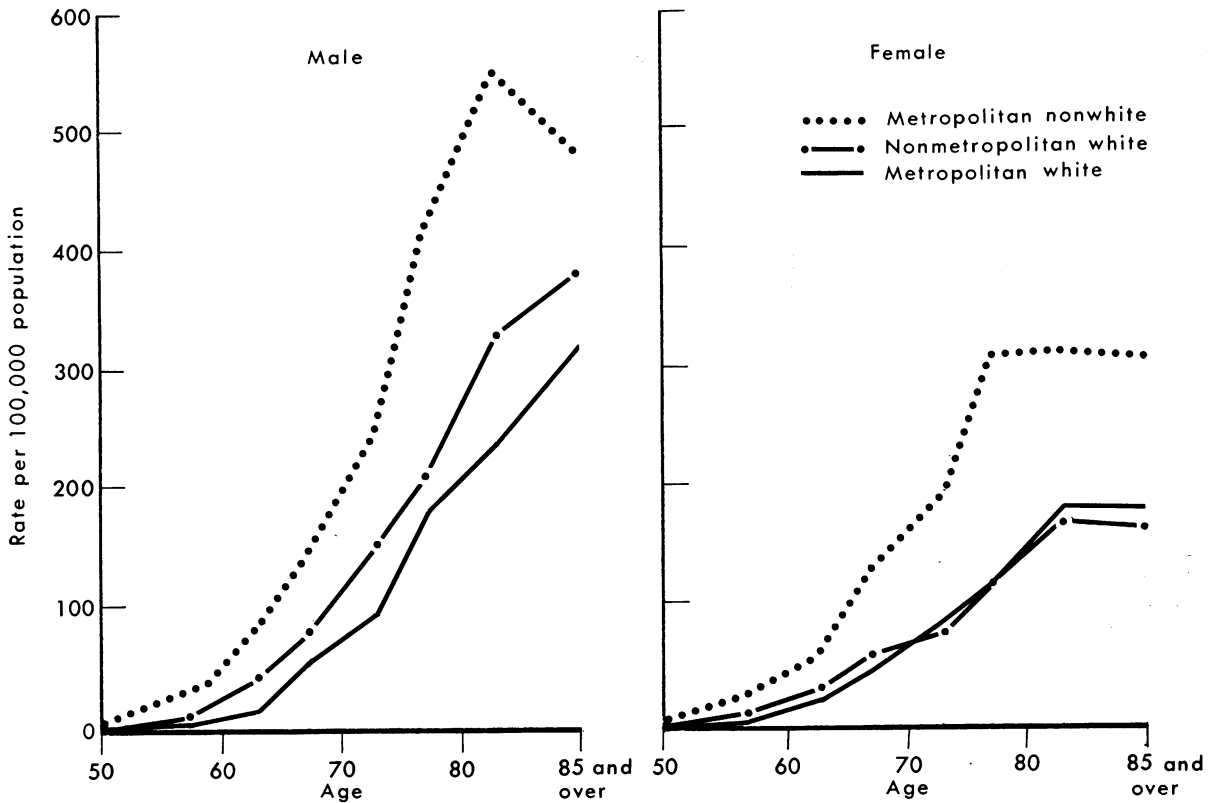
Table 4. Average annual first admission rates per 100,000 population to Ohio public mental hospitals for mental diseases of the senium, by age, sex, color, and residence, July 1, 1958–December 31, 1961

Age group (in years) ¹	Males			Females			Ratio of males to females		
	White		Non-white	White		Non-white	White		Non-white
	Metropolitan	Non-metropolitan	Metropolitan	Metropolitan	Non-metropolitan	Metropolitan	Metropolitan	Non-metropolitan	Metropolitan
Total.....	39.5	67.4	80.1	35.1	42.3	64.6	1.1	1.6	1.2
Adjusted.....	45.6	63.0	110.3	34.3	36.2	82.5	1.3	1.7	1.3
45-54.....	(1.8)	(2.1)	(3.9)	(1.1)	(1.4)	(3.8)	(1.6)	(1.5)	(1.0)
55-59.....	(5.9)	(7.6)	(32.0)	(5.8)	(8.7)	(23.7)	(1.0)	(.9)	(1.4)
60-64.....	27.8	46.3	80.9	22.2	31.1	(59.4)	1.3	1.5	1.4
65-69.....	54.6	81.6	147.0	48.1	57.1	131.6	1.1	1.4	1.1
70-74.....	97.4	160.4	252.9	83.1	79.2	208.3	1.2	2.0	1.2
75-79.....	183.4	213.9	422.5	120.2	121.1	311.0	1.5	1.8	1.4
80-84.....	240.5	324.0	(552.1)	185.5	172.2	(312.0)	1.3	1.9	(1.8)
85 and over.....	321.1	377.4	(481.0)	183.2	168.9	(308.9)	1.8	2.2	(1.6)

