

# The Cost of Mental Care



Previous O.H.E. publications:

1. <i>Progress against Tuberculosis</i>	2s. 0d.
2. <i>The Lives of Our Children: A Study in Childhood Mortality</i>	2s. 0d.
3. <i>Hospital Costs in Perspective</i>	2s. 0d.
4. <i>Pneumonia in Decline</i>	2s. 0d.
5. <i>Health Services in Western Europe</i>	2s. 6d.
6. <i>The Price of Poliomyelitis</i>	2s. 0d.
7. <i>The Personal Health Services</i>	2s. 0d.
8. <i>The Venereal Diseases</i>	2s. 0d.
9. <i>Infants at Risk</i>	2s. 0d.
10. <i>The Costs of Medical Care</i>	2s. 0d.
11. <i>The Finance of Medical Research</i>	2s. 0d.
12. <i>New Frontiers in Health</i>	2s. 0d.
13. <i>The Pattern of Diabetes</i>	2s. 0d.
14. <i>The Pharmacist in Society</i>	2s. 0d.

Survey:

1. <i>The Residue of Poliomyelitis</i>	25s. 0d.
--	----------

*Cover:* An illustration from Daniel Hack Tuke's (1827-1895) *Chapters in the History of the Insane* (1882), showing a ward in Bethlem Hospital about 1745. Daniel Tuke, a great grandson of William Tuke the founder of the York Retreat, and a consultant of some standing, was among those vilified in the agitation leading up to the passing of the 1890 Lunacy Act. In a sombre editorial in the *Journal of Mental Science* in 1884 he warned "troublesome times are before those entrusted with the care of the insane . . . Lunacy law will be amended or probably re-made, and the foundations will be laid at the cost of some martyrs".

Print by courtesy of The Wellcome Historical Medical Museum and Library.

The Cost of Mental Care

# The Cost of Mental Care

The cost of mental care is a complex issue that involves many different factors. It is important to understand the various costs associated with mental health services, including direct costs, indirect costs, and the overall impact on society. This report provides a comprehensive overview of the current state of mental health care costs and offers recommendations for how to reduce these costs while maintaining the quality of care.



Office of Health Economics

---

62 Brompton Road London S.W.3.

Number 15 in a series of papers on current health problems published by the Office of Health Economics and sent without charge to selected readers. Additional copies are available at 2s. 0d. For previous papers see inside front cover.

© February 1965, Office of Health Economics

# The Cost of Mental Care

EXPENDITURE by the National Health Service in England and Wales on patients suffering mental disorders currently exceeds £130m. a year, about one-eighth of the total health services' expenditure. This large amount spent on mental disorder is only one side of the picture. The cost of treating diseases must be set against the cost of not treating them. More effective and expensive medical procedures may in fact reduce the total costs of sickness. The total cost of sickness comprises not only the direct costs of medical care, but also the indirect costs of incapacity borne by the patient and his kin.<sup>1</sup>

This paper estimates and discusses the expenditure by the health and welfare services on mental disorders, in relation to trends in patient care. Through changes in policy and advances in therapeutics the pattern of care has altered, allowing the psychiatric services to be used by a greater number of patients. This trend has raised the amount spent on mental disorders. The benefits the community receives from this greater expenditure are, however, not capable of being measured precisely. Far more needs to be known about the impact of the changed pattern of care on the current life of the mentally disordered and their kin and on the prognosis of the diseases. The extended scope of the services is bringing psychiatric care for the mentally ill to more people at a far earlier stage than previously. The closer integration between the psychiatric services and the community may possibly alter the outlook for mental illness. In this case the full benefits may not be realised until several decades have passed. The foundations of mental health are laid early in life, and so the improvement from greater understanding and more effective medical care takes only one step forward with each generation.

Historically, the direct costs and problems of mental illness have been largely the long-term custodial care of the severely ill patient. Currently, costs involve both this and the further costs arising from expansion of the scope of medical care. If prognosis improves in the future as a result of this expansion, costs of mental care will involve a diminishing part of long-term custodial care and a greater element of specific effective therapy.

### *History of Mental Care*

The history of most common diseases over the past two hundred years is generally the story of clinical progress from empirical observation of symptoms, descriptions of morbid anatomy, the identification of causative agents leading eventually to the discovery of effective means of prevention, cure or control. The history of mental disorder is different: it is largely the story of the patient's status and his legal and social standing in the community. There are exceptions where clinical progress in understanding certain physical illnesses has radically influenced what once were considered 'mental conditions', as with syphilis and 'general paralysis of the insane', with thyroid deficiency and cretinism, with phenylketonuria and mental subnormality. But these do not represent the broad advance in knowledge of mental disorders. For the most part—at least until recent decades—progress in patient care has been social, administrative and legal rather than clinical.

The landmarks in the history of mental disorders are five Acts of Parliament, the Lunatics Act, 1845, the Lunacy (Consolidation) Act, 1890, the Mental Deficiency Act, 1913, the Mental Treatment Act, 1930 and the Mental Health Act, 1959. The evolution of the titles summarizes the changing outlook of the community on mental disorder over the century separating the Acts of 1845 and 1959.

Before the industrial changes of the first half of the nineteenth century, the problems of mental disorder could be dealt with casually but effectively in the small, mainly rural communities.<sup>2</sup> The growth of industrial towns and cities, however, made the problems acute. There were a small number of refuges under a variety of control and administration, such as Bethlem in London or the York Retreat, run as charities by trustees, or private asylums, only some of which were subject to

public inspection; also a small number of county asylums, built under a permissive act of 1808 and managed by committees of magistrates. The majority of the mentally disordered remained in workhouses or prisons or lived as 'single lunatics' under the care of a guardian.

The Act of 1845 marked an era of reform. It crowned the early work of Lord Ashley (the seventh Earl of Shaftesbury). As Chairman of the Lunacy Commission, established by the Act, his humanitarian care and concern for the individual had a nation-wide effect. The Act covered all the mentally ill except those confined privately in their homes. The Lunacy Commission had powers of inspection and laid down minimum standards, but more important, it was able to encourage higher standards by advice and consultation through spreading information about new methods and experiments.

Matching these administrative reforms, there developed a new approach to care and treatment. The old physical methods of treatment and restraint—bleeding and purging, leg-locks and strait jackets—were generally discredited. The asylum doctor began to acquire professional standing. An amending Act of 1853 among other things eased the processes by which a county asylum (thereafter public asylums) could be established. These buildings were smaller and more personal than those usually associated with Victorian institutions. In 1850, 24 public asylums had an average 297 patients. Experiments were initiated in the education and rehabilitation of the mentally ill. Under Shaftesbury's guidance, the Lunacy Commission worked to secure easier methods of admission for early treatment and discharge.

The hopes of the Commission were not fulfilled. Public concern over the dangers of improper detention and infringement of the liberty of the subject, aroused by sensational stories like the novel *Hard Cash* by Charles Reade, published in 1863, and fostered by a notorious law suit, *Weldon v. Winslow* (1884), led to the Lunacy (Consolidation) Act 1890. Under it the Lunacy Commission became the Board of Control. The main provisions of the Act concerned admission and certification. It established stringent regulations to safeguard against any possibility of wrongful detention, of unjustifiably depriving a man of his personal liberty.

In effect, however, it meant that asylums could take only certified patients, and patients could not be certified until their

condition was blatant. Asylums became a place of last resort, and they provided little diagnosis or treatment in the early stages of mental illness. They became divorced from progress in understanding of mental illness. With isolation came an increase in size. The barrack-like structures in use today were the products of the late Victorians: by 1900 the 77 public asylums averaged 961 patients. The work was routine, and doctors who wished to specialise in psychiatry avoided a sphere where there was little room for improvement. New techniques by-passed the asylums completely.

The 1890 Act also applied to mentally subnormal patients. Separate institutions for mentally subnormal patients such as Park House, Highgate (now Earlswood Hospital) supported by charitable donations and the Northern Counties Asylum for Idiots and Imbeciles (now the Royal Albert Hospital) were founded in the mid-nineteenth century. These institutions came under the supervision of the Lunacy Commissions but voluntary bodies played a larger part in the work for mentally subnormal than they did for mentally ill patients. These voluntary bodies, principally the National Association for the Care of the Feeble-Minded (later amalgamated to form the Mental Health Association, the forerunner of the National Association for Mental Health), dealt largely with case work and ascertainment. Their activities and agitation led to the passing of the Mental Deficiency Act 1913. Although this Act was concerned with the definition, certification and detention of the mentally subnormal, it contained provisions under which local authorities were empowered to establish special mental deficiency committees, whose responsibilities included the care of 'mental defectives' living in the community. This was the germ for the development of community care for all the mentally disordered.

Many local authorities, under the Act, financed voluntary mental welfare associations which had sprung up in the last few years, rather than appoint officers of their own. The Central Association for Mental Welfare was formed to co-ordinate the work of local bodies and to encourage the implementation of the Act. The responsibilities of local authorities for training and occupation were increased by an amending Act of 1927, which also broadened the definition of mental deficiency to recognise that injury or diseases such as encephalitis and meningitis result in arrested development.

The isolation and segregation of the mentally ill, as a result

of the 1890 Act took longer to breakdown. The stimulus came from outside the existing administrative structure. In 1907, Dr Henry Maudsley offered the L.C.C. £30,000 to found a new mental hospital on three conditions: it was to deal exclusively with early and acute cases: it was to have an outpatients department: and it was to provide for teaching and research. The hospital was completed in 1915 and parliamentary sanction given for it to admit patients without certification.

The principle of voluntary admission was extended to all mental hospitals by the Mental Treatment Act of 1930. The Act also reorganised the Board of Control, gave official sanction to the establishment of outpatient clinics and observation wards and abolished the terminology of the Poor Law. The Act, however, was really no more than a circumvention of the 1890 principles: nor did it make provisions for community care of the mentally ill. This came eventually in 1959.

Between the 1930s and the 1959 Mental Health Act progress in medicine went far to make it possible for the mentally ill to live in the community and for mental hospitals to become places of treatment rather than custody. Techniques of physical treatment, particularly electro-convulsant therapy (E.C.T.) were introduced, while from 1955 new tranquillisers, particularly chlorpromazine and reserpine, and later the anti-depressant and other psychotropic medicines, reduced durations of stay and brought hope for the long-stay patients. Within the hospital, tranquillisers could bring the agitated patient under control without massive sedation. Hospitals could open many wards and need not depend on the restraints of locked doors.

The Mental Health Act, 1959 repealed all previous legislation on mental disorders. The Board of Control was dissolved and its functions transferred, in the main, to the Ministry of Health. The duties of local authorities concerning community care, particularly in the provision of residential accommodation, training and occupation centres were defined, arrangements were made for admission of patients to mental hospitals without any legal formalities and the legal distinctions between mental and other hospitals were ended.<sup>3</sup>

## The Cost of Mental Disorders

THE cost of the care and treatment of mental disorders under the National Health Service in England and Wales amounted to approximately £132m. during 1963. The sources and build-up of this estimate are described in the appendix. The estimate covers hospital in-patient and out-patient care for mental illness and mental subnormality, a proportion of the cost of general practitioners' service for these and for related diagnosis and for the estimated costs of the medicines prescribed, together with the expenditure by local health authorities on mental health. The estimates do not include capital expenditure or any notional amortisation charges.

The costs of mental disorder, for the years 1961, 1962 and 1963 borne by each of these services is given in *Table A*. In this period, total expenditure rose by 14 per cent but this rise was not proportionately greater than the rise in total N.H.S. expenditure. Mental disorders in each of these years accounted for approximately 13 per cent of the total health service expenditure, or 2s. 8d. in every pound.

The hospital services bear the greatest part of the cost of mental disorder. Between 1961 and 1963, the proportion spent on hospital treatment declined slightly from 84 per cent to 82 per cent and this was offset by a corresponding rise in the share of costs by local health authorities, from 5 per cent to 7 per cent. The proportion borne by the general medical and the pharmaceutical services remained constant at 4 per cent and 7 per cent respectively.

The high proportion of costs for hospital care reflects the intractable nature of the medical problems which mental disorders still present. In its advanced form the condition is not fully reversible nor generally is it subject to spontaneous

**Table A**

### The Cost of Mental Disorders. N.H.S. England and Wales 1961, 1962 and 1963.

Source: Appendix.

Note: Estimates include expenditure on both mental illness and mental subnormality.

<i>N.H.S. Services</i>	<i>Cost of Mental Disorders</i>			<i>Proportion of Total Expenditure on Services</i>		
	1961	1962	1963	1961	1962	1963
	£m.	£m.	£m.	%	%	%
Hospitals	96.5	101.5	109.3	21	21	21
General Medical	4.0	4.3	4.6	5	6	6
Pharmaceutical	7.6	8.3	8.6	9	10	9
Local Health	6.2	7.5	9.5	8	9	10
<i>Totals</i>	114.3	121.6	132.0	13	13	13

remission. Furthermore, unlike cancer which at present shares these two characteristics, it is not fatal and thus the medical services are faced with the long-term care of the patient.

Much of the expenditure on mental disorders is, therefore, domestic, on items such as catering, heating, lighting, laundering and building maintenance costs. An analysis of expenditure on mental disorders in the hospital services which shows the proportions spent on domestic items, on nursing care and on 'therapy', (i.e. medical and professional staff costs, medicine, dressings and medical appliances), is given in *Table B*. A similar breakdown of costs in acute non-teaching hospitals is given for comparison.

The differences are striking. All but 2 per cent of hospital expenditure on mental disorders is for in-patient care, while 18 per cent of expenditure in acute hospitals is on out-patients. Therapy, both in-patient and out-patient accounts for 12 per cent of hospital expenditure on mental disorders, compared to 34 per cent for all diagnoses treated by acute hospitals. Domestic and nursing items represents 88 per cent of the hospital expenditure on mental disorders but only 66 per cent in acute hospitals.

The level of expenditure, which to a large extent reflects differences in standards of provisions, is substantially greater in acute hospitals than for the treatment of mental disorders. Expenditure on 'therapy' is seven times greater and expenditure on both nursing and domestic items is three times greater in acute hospitals, per patient week. The differences are found in most of the items included in these broad sub-divisions of costs per patient week: catering, for example, averages under £2 per patient week in mental illness hospitals compared with more than £5 in acute hospitals. The reasons for this discrepancy in standards are many: the needs for post-operative nursing care in acute hospitals are far greater than occur with mental disorders. Much of the large discrepancy in standards may, however, arise from the historical difference between psychiatric and general hospitals. Mental hospitals are traditionally long-stay institutions where entirely different standards may persist. General hospitals are short-stay institutions, and conditions, standards and environment have needed to keep in step with the normal expectations of the community.

The hospital services do not bear the whole costs of domestic care for mental disorders; some part is now borne by local

**Table B****Hospital Costs of Mental Disorders, England and Wales 1963.***Source: Appendix.**Note: Estimates include expenditure on both mental illness and mental subnormality.*

<i>Items</i>	<i>Mental Disorders</i>			<i>Acute Hospitals</i>	
	<i>£m.</i>	<i>%</i>	<i>Cost per patient week</i>	<i>%</i>	<i>Cost per patient week</i>
			<i>£</i>		<i>£</i>
Therapy	10.5	10	0.93	16	6.47
Nursing	35.3	32	3.47	23	9.03
Domestic	61.6	56	6.04	43	17.29
<i>Total In-patient</i>	107.4	98	10.44	82	32.79
			<i>Cost per attendance</i>		<i>Cost per attendance</i>
Out-patients	1.9	2	1.34	18	1.18
<i>Total Hospital Services Costs</i>	109.3	100	—	100	—

health authorities through the provision of hostels. Taking expenditure by all services together, custodial care for mental disorders including domestic services and nursing, amounts to £98m. or nearly 75 per cent of the total spent on mental disorders. Therapy in hospitals and in general practice amounts to nearly £27m. or 20 per cent of the total. The balance represents local health authority expenditure on occupational units and other welfare services.

The changing pattern of medical care for mental disorders initiated by the Maudsley experiment and formally embodied in the Mental Health Act 1959, represents a shift in emphasis in hospital care from long- to short-stay and a correspondingly greater part to be played by non-institutional health services. Trends in the costs of mental disorders need to be examined against the changing pattern of patient care.

## Trends in Patient Care

THERE have been considerable changes in the pattern of care for mental illness. The changes are characterised by a substantial increase in admissions to mental hospitals, a faster rise in the number of discharges leading to a reduction in the average length of stay and, since 1954, a fall in the total number of in-patients in mental illness hospitals. With mental deficiency there has been far less change, and the numbers of in-patients have gradually risen.<sup>4</sup>

Between 1949 and 1960, annual admissions to mental illness hospitals rose by 59,000, thus more than doubling from 55,000 to 114,000 a year. Discharges, excluding deaths in hospital, rose by 61,000 a year, from 42,000 to over 103,000. The number of in-patients rose slowly up to 1954, reaching 148,000: thereafter, with the more rapid increase in discharges over admissions, the numbers of in-patients declined continuously, falling to approximately