AGEING AND SENILITY: A MAJOR PROBLEM OF PSYCHIATRY.*

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THE psychiatric aspects of ageing are a major problem in any country which, like our own, has a low net reproduction rate and a high standard of social responsibility: the proportion of old people in the community steadily increases, so that they provide an increasingly high proportion of our mentally infirm population who must be cared for. But it is not only senile dementia and the other senile and presenile psychoses described in textbooks that make up the problem: less conspicuous failings which may accompany old age also call for attention if the social and preventive sides of our work are to be given due weight. Therefore it is psychiatric aspects of ageing rather than senile psychoses alone that are intended by the title of this paper.

Senile psychoses are, however, the obvious index of the problem; they show in plain figures what it costs to have an increasing elderly population, without any lessening of the incidence of the mental disorders of the elderly.

In 1881, 11·2 per cent. of the resident population of the institutions for "idiots or imbeciles and lunatics" under the supervision of the Commissioners in Lunacy in England and Wales was aged 65 and over. By 1891 the proportion had risen to 12·1 per cent. (males 9·6 per cent., females 13·2 per cent.); by 1894 the males aged 65 and over were 10 per cent. and the females 13·4 per cent. of the institutional population. Thereafter the figures (excluding institutions for defectives) are:

TABLE I.

	Males. %.	Females. %.
1907	11	15
1913	11	15
1931	14	19
1935	14	20
1938	15	21

If the age-group be extended backwards by ten years, to cover all patients aged 55 years and upwards, the proportion they bore to total patients of all ages resident was:

TABLE II.

	Males. %.	Females. %.
1907	27·6	33·8
1913	28·2	34·7
1931	33·7	41·7
1935	34·9	43·2
1938	35·9	44·9

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These figures indicate that mental hospitals, like the larger world, have a more and more elderly population as the years go by, and that before long the majority of the women who are patients in mental hospitals will be over 55.

This rise in the proportion of elderly residents entails many administrative readjustments, and some changes in the orientation of nurses and occupational therapists, as well as doctors. But its causes are not obvious. The Commissioners of 1897, presenting their Special Report to the Lord Chancellor on the alleged increase of insanity, said that "while in the general population there has been a considerable increase in those ages in which the greatest liability to attacks of insanity is known to prevail, namely, from 20 to 45, there has been a marked diminution in the ratios (of patients to general population) among the insane at those ages, and a large increase in the numbers and ratios at the more advanced ages, the obvious inference being that accumulation and not fresh production has been the most influential factor." This can be construed as saying that the rise in the number and proportion of elderly patients in the mental hospitals and institutions was due to an increased expectation of life in those admitted at earlier ages. But an alternative and more tenable view would attribute it to an increased incidence of insanity among the elderly, or perhaps to an increased number of elderly people in the general population. To this the Commissioners had indeed drawn attention two years before. Pointing to the increase in yearly admissions of insane persons of all ages between 1869 and 1893, they comment: "This continuous increase has been attributed in part to the reception in recent years of more cases of mental decay resulting solely from old age. . . . The ratio of what we may term *old age* admissions (persons 60 years and upwards) to total admissions has risen since 1878 until, in 1893, it was 2·2 per cent. higher than in 1883 . . . again, the tables [show] a gradual, but continuous advance in the proportion admitted whose insanity was attributed to this cause (old age)."

I have dwelt on this report of 1895 because it shows that fifty years ago the chief features of this problem of the senile psychoses were in evidence—a rising proportion of old people among the residents in the mental hospitals and a rising proportion of old people being admitted to them. There were some other features then also stressed to which I shall refer later.

Since the number of persons resident in a mental hospital depends not only on the frequency of occurrence of mental illness, but also on the number of the available beds, and the duration of stay or of survival after admission, as well as on the age at which initial admission occurred in the surviving unrecovered and unrecoverable cases, it is clear that it is, as a crude figure or proportion, of very little value in determining the incidence of mental illness or in predicting its future prevalence, especially in the higher age-groups. The admission-rate is a more trustworthy guide. But there are several ways of determining and interpreting this rate. The Commissioners in Lunacy in 1897 had paid regard to the proportion of older persons among persons of all ages admitted. In other words, they were not, for this statistic, concerned with the size of the population at risk, nor with excluding from the total of admissions those persons who were being admitted for the second or third

time, perhaps even during the same year. By 1909 the Commissioners were drawing attention to the former of these considerations: "Another fact of interest is that the age-distribution of the insane admitted into care, from 25 years and upwards, shows a higher proportion in age-periods 45 to 54, 55 to 64, and 65 and upwards, than the distribution at the same periods amongst the general population," from which it can be inferred that the proportion of the older people in the general population who have to be admitted to a mental hospital is higher than the proportion of younger people who need this. Since, however, some at any rate of all old people admitted will have been previously admitted on several, perhaps many, occasions during their lives, the Commissioners' observation might indicate only a natural effect of certain mental illnesses tending to relapse or recur, and might not tell anything about an increase in the proportion of old people in the general population who had to be admitted because of a senile psychosis. This is at last explicitly recognized in the Report of the Board of Control for 1924: "it is a close examination of fluctuations in this ratio (ratio of admissions to the population), especially when analysed in age-periods and with particular reference to 'first attack' admissions, that is important in relation to the actual incidence of mental disorder, a matter we are at present investigating." Unfortunately I cannot discover in any subsequent reports the results of that investigation, and as the reports of the Board of Control, after the disruption produced by the war of 1914–1918, never reverted to the admirable form in which they had previously appeared, the analysis of first attack admissions age-group by age-group could not be carried out from the published figures. May I say, in passing, that though the Board have very kindly supplied me with the figures I wanted, and have been most helpful, I believe it would be not only in the public interest but to the advantage of psychiatry if the figures published by the Board each year could be presented again in a form more in keeping with the requirements of vital statistics. National data about morbidity in this country have after all been restricted until recently to infectious diseases and mental disorders—the two certifiable groups of illness: such full material as the Board has would be invaluable if published regularly and analysed in a manner comparable in some respects to that of the Registrar-General when dealing with mortality statistics.

Before going on to examine the proportion which first attack admissions bear to the general population of the higher age-groups, the proportion of "first attack" to "not first attack" admissions can be briefly shown. A third group is composed of cases in which it is unknown whether this is the first attack, or the illness is a congenital one (obviously of little relevance in the elderly). In the three age-groups 45–54, 55–64, 65 and upwards one finds that, if the first admissions in each age-group and each year be taken as 100, the proportionate numbers of the "not first attacks" and "unknown" cases were as shown in Table III, p. 153.

It is plain from these figures that the proportion of "first attack" to other admissions is changing, and is, of course, different in the different age-groups. Consequently any conclusions drawn about first attack cases from data regarding all direct admissions might be deceptive, yet such conclusions are some-

TABLE III.

	Males.					Females.				
	1907.	1913.	1921.	1931.	1937.	1907.	1913.	1921.	1931.	1937.
45–54 Age-group.										
First	100	100	100	100	100	100	100	100	100	100
Not first	38	34	34	37	47	58	46	47	50	55
Unknown	6	10	8	7	7	7	4	6	6	5
55–64 Age-group.										
First	100	100	100	100	100	100	100	100	100	100
Not first	35	33	29	38	44	49	48	49	49	58
Unknown	9	7	7	7	6	4	9	4	5	4
65 and Upwards Age-group.										
First	100	100	100	100	100	100	100	100	100	100
Not first	19	20	22	26	30	29	23	23	33	37
Unknown	6	3	4	4	3	8	2	3	4	4

times put forward. Why the proportion of "not first attack" admissions should have increased particularly since 1931 I cannot see, unless it is the result of a bolder policy of discharge and a more optimistic view of recovery which has led to more readmissions of relapsed patients. I think this explanation is supported by the fact that the rise is not limited to the older age-groups; for admissions of all ages there is a conspicuous advance in the 1937 proportion of "not first attack" admissions.

TABLE IV.

	Males.					Females.				
	1907.	1913.	1921.	1931.	1937.	1907.	1913.	1921.	1931.	1937.
All Ages.										
First	100	100	100	100	100	100	100	100	100	100
Not first	31	28	29	32	40	43	37	37	41	48
Unknown	18	18	15	11	10	12	11	11	9	7

It is not easy to account for the disparity between men and women, of all ages as well as of the higher age-groups in respect of proportion of first to "not first" attack admissions: as it is not, however, necessary to the main theme I forbear to speculate on it here.

The "first attack" admission-rate expresses the number of such admissions per 100,000 of the population at risk—that is the most reliable index of incidence we have. That is not, however, the figure that I have calculated, because (1) among the "unknown" admissions referred to there may well be some "first attack admissions" which I have omitted: Slater, for what seem to me insufficient reasons, included all the "unknown" group, and

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TABLE V.

Age-groups.	Population (estimated).		Resident in mental hospitals.		First attack admissions.		First admissions per 100,000 general population.		First admissions per 100,000 at risk.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 15	5,663,920	5,654,021	761	425	25	11	·44	·195	·44	·195
15–19	1,693,711	1,721,461	1,097	916	245	307	14·5	17·9	14·5	17·9
20–24	1,538,431	1,712,214	2,396	2,092	558	584	36·2	34·1	36·4	34·1
25–34	2,899,804	3,198,584	9,344	8,610	1,467	1,616	50·6	50·5	50·7	50·7
35–44	2,391,988	2,568,336	12,335	13,190	1,684	1,704	70·4	66·3	70·7	66·7
45–54	1,732,989	1,875,472	11,638	14,152	1,382	1,571	79·9	83·7	80·3	84·4
55–64	1,109,286	1,240,145	8,877	11,588	999	980	90·0	79·0	90·8	79·7
65+	803,667	1,049,934	5,893	9,328	880	1,064	109·5	101·3	110·3	102·2

(2) the population at risk is not the total general population, but only those not already resident in a mental hospital: and although the number resident for age-groups covering a stretch of ten years (and more, in the case of the over 65's) is known, it would be necessary to divide this into single-year age groups, and make some other estimates to obtain the precise number of the population at risk. Moreover, I have worked out for a single year, 1913, the proportion of first admissions to total population, and to total population minus those of the given age-group resident in that year, and the difference between the two rates is too small to be a matter for concern in this inquiry; it may therefore be assumed that, for our purpose, the rate may be calculated for the total population (which is, in any case, only an estimate for any inter-censal year).

The distinction perhaps should be emphasized between "first admissions" and "first attack admissions." It is the latter I am presenting. The first admissions would be more numerous, since they would include persons whose recurrent illness had not in previous attacks called for admission to a mental hospital. If we are seeking a measure of the true incidence of illness occurring for the first time in a particular age-group of the population it is first attack admissions that we must consider, but this, of course, gives us only a minimal figure, since many of those affected may not be admitted to a mental hospital. If, on the other hand, we were concerned only with the administrative questions implicit in predicting mental hospital admissions, it would be all first direct admissions and not only "first attack" ones that would be valuable to us.

Table VI and the graphs which follow show the absolute rise for persons over 65—and the incidence-rate per 100,000 of the general population, for the age-groups 35–44, 45–54, 55–64, 65 and over, during the thirty years 1907–1937 (omitting the war-years, for which figures are not available).

TABLE VI.

(*Males.*)

Year.	Age-group.	First attack admissions.	Population.	Incidence-rate per 100,000.
1907	35–44	1,566	2,179,875	72
	45–54	1,320	1,578,910	84
	55–64	972	1,016,546	95
	65+	821	751,953	109
1908	35–44	1,624	2,227,137	73
	45–54	1,312	1,613,663	81
	55–64	964	1,037,417	93
	65+	875	769,151	114
1909	35–44	1,601	2,262,658	71
	45–54	1,289	1,639,913	79
	55–64	1,031	1,052,807	98
	65+	833	782,299	107

TABLE VI—(*continued*).

(*Males.*)

Year.	Age-group.	First attack admissions.	Population.	Incidence-rate per 100,000.
1910	35–44	1,669	2,304,694	72
	45–54	1,251	1,670,889	75
	55–64	953	1,071,221	89
	65+	879	797,708	110
1911	35–44	1,575	2,336,508	67
	45–54	1,303	1,694,333	77
	55–64	985	1,085,156	91
	65+	852	809,370	105
1912	35–44	1,701	2,367,176	72
	45–54	1,385	1,715,708	81
	55–64	1,017	1,098,508	93
	65+	916	796,066	115
1913	35–44	1,685	2,391,988	70
	45–54	1,381	1,732,989	80
	55–64	1,000	1,109,286	90
	65+	874	803,667	109
1914	35–44	1,798	2,394,718	75
	45–54	1,490	1,734,889	86
	55–64	1,038	1,110,477	93
	65+	944	827,732	114
1920	35–44	1,531	—	—
	45–54	1,359	1,872,917	72
	55–64	1,008	1,320,887	76
	65+	918	937,737	98
1921	35–44	1,495	2,496,375	60
	45–54	1,403	2,133,179	66
	55–64	1,130	1,382,843	82
	65+	996	980,230	102
1922	35–44	1,511	2,494,089	60
	45–54	1,461	2,163,635	67
	55–64	1,070	1,418,800	75
	65+	1,016	1,000,200	102
1923	35–44	1,510	2,488,900	61
	45–54	1,429	2,192,100	65
	55–64	1,105	1,458,200	76
	65+	1,060	1,026,600	103

TABLE VI—(*continued*).

(*Males.*)

Year.	Age-group.	First attack admissions.	Population.	Incidence-rate per 100,000.
1924	35–44	1,312	2,491,331	53
	45–54	1,247	2,224,589	56
	55–64	1,037	1,498,500	69
	65+	958	1,044,800	92
1925	35–44	1,358	2,480,000	55
	45–54	1,268	2,246,300	56
	55–64	1,092	1,536,100	71
	65+	989	1,064,400	93
1926	35–44	1,359	2,471,261	55
	45–54	1,338	2,264,764	59
	55–64	1,129	1,583,100	71
	65+	980	1,104,700	89
1927	35–44	1,284	2,463,100	52
	45–54	1,359	2,278,400	60
	55–64	1,160	1,629,200	71
	65+	1,032	1,127,800	92
1928	35–44	1,285	2,461,488	52
	45–54	1,309	2,286,097	57
	55–64	1,161	1,674,400	69
	65+	985	1,164,300	85
1929	35–44	1,252	2,468,900	51
	45–54	1,237	2,281,200	54
	55–64	1,218	1,717,100	71
	65+	1,003	1,178,800	85
1930	35–44	1,165	2,475,500	47
	45–54	1,295	2,287,600	57
	55–64	1,094	1,751,400	62
	65+	942	1,220,300	77
1931	35–44	1,310	2,512,356	52
	45–54	1,381	2,302,873	60
	55–64	1,250	1,765,509	71
	65+	1,040	1,272,847	82
1932	35–44	1,414	2,539,200	56
	45–54	1,384	2,301,800	60
	55–64	1,369	1,808,800	76
	65+	1,025	1,316,300	78

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TABLE VI—(*continued*).

(*Males.*)

Year.	Age-group.	First attack admissions.	Population.	Incidence-rate per 100,000.
1933	35–44	1,393	2,552,100	54
	45–54	1,381	2,301,600	60
	55–64	1,318	1,834,900	72
	65+	1,062	1,344,800	79
1934	35–44	1,344	2,580,500	52
	45–54	1,400	2,305,900	61
	55–64	1,351	1,863,400	72
	65+	1,061	1,384,100	77
1935	35–44	1,520	2,632,300	58
	45–54	1,417	2,314,300	61
	55–64	1,304	1,891,600	69
	65+	1,136	1,427,300	80
1936	35–44	1,524	2,698,300	56
	45–54	1,415	2,328,500	61
	55–64	1,443	1,839,400	78
	65+	1,139	1,464,500	78
1937	35–44	1,599	2,772,800	57
	45–54	1,461	2,340,500	62
	55–64	1,448	1,938,400	75
	65+	1,187	1,501,100	79

(*Females.*)

1907	35–44	1,524	2,336,965	65
	45–54	1,313	1,706,964	77
	55–64	834	1,144,343	73
	65+	897	986,887	91
1908	35–44	1,554	2,388,816	65
	45–54	1,421	1,745,112	81
	55–64	930	1,165,637	80
	65+	879	1,011,275	87
1909	35–44	1,551	2,428,085	64
	45–54	1,367	1,774,070	77
	55–64	918	1,180,750	78
	65+	900	1,030,362	87

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TABLE VI—(*continued*).

(*Females.*)

Year.	Age-group.	First attack admissions.	Population.	Incidence-rate per 100,000.
1910	35–44	1,619	2,474,355	65
	45–54	1,463	1,808,146	81
	55–64	902	1,199,237	75
	65+	848	1,052,439	80
1911	35–44	1,687	2,509,373	67
	45–54	1,381	1,833,936	75
	55–64	931	1,213,229	77
	65+	986	1,069,146	92
1912	35–44	1,689	2,541,959	66
	45–54	1,518	1,856,903	82
	55–64	939	1,228,123	76
	65+	1,062	1,040,061	102
1913	35–44	1,704	2,568,336	66
	45–54	1,569	1,875,472	84
	55–64	982	1,240,145	79
	65+	1,065	1,049,934	101
1914	35–44	1,830	2,571,224	71
	45–54	1,522	1,877,518	81
	55–64	992	1,241,485	80
	65+	1,057	1,093,211	97
1920	35–44	1,720	2,827,516	61
	45–54	1,660	2,108,274	79
	55–64	1,006	1,397,728	72
	65+	1,125	1,195,063	94
1921	35–44	1,782	2,850,034	63
	45–54	1,718	2,287,098	75
	55–64	1,072	1,529,885	70
	65+	1,097	1,310,875	84
1922	35–44	1,838	2,866,000	64
	45–54	1,860	2,327,300	80
	55–64	1,179	1,569,000	75
	65+	1,221	1,331,200	92
1923	35–44	1,819	2,878,400	63
	45–54	1,912	2,375,800	80
	55–64	1,237	1,610,400	77
	65+	1,188	1,362,800	87

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TABLE VI—(*continued*).

(*Females.*)

Year.	Age-group.	First attack admissions.	Population.	Incidence-rate per 100,000.
1924	35–44	1,615	2,889,900	56
	45–54	1,651	2,430,600	68
	55–64	1,148	1,655,900	69
	65+	1,164	1,382,100	84
1925	35–44	1,564	2,896,700	54
	45–54	1,850	2,476,277	75
	55–64	1,214	1,696,000	72
	65+	1,198	1,403,400	85
1926	35–44	1,584	2,903,400	54
	45–54	1,824	2,514,600	73
	55–64	1,244	1,748,700	71
	65+	1,169	1,451,400	81
1927	35–44	1,637	2,914,100	56
	45–54	1,787	2,551,800	70
	55–64	1,244	1,801,600	69
	65+	1,154	1,477,800	78
1928	35–44	1,634	2,924,700	56
	45–54	1,829	2,586,400	71
	55–64	1,274	1,855,800	69
	65+	1,156	1,524,300	76
1929	35–44	1,514	2,947,500	51
	45–54	1,852	2,609,900	71
	55–64	1,373	1,904,000	72
	65+	1,160	1,536,200	76
1930	35–44	1,482	2,968,200	50
	45–54	1,737	2,641,800	66
	55–64	1,213	1,949,900	62
	65+	1,167	1,585,000	74
1931	35–44	1,712	2,954,236	58
	45–54	1,905	2,632,703	72
	55–64	1,394	1,959,919	71
	65+	1,144	1,690,362	68
1932	35–44	1,742	2,987,400	58
	45–54	1,989	2,647,800	75
	55–64	1,485	2,018,200	74
	65+	1,249	1,740,100	72

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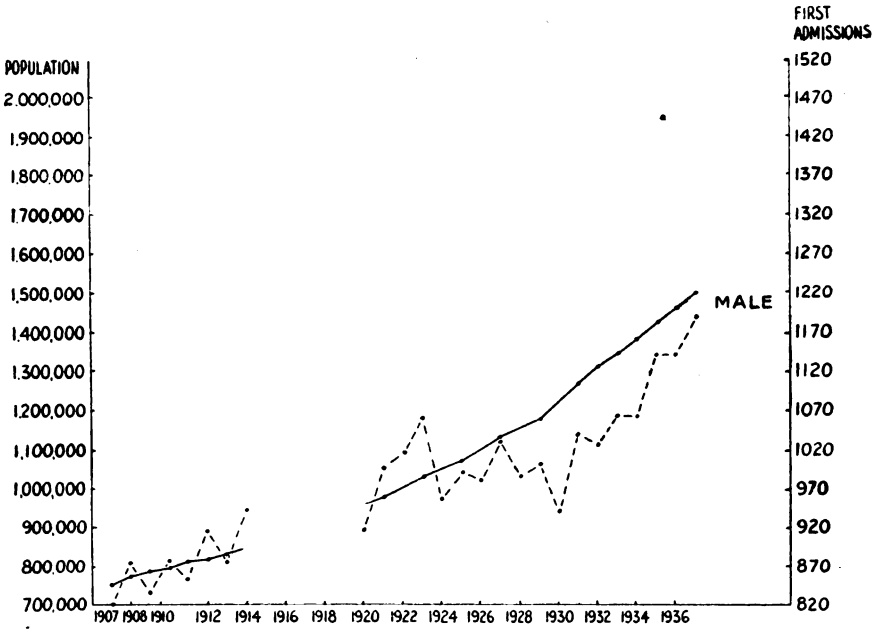
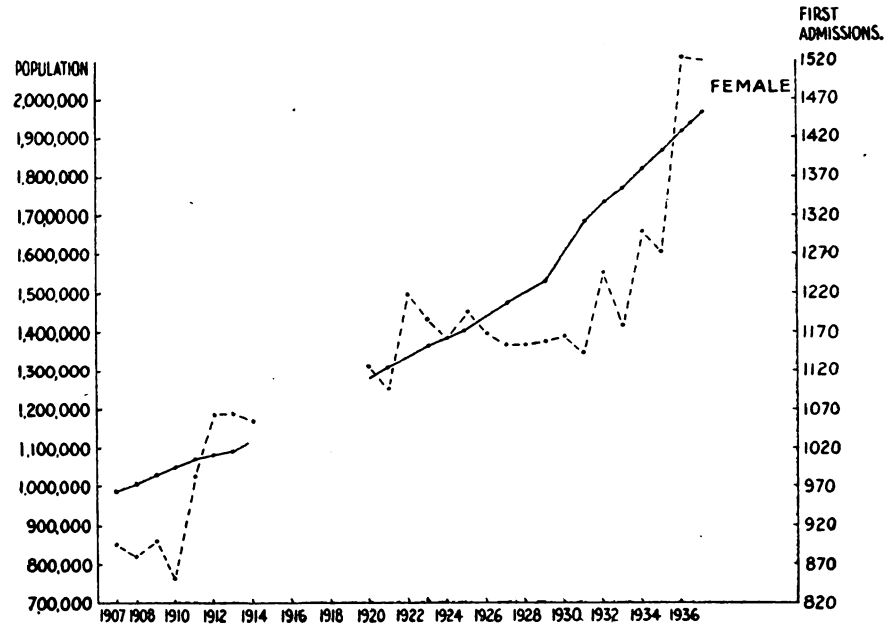


GRAPH A. (1)



GRAPH A. (2)

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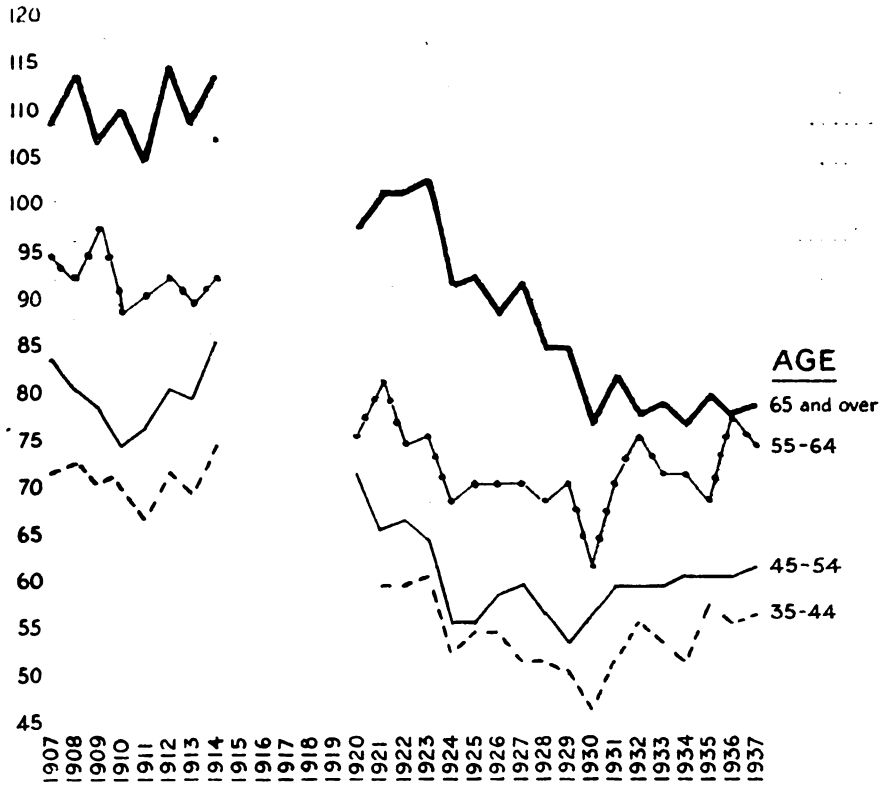

GRAPH B.

GRAPH C.

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TABLE VI—(*continued*).

(*Females.*)

Year.	Age-group.	First attack admissions.	Population.	Incidence-rate per 100,000.
1933	35–44	1,671	3,011,500	55
	45–54	2,012	2,673,400	75
	55–64	1,443	2,064,500	70
	65+	1,180	1,775,400	66
1934	35–44	1,870	3,039,200	61
	45–54	2,118	2,692,700	79
	55–64	1,509	2,110,400	72
	65+	1,302	1,823,200	71
1935	35–44	1,961	3,072,500	64
	45–54	2,075	2,715,500	76
	55–64	1,629	2,159,600	75
	65+	1,273	1,875,700	68
1936	35–44	2,001	3,113,700	64
	45–54	2,206	2,738,900	81
	55–64	1,746	2,285,200	76
	65+	1,530	1,926,000	79
1937	35–44	2,105	3,150,400	67
	45–54	2,254	2,759,800	82
	55–64	1,774	2,246,400	79
	65+	1,522	1,973,400	77

The most striking features here are the difference of trend in men and women, and the remarkable fall in incidence among the men.

Taking the men first, it is evident that after 35, anyhow, the older men are, the higher the incidence of first attack mental disorder among them, and that this was more obvious in 1907 than in 1937. It was more obvious then because by 1937 the gap between the incidence among the 55–64 age-group and that among the 65's and over had been narrowed: the incidence among the over 65's had fallen in the thirty years from 109 to 79, whereas the incidence among the 55–64 group had declined less steeply, from 96 to 75, that among the 45–54's from 84 to 62, and among the 35–44's only from 72 to 58 per 100,000.

Among the oldest group who are our concern, the fall began during, or perhaps just after the war years and then continued until 1932, after which the rate became steady. Such a decline might be due to a general diminution

in the available beds or some other factor causing the incidence for the total population of all ages to become apparently less when calculated on the basis of mental hospital admissions. Omitting the few children under 15, the incidence of all first attack direct male admissions was, in 1907, 62 per 100,000 of the general population over 15, and it oscillated between that figure and 59 until the war: in 1921 it was 55, and has been in that neighbourhood (mostly below it) since. So the decline is a general phenomenon, not a peculiarity limited to the older age-groups.

The striking fall in incidence among the over 65's between 1921 and 1931, continuing after the corresponding war or post-war drop for other age-groups had in most cases been stabilized, is not merely interesting in itself, but startling when compared with what has been observed in the United States. Before considering this, it is necessary to examine the incidence among women.

Here the situation is different. The incidence among the 65 and over group has fallen below the 1907 level it is true, but appears latterly to be rising, as are the incidence-rates for the other three age-groups presented. This tallies with the trend of the incidence-rate for all first attack admissions of women over 15: the rate was 57 in 1907, remained at 57 or 58 until the war, was 55 in 1921 and 52 in 1927, but by 1932 it was up to 56, and by 1936 to 62. Women, in spite of a fall in the incidence-rate which appeared during the post-war decade, are now showing much the same incidence-rate, or a higher one, than in 1907, with the exception of the over 65's, whose incidence is climbing as high as it was in the anomalous year 1910, but is still below the general pre-1914 level for that age-group.

These findings confront us with three related problems: why do women differ in this respect from men? Why has there been in the group over 65 a strong tendency for the incidence of first attack admissions to decline? And what are the causes that led to a universal decline in the incidence for all age-groups over 35 during, or for some years after, the 1914–1918 war?

It would be impossible now to enter upon the discussion of these important questions. I shall limit myself to the second, and say plainly that I think the fall in what we are calling incidence among the over 65's is due to the retention in public assistance institutions of many people who should—and would thirty years ago—have been admitted to a mental hospital.

This explanation is not a new one. Its converse was put forward by the Commissioners in Lunacy towards the end of the last century: "The upward progress . . . not in numbers only but in case of first attack out of proportion to the population seems *prima facie* to indicate the increase of insanity which has been alleged, and we must now inquire if there are any circumstances which modify its apparently significant influence. It must be remembered that the admissions which we are now considering include only those into Institutions (Asylums, Hospitals and Licensed Houses) and single care, and have no reference to workhouses, the admissions into which are not notified to us. . . . The census returns . . . give one person of unsound mind to every 329 of the population in 1871, one to 307 in 1881, and one to 298 in 1891. The percentage had, therefore, increased out of proportion to the population, but at each of the three decennial periods there

was a wide discrepancy between the numbers reported to the census authorities and those registered in our department, showing the existence of a reserve from which might be drawn a constant supply of new cases to be registered as suffering from first attacks on admission. That this process has been, and is, actually in operation may be at least inferred from the fact that whereas, as already shown, the proportion of insane to population has steadily increased in the census returns, the balance of difference between the numbers of unregistered and registered lunacy has not only actually decreased from 12,264 in 1871 to 10,588 in 1891, with a rising population, but its percentage to the census numbers shows the large reduction from 17·7 to 10·8 per cent.

"It appears, therefore, to be obvious that unregistered has been transformed into registered lunacy to an extent which must be at least an important factor in the question which forms the subject of this enquiry.

"As regards workhouses, . . . it will be seen that for many years past a progressive change has been constantly going on in the distribution of officially known pauper lunatics. While the ratio of those in County and Borough Asylums has been steadily augmenting, there has been an almost equally steady diminution in the ratio of those in workhouses and residing with relatives or others. Thus in 1859 the numbers in County and Borough Asylums were 15,291; those in workhouses, 7,963; and those with relatives or others, 5,798; giving percentages under the three heads of 49, 25 and 18 per cent., while in 1896 the numbers in County and Borough Asylums were 62,716; in workhouses, 10,906; and resident with relatives or others, 5,924; giving percentages of 71·7, 12·5 and 6·7 per cent. respectively. As in the cases of those in workhouses and with relatives or friends no statement was made to our department whether they were the subject of first attacks or not, it is more than probable that a large proportion of them were admitted into Asylums to swell the percentage of those who were stated to be suffering from first attacks, and so far to convey the impression that theirs were true cases of newly-occurring insanity.

"Without being able to assert definitely that the disproportionate growth of such cases . . . may not in part have arisen from some actual increase of the disease insanity, the facts above stated at least warrant the assumption that much of the apparent increase in first admissions has been due to the gradual absorption by official registration of an unregistered reserve, and to the redistribution of those already registered, but not yet classed as cases of first or occurring insanity." It seems that of late years the reverse process to this has been taking place.

The 1911 Census was the last in which the form included a question whether any of those in the house were mentally disordered: therefore the material on which the Commissioners based their main argument has not since then been available. But if such data as those published by the L.C.C. are examined, they point in the direction I have mentioned. Thus in 1932 the summary statistics of "principal disease or condition treated" in patients who were discharged from or who died in an institution (other than mental hospitals and other specifically psychiatric places) show that during the year 5,348 conditions were cared for in the Public Health Institutions (which would, it

seems, include the observation wards), and 7,714 cared for in the Public Assistance Institutions. Now in the category of mental diseases are listed 1,058 of the 5,348 in the hospitals, and 1,346 of the 7,714 in the Public Assistance Institutions. A further 566 in the Public Health Institutions are listed as "Senile Decay and Senile Dementia"; and a further 908 receive this label in the Public Assistance Institutions. The figures for the Public Health Institutions are so closely related to admisions to Tooting Bec, etc., that it would be a mistake to read much into them: but it is clear that in what used to be called the "workhouse" two-sevenths of the residents are recognized as mentally disordered, and to an eighth of the residents the specific diagnosis "senile decay and dementia" is applied. This is, moreover, in London, where facilities for classification and appropriate disposal are at an exceptionally high level.

It is unsafe to draw conclusions from such figures as I have just quoted unless one has first-hand knowledge of the institutions and of the manner in which the statistics have been collected; as I lack this I will only point to the probable bearing they have on the apparent decline in incidence of "first attack admissions" among people over 65. I have had the opportunity during the past year of visiting a number of public assistance institutions in England and Scotland in which elderly people were being cared for, and I gained a strong impression that there were many demented old people in these places: this impression was confirmed in some of them by the doctor attached to the institution and by the matrons or sisters in charge who had been mental nurses.

It is a moot point whether harmless old people with perhaps gross but unobtrusive mental impairment should remain in a public assistance institution to which they are accustomed rather than be removed to a mental hospital. On the whole, it seems undesirable that they should, at any rate until public assistance institutions and infirmaries make in general much better provision for the nursing of senile dements than at present, and until local authorities take the enlightened view which was expressed by the Metropolitan Asylums Board in 1924: "For some years past the Board has had in mind the need for some change in the method of dealing with poor persons who, at an advanced age, require institutional care and treatment on account of mental infirmity. Hitherto the Board has had no power to receive such cases, except those expressly certified to be insane, and although the class of aged persons referred to cannot be regarded as insane within the ordinary meaning of the term, there has been no ready means of securing for them the care and attention they needed, without certification. . . . The matter is by no means trivial . . ." The instrument which the M.A.B. then obtained from the Minister of Health does not unfortunately seem to have been the precursor of many such enactments establishing smaller places elsewhere which would be similarly entrusted with the valuable and specific duties for which Tooting Bec was set aside in London. It must be remembered, in this connection, that Tooting Bec is not listed as a mental hospital, nor are the patients admitted there counted in the Board of Control's statistics. If, for example, the 549 patients (214 men, 335 women) directly admitted to Tooting Bec in 1932

had been added to the first attack admissions in the table, the incidence-rate for men would rise from 78 to 94, and that for women from 72 to 91.

In view of these considerations, it can, I think, safely be assumed that the incidence of mental disorder among the elderly is considerably higher than the figure derived from mental hospital admissions alone, and that many elderly people with fairly gross mental impairment are in public assistance and similar institutions. The administrative and economic reasons for this had operated for years before 1939, but altering the situation, so far as alteration would be proper, has of course been made much more difficult by the material effects of the war.

It is instructive and startling to contrast the figures I have been showing with those published in the U.S.A. In New York State the rates of first admissions in 1940–41 per 100,000 general population were :

TABLE VII.—*Rates of First Admissions to all Mental Hospitals in New York State*, 1940–41, *per* 100,000 *Corresponding General Population by Age and Sex.*

Age-group.	Males.	Females.	Both sexes.
0–14	10	4	7
15–19	64	53	59
20–24	106	82	94
25–29	111	101	106
30–34	119	106	112
35–39	128	120	124
40–44	130	115	123
45–49	134	130	132
50–54	158	149	154
55–59	178	151	165
60–64	227	177	202
65–69	291	242	266
70 and over	541	478	506
All ages	122	110	116

Tietze's comment on this is, " The table presents a familiar picture. The rates increase with age steeply and almost uninterruptedly. . . . The male rate exceeds the female rate at all ages, the excess ranging—beyond the age of 15 years—between 3 and 29 per cent." He calls it a familiar picture, but it is not the one we are familiar with : the rates are astoundingly higher than ours, especially in the 65 and over age-groups, and the sex difference is the reverse of ours in 1937. In Massachusetts it is much the same story, as may be plainly seen in Age Graph 8 in Dayton's " New Facts on Mental Disorder." Here again the admission-rate is much higher than ours, it has increased steadily in the higher age-groups during the inter-war period, and it is the men who have the higher admission-rates. There can be little doubt that the reasons for this extraordinary difference from the English trends are to be found in the social environment of the two nations. Economic fluctua-

tions, social legislation, public and private attitudes call for detailed study if we are to explain the differences. It is then a roundabout road we have traversed, bringing us by way of mental hospital statistics to a point where we must look closely at the polity in which we live. Miss Goldschmidt will be dealing with some broad aspects of this; but a satisfactory answer to the questions raised by these figures would demand much more study of extra-personal influences on the process of ageing than has hitherto been devoted to them.

Before quitting the American figures, which differ so much from ours, I think there are two lessons we can learn from them. One is that administrators are prone to take an unduly simple view of the matter if a rise in admissions of aged people is forced on their attention, and that they delay over-long to profit by the lessons which a continuous study of the statistics and the questions raised by the statistics could teach them. It was only in 1944, through a special Commission appointed to survey the New York Department of Mental Hygiene, that recognition was given in that State to the truth that the care of the aged who were being admitted in such large numbers to the mental hospitals involved much more than the mental hospitals: "it is closely related to the problem of the care of chronic illness, a field of social responsibility almost as much neglected to-day as mental illness was a hundred years ago." The rise of family care for such patients is another activity in which, as Miss Crustcher's book so well shows for New York State, much might be done. The difficulties of family care have often been stressed, and indeed over-stressed, to the neglect of those positive and organized efforts which are necessary to make family care a success in a modern Western community.

What do the figures we have been looking at portend? According to the very conservative estimate of the Registrar-General, persons over 65 will in 1951 form 11·6 per cent. of our whole population, and by 1971 they will form 17 per cent. of it. In his forecast he does not give separate figures for men and women. I have assumed that the proportion of males to females over 65 will continue to remain fairly constant, and have taken the proportion at the last census, which yields for the 5,511,000 whom the Registrar-General forecasts for 1951, 2,365,000 males and 3,146,000 females. Similarly, of his 7,863,000 in 1971, 3,375,000 will be males and 4,488,000 will be females. On the 1937 incidence-rate this means that in 1951 there will be 1,870 male and 2,420 female first attack admissions of people over 65; in 1971 there will be 2,670 male and 3,460 female first attack admissions.

A similar calculation for the 45–65 age-group yields 4,450 male and 5,440 female first attack admissions in 1971. Altogether, therefore, the number of first attack admissions of persons over 45 will in 1971 be 16,020, which is only 3000 less than the total first attack admissions for all ages in 1937 (19,160). That is an arresting thought.

Dr. Kuczynski and other authorities censure the Registrar-General's estimate as too optimistic: but if their criticisms are just they would affect only the proportion of young and old people in the community, not the total number of persons who will be over 45 in 1971 (who are, of course, already born): therefore the number of persons at risk in these age-groups will be

approximately as he forecasts, apart from any changes that may occur in expectation of life during the next quarter century. But, on the other hand, I have given reasons for believing that the incidence-rate based on admissions to mental hospitals for the over 65's affords a misleadingly low figure, and that the amount of mental infirmity in this age-group is far more than any available figures in this country reveal. If we provide special psychiatric facilities, whether separate (as at Tooting Bec) or in appropriate institutions, such as the mental hospitals or the infirmaries attached to public assistance and similar establishments for the aged and the chronic sick, then the number of first attack admissions in the higher age-groups will be undoubtedly much above the figures just given for 1971, high though these were.

I think it is pretty clear where all this leads. We must regard the mental disorders of the elderly as likely to be responsible within the next thirty years for the bulk of the patients admitted to mental hospitals. It is, of course, not possible to forecast the number of beds that will be required for patients of the higher age-groups, since that will depend not only on first attack admissions of the elderly but also on readmissions, and on the size of the younger population at risk and the success of measures designed to restore the patients' fitness for ordinary life in the community, or if that is impossible to prolong their lives within the institution. To calculate the bed needs, it would be necessary to ascertain, not merely the expectation of mental disorder in the general population (as has been done by Malzberg, Tietze, and others in the United States, and in this country by Slater), but also the expectation of mental hospital stay, both figures calculated for the individual mental disorders.

This brings up the objection to some of the figures I have presented, that they are not analysed according to individual disorders, and that it is therefore wrong to assume that the mental disorders coming on for the first time and leading to admission after the age of 65 are necessarily senile. This objection would have weight if we could define senile disorders otherwise than as organic disorders occurring in the senium. There is not the time now to enter into the clinical questions raised by the issue of diagnosis and terminology. It is an issue of great importance; because it is in a mess, the delimitation of the clinical problems for study is needlessly difficult. Dementia, deterioration, decay, senility and presenile psychoses are terms used without precision, and such a distinction in diagnosis as between arteriosclerotic psychoses and senile psychoses becomes the occasion of statements and disputes which are at bottom due to a semantic, not a medical difficulty. Until the clinical issues here involved are cleared up, I think the pathologists will find it hard to correlate their findings with the morbid clinical features or to provide a sure basis for nosological accuracy. The psychologists are labouring to provide a measure of some aspects of the impairment common in old age, but are some way from being able to measure dementia, far less to detect it. But the clinical psychiatry of old age still offers rewards even to the despised descriptive method. The clinical is probably now the most neglected field in the study of the psychiatry of ageing. Such an investigation as that which W. H. Gillespie undertook is as illuminating and perhaps more urgently needed than

some of those expositions of psychopathology or physical treatment to which scores of papers are devoted every year. I would therefore plead for a greater interest in the straightforward clinical aspects of mental disorder as seen in the aged. It is the preliminary, or the complement, to study of that normal process of ageing, which proceeds at such varying rates and in such varying forms in different people. Normal ageing is the centre of our problem: in it, and in the social influences that bear upon it, probably lies the main answer to our question: what causes senile aberrations and how can they be prevented or delayed?

I have not succeeded in covering as much of the general problem as I had hoped. There are so many aspects, so many stimuli to investigations that no one can go far without being beguiled into a side path. There is now a welcome activity in regard to the mental disorders and related problems of ageing, betokened by the studies we are to hear about to-day and work like that of Dr. Post in Edinburgh and Mr. Raven in Dumfries. But it is doubtful whether there is a wide enough recognition of how fascinating the problems are, and how pressing the theme. It touches at every point the knowledge, and exposes the ignorance, which make up our current psychiatry.