¹ Total and adjusted rates based on population 45 years of age and older.

NOTE: () indicates less than 10 admissions per year.

Figure 1. Average annual first admission rates to Ohio public mental hospitals for mental diseases of the senium, by age, sex, residence, and color, July 1958–December 31, 1961



off” when reporting education. However, the consistency of this occurrence with the 1950 analysis merits concentrated investigation.

Also consistent with the 1950 findings were the higher rates for men and the substantially greater rates among nonwhites at every educational level (table 6). As education is closely related to economic status, it is quite likely that the use of other than public mental hospital resources is more common among the better educated, higher economic classes. This may explain their lower admission rates. The role of education with respect to diseases of the senium will be clarified by further systematic study.

Marital status. In each category of marital status, the total age-adjusted rates for men exceeded those for women, and among men the nonmetropolitan rates exceeded the metropolitan rates (table 7 and fig. 2).

Divorced and separated persons had by far the highest rates of admission for diseases of the

Table 5. Age-adjusted average annual first admission rates per 100,000 population 45 years and over to Ohio public mental hospitals for mental diseases of the senium, by years of school completed, residence, and sex, July 1, 1958–December 31, 1961

Years of school completed	Metropolitan		Nonmetropolitan	
	Male	Female	Male	Female
Elementary or none	51.8	39.4	60.6	36.6
0-4-----	45.4	35.9	60.3	38.9
5-7-----	41.1	29.4	34.2	21.9
8-----	68.5	49.2	80.2	44.4
High school	30.7	25.7	31.0	24.7
1-3-----	19.4	12.1	23.9	14.0
4-----	45.6	39.9	41.5	36.5
College (1 or more) --	25.6	14.1	32.4	20.2

NOTE: In order to use available census population data, metropolitan counties Allen, Butler, Clark, and Lorain were shifted to the nonmetropolitan area.

senium. However, the proportion of these persons was considerably smaller (8 percent) than the proportion of divorced persons admitted to all State hospitals (15 percent), which is

Table 6. Average annual first admission rates per 100,000 population 45 years and over from 11 metropolitan counties¹ to Ohio public mental hospitals for mental diseases of the senium, by years of school completed, sex, and color, July 1, 1958–December 31, 1961

Years of school completed	Male		Female	
	White	Nonwhite	White	Nonwhite
Elementary or none	56.9	82.2	49.6	65.8
High school	15.1	(26.9)	16.1	(24.4)
College	13.1	(20.8)	(8.0)	(32.1)

¹ Cuyahoga, Franklin, Greene, Hamilton, Lake, Lucas, Mahoning, Miami, Montgomery, Summit, and Trumbull.

NOTE: () indicates less than 10 admissions per year.

three times as great as the proportion of divorced persons in the general population.

Rates for the divorced were followed by those for the single and widowed, except for metropolitan women where the order of the rates was reversed for the single and widowed. Married persons had the lowest rates of admission. Perhaps many of these persons are cared for at home by their spouses, and additional studies of this factor would help to interpret these results.

The relatively small variation among rates for nonmetropolitan women in the various marital categories is interesting. At age 75 years and over, where age adjustment would have little effect, the uniformity of the rates is remarkable in view of the substantial variations for the other age groups.

Occupation. Although farmers and laborers constituted 14 percent of the general employed male population 55 years of age and older, 40 percent of the employed men admitted with diseases of the senium were in these two occupational categories (table 8). Laborers had the

Table 7. Average annual first admission rates per 100,000 population to Ohio public mental hospitals for mental diseases of the senium by age, sex, marital status, and residence, July 1, 1958–December 31, 1961

Age group (in years) ¹	Male				Female			
	Single	Married	Widowed	Divorced ²	Single	Married	Widowed	Divorced ²
	Metropolitan							
Total	77.8	40.9	71.2	117.8	38.7	28.9	47.2	83.5
45–54	1.3	1.7	9.7	3.2	2.3	0.8	6.6	0
55–64	55.2	13.9	29.6	63.1	14.0	11.5	25.8	32.7
65–74	159.7	58.9	134.4	189.4	61.6	50.3	92.2	132.4
75 and over	248.5	213.9	274.6	523.9	187.0	131.7	159.4	413.9
	Nonmetropolitan							
Total	96.9	47.4	82.0	171.8	42.4	35.2	40.6	47.0
45–54	8.7	1.1	0	6.7	2.4	1.1	3.7	2.7
55–64	54.2	17.2	49.2	72.0	16.0	17.6	25.4	31.3
65–74	212.1	82.0	162.2	307.5	91.8	58.7	70.5	95.8
75 and over	298.1	222.2	300.8	750.6	157.6	155.0	152.2	149.7

¹ Total age-adjusted rates based on 1960 Ohio population 45 years of age and over.

² Includes separated.

NOTE: In order to use available census population data, metropolitan counties Allen, Butler, Clark, and Lorain were shifted to the nonmetropolitan area.

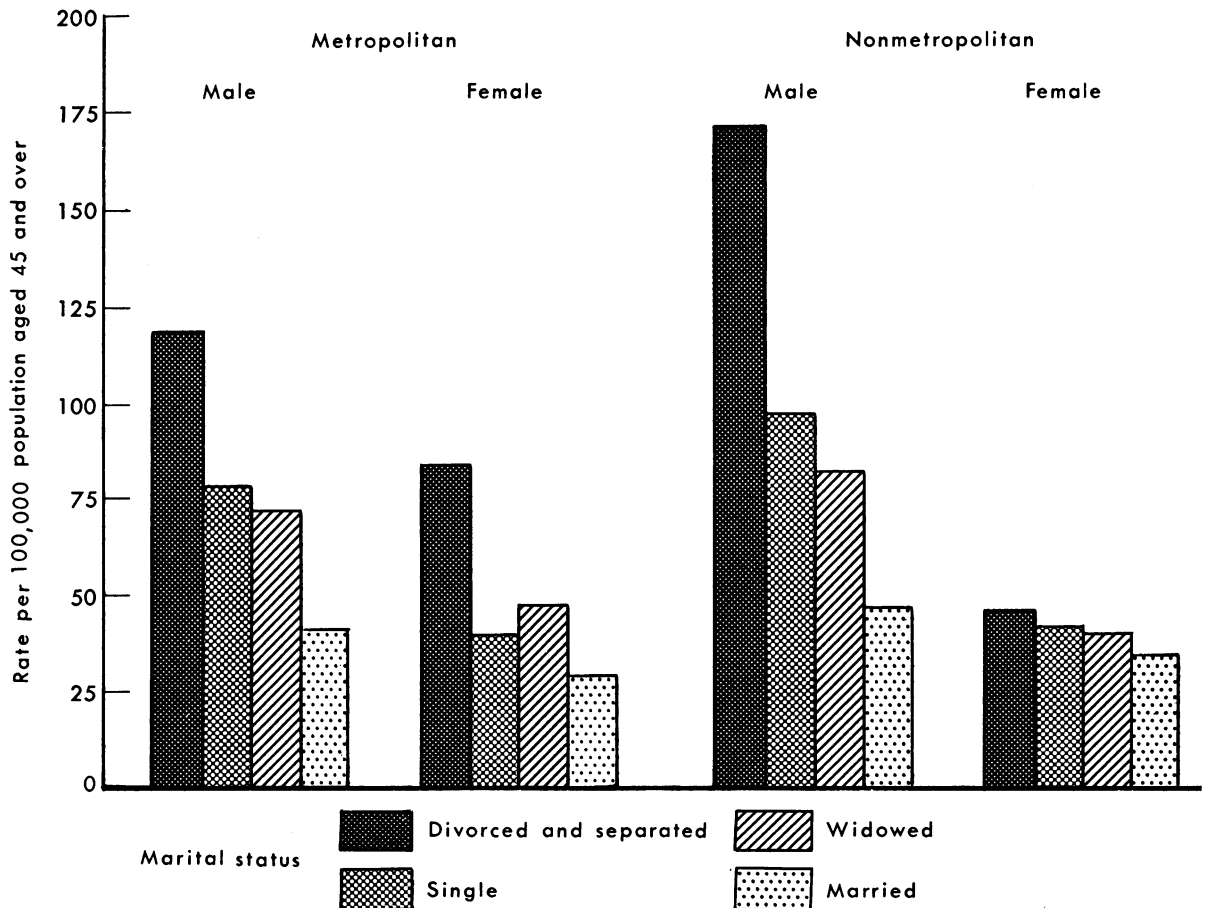
highest rates of admission and farmers the next highest.

Men with white-collar occupations had the lowest rates of admission, although operatives had a comparable and even lower rate than two of the three major white-collar occupational categories in the metropolitan area (table 8). Except for two occupational categories, the metropolitan rates were lower than the non-metropolitan rates. However, the results cannot be interpreted conclusively, because the rates are unadjusted for age and the majority of men admitted with diseases of the senium are no longer in the labor force and they are from metropolitan areas. In fact, the average annual rate of first admissions of unemployed men exceeds the rates for all but two occupational categories: farm occupations and

laborers. But it is quite reasonable to conclude that the rates for these two categories are excessive, because age adjustments would tend to lower the rates among the generally older retired men and elevate the rates among the relatively younger employed men.

Migration. Mental diseases of the senium were the most prevalent diagnoses among 1,507 foreign-born patients on first admission to Ohio public mental hospitals, accounting for 43 percent of these patients. Although the crude admission rates for white persons were substantially higher for the foreign-born than the native-born, the differences were reduced appreciably when the rates were age adjusted. However, a decided difference remained among nonmetropolitan men: the rates for the foreign-born were more than 50 percent higher than for

Figure 2. Average annual adjusted first admission rates to Ohio public mental hospitals for mental diseases of the senium, by marital status, residence, and sex, July 1958–December 31, 1961



the native-born. For all men and women, the nonmetropolitan rates exceeded the metropolitan (table 9 and fig. 3).

As to place of birth of native-born patients, the age-adjusted rates specific for sex and race were uniformly higher for those born in States other than Ohio (table 10 and fig. 3). This finding of higher rates among migrants, with greater differentials for native migrants even when compared with the foreign-born, is consistent with results of previous analyses of admissions to State mental hospitals (6,7).

Discussion

In 1960 persons 65 years of age and older constituted 9 percent of the U.S. population and 24 percent of the first admissions to the nation's public mental hospitals (1, 8). The aged population has been increasing steadily in terms of

Table 8. Average annual first admission rates per 100,000 population aged 55 years and over to Ohio public mental hospitals for men with mental diseases of the senium, by occupation and residence, July 1, 1958–December 31, 1961

Occupation	Metropolitan	Nonmetropolitan
Professional and technical.....	30.8	35.3
Farmers, farm managers, and farmworkers.....	181.4	126.1
Managerial and proprietary....	12.9	39.0
Clerical and sales.....	33.6	49.7
Craftsmen.....	55.7	87.1
Operatives.....	27.5	70.3
Service workers, except private household.....	92.9	70.2
Laborers, except farm and mine.....	232.2	254.8

NOTE: In order to use available census population data, Allen, Butler, Clark, and Lorain Counties were shifted from the metropolitan to the nonmetropolitan area.

Figure 3. Average annual adjusted first admission rates to Ohio public mental hospitals for mental diseases of the senium, by nativity, sex, and color, July 1958–December 31, 1961

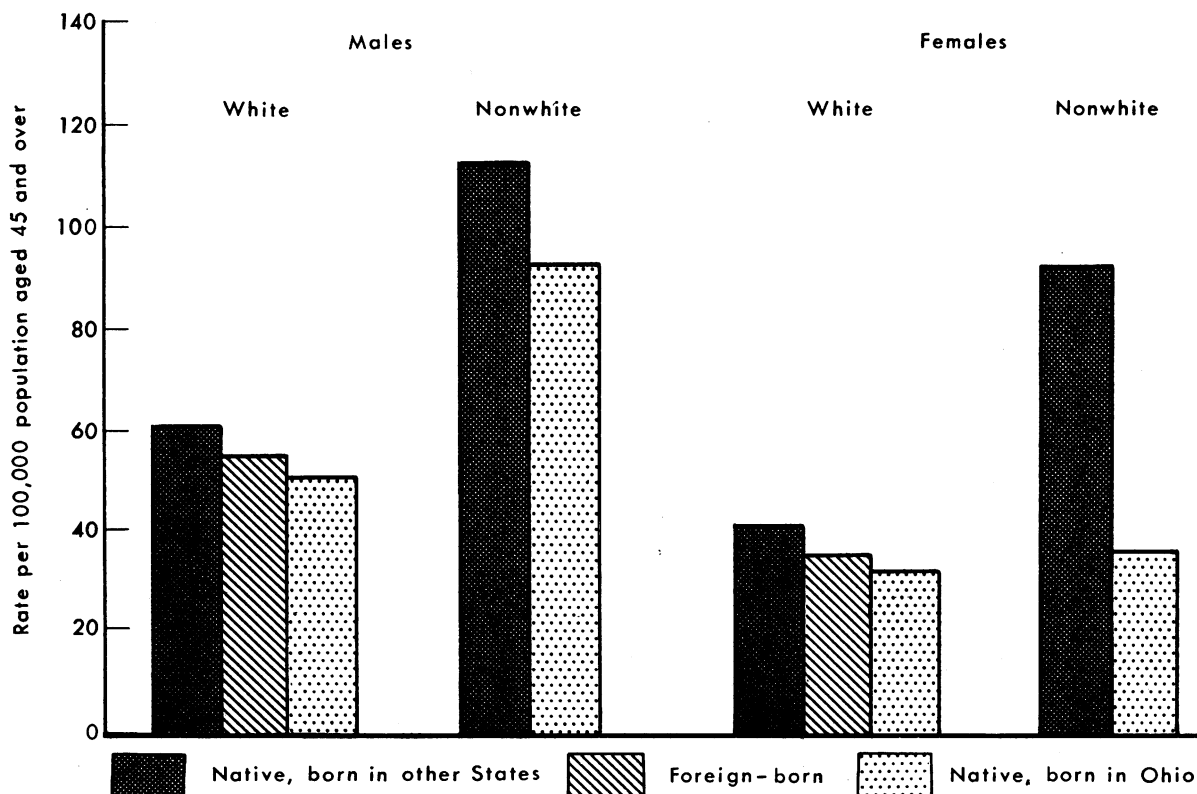


Table 9. Average annual first admission rates per 100,000 population to Ohio public mental hospitals for white persons with mental diseases of the senium, by age, residence, nativity, and sex, July 1, 1958–December 31, 1961

Age group (in years) ¹	Metropolitan		Nonmetropolitan	
	Native-born	Foreign-born	Native-born	Foreign-born
Males				
Total.....	33.2	64.7	62.6	145.0
Adjusted....	43.8	48.5	62.1	95.3
45-54.....	(1.5)	(3.5)	(2.1)	(0)
55-64.....	14.9	(17.0)	21.8	(82.3)
65-74.....	69.1	72.1	115.9	144.1
75-84.....	204.3	189.2	252.2	346.9
85 and over....	289.4	505.7	386.0	(469.9)
Females				
Total.....	30.2	53.3	40.9	(45.7)
Adjusted....	32.1	37.6	36.8	28.0
45-54.....	(1.1)	(1.1)	(1.4)	(0)
55-64.....	12.3	(14.8)	18.9	(10.9)
65-74.....	59.5	65.2	65.9	(58.0)
75-84.....	133.8	153.2	145.5	(118.2)
85 and over....	169.6	262.2	180.1	(89.0)

¹ Total and age-adjusted rates based on total Ohio population 45 years of age and older.

NOTE: () indicates less than 10 admissions per year.

the proportion it constitutes of the total population as well as in absolute numbers. A recent review of 20 years' data demonstrated the increase in numbers admitted to public mental hospitals from the population aged 65 or older (9). During this period mental diseases of the senium accounted for 84 percent of such admissions. In the past few years, however, the number of admissions of the aged has remained steady, and the proportion diagnosed as having diseases of the senium has decreased slightly (1).

That the number of admissions to the nation's public mental hospitals as well as to those of Ohio has remained steady is highly significant in view of the remarkable rise in actual numbers of persons who are over 65 years of age. There is probably no single explanation for this phenomenon, but it is possible that results of recent studies may offer one explanation. For

example, based on a 5-year followup study of hospitalized patients with diseases of the senium, Locke concluded: "Perhaps the finding that so many of these patients die shortly after admission should result in a review of current admission practices. Similarly, the finding that so many, particularly from metropolitan areas, are discharged as unimproved may reflect on admissions who are either not suitable for hospitalization or are not amenable to psychiatric treatment. For these patients alternative arrangements should be considered and provided" (10).

Indeed, the one major finding from the 1960 study inconsistent with the 1950 study of admissions concerns the higher rates among nonmetropolitan males compared with metropolitan males, a change caused primarily by a substantial decrease in the metropolitan admission rates. These changes, therefore, may well reflect an awareness of and positive reaction to results from followup studies.

The degree to which the findings from this study substantiate those derived from an analysis of data of a decade ago with regard to characteristics of patients at time of admission is quite surprising. In that interval tranquilizers and other psychotropic drugs were

Table 10. Average annual first admission rates per 100,000 population 45 years of age and over to Ohio public mental hospitals for mental diseases of the senium, by sex, color, and nativity of native-born, July 1, 1958–December 31, 1961

Sex, race, and place of birth	Average annual first admission rates	
	Crude	Adjusted
Males:		
White, born in Ohio.....	46.6	51.1
White, born in other States..	43.5	61.6
Nonwhite, born in Ohio.....	74.8	93.3
Nonwhite, born in other States.....	83.7	113.0
Females:		
White, born in Ohio.....	34.7	32.7
White, born in other States..	35.9	41.6
Nonwhite, born in Ohio.....	(34.2)	(37.0)
Nonwhite, born in other States.....	72.0	93.1

NOTE: () indicates less than 10 admissions per year.

introduced, and the need for increased psychiatric services was recognized and accepted. Therefore, a wider range of psychiatric services became available. These changing conditions and several still pertinent conjectures were presented and discussed in a previous report (2).

The analysis over two census periods proved quite useful in presenting a profile of the patients with mental diseases of the senium admitted to a public mental hospital system. Whether such a profile will also describe patients so diagnosed when admitted to other psychiatric facilities such as private mental hospitals, general hospitals with psychiatric services, or outpatient psychiatric clinics is being studied.

Summary

An analysis of data on 4,443 patients, aged 45 and over and diagnosed as having diseases of the senium on their first admission to Ohio public mental hospitals from July 1958 through December 1961, showed that admission rates were higher for (a) men than women; (b) non-whites than whites; (c) persons with little or no education than the more educated; (d) divorced and separated persons than those in other marital categories, the lowest rates being among the married; and (e) laborers and farmers than men in other occupations. These findings were consistent with those of an analysis of similar patients admitted in 1948-52, before tranquilizers and other psychotropic drugs were available.

Inconsistent with the earlier findings were higher rates among nonmetropolitan men than among men from metropolitan areas. A substantial overall decrease occurred in metropolitan admission rates, yet a slight increase occurred in nonmetropolitan rates.

Admission rates were higher for patients born in States other than Ohio than for those born in Ohio as well as for the foreign-born, although among the foreign-born diseases of the senium were the most prevalent diagnoses.

ADDENDUM: Subsequent to the preceding study, data were obtained on admissions to all outpatient psychiatric clinics reporting to the State, the Veterans Administration neuropsychiatric hospitals, most of the private mental hospitals, and 13 of 21 general hospitals with

psychiatric facilities which have approximately 70 percent of all admissions.

Mental diseases of the senium accounted for 1,191 admissions, representing less than 1 percent of clinic admissions, 8.4 percent of private and Veterans hospital admissions, and 4.6 percent of the general hospital psychiatric admissions—far less than the 15 percent of the public mental hospital admissions. Information obtained for these patients was not as comprehensive as for those admitted to the public hospitals, and data on nativity and education were not available. Efforts were made to detect patients who used more than one facility, so that the data would reflect unduplicated information on individual patients.

As a consequence of the incorporation of the data for all these facilities with the State hospitals, the age-adjusted admission rates for the metropolitan and nonmetropolitan areas were about equal. This undoubtedly reflects the greater availability of other inpatient facilities to metropolitan area residents. Consistent with the State hospital results, higher rates were observed for nonmetropolitan than metropolitan patients among the small number of clinic admissions.

The analysis of the data for all the combined psychiatric facilities did not alter the State hospital results regarding age, sex, color, and occupation. However, the ratio of males to females was reduced, because admission rates to the added facilities were equal for both sexes.

Findings for marital status were unaltered. Again, the outpatient clinic data reflected the same high proportions of divorced and separated as the public mental hospital data, whereas data from the other inpatient facilities revealed proportions equal to or less than the general population of the State.

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- (10) Locke, B. Z.: Hospitalization history of patients with mental diseases of the senium. *J Geront* 17: 381-384, October 1962.

Conference Calendar

October 4-7, 1965: National Institutes of Health, Public Health Service, Instrument Symposium and Research Equipment Exhibit (annual), Bethesda, Md., James B. Davis, Executive Secretary.

October 7-9, 1965: American College of Physicians (fall meeting), Deauville Hotel, Miami Beach, Fla. Information: Edward C. Rosenow, Jr., M.D., Executive Director, 4200 Pine Street, Philadelphia, Pa. 19104.

October 10-14, 1965: Water Pollution Control Federation, Atlantic City, N.J.

October 11-13, 1965: American Nursing Homes Association, Chicago, Ill.

October 13-14, 1965: Congress on Occupational Health, Indianapolis, Ind.

October 14, 1965: George Washington University Symposium on Suicide. Leon Yochelson, M.D., The George Washington University Hospital, Department of Psychiatry, 901 23d Street NW., Washington, D.C. 20037.

October 15-19, 1965: American Heart Association, Bal Harbour, Fla.

October 16-22, 1965: American School Health Association, Chicago, Ill.

October 18-21, 1965: Association of Public Health Physicians; National Pest Control Association, both in Chicago, Ill.

October 18-22, 1965: American College of Surgeons (annual clinical conference), Atlantic City, N.J.

October 18-22, 1965: American Association of Public Health Educators; American Public Health Association; Association of Management in Public Health, all in Chicago, Ill.

October 23-28, 1965: American Academy of Pediatrics (annual meeting), Chicago, Ill. Information: American Academy of Pediatrics, 1801 Hinman Avenue, Evanston, Ill. 60205.

October 25-29, 1965: National Safety Council, Chicago, Ill.

October 26, 1965: American Association of Poison Control Centers, New York, N.Y.

October 27-29, 1965: American Cancer Society, New York, N.Y.

November 1-5, 1965: American Dietetic Association, Cleveland, Ohio.

November 3-5, 1965: American Society of Tropical Medicine and Hygiene, New Orleans, La.

November 6, 1965: American Association of Public Health Dentists, Las Vegas, Nev.

November 8-11, 1965: American Dental Association, Las Vegas, Nev.

November 11-13, 1965: Gerontological Society, Los Angeles, Calif.

November 15-17, 1965: Association of Military Surgeons of U.S., Washington, D.C.

November 16-19, 1965: Conference of State and Territorial Health Officers, Washington, D.C.

November 17-20, 1965: National Association for Mental Health, New York, N.Y.

November 20-23, 1965: National Society for Crippled Children and Adults (annual meeting), Palmer House, Chicago, Ill. Catherine Bauer, Director of Public Relations, National Society for Crippled Children and Adults, 2023 West Ogden Avenue, Chicago, Ill. 60612.

November 23-28, 1965: International Congress of Internal Medicine, Buenos Aires, Argentina.

November 28-December 1, 1965: American Medical Association (clinical meeting), Philadelphia, Pa.

November (tentative) 1965: Conference of State and Territorial Hospital and Medical Survey and Construction Authorities, Washington, D.C.

December 26-30, 1965: American Association for the Advancement of Science, Berkeley, Calif.

Announcements for publication should be forwarded to Public Health Reports 6 months in advance of meeting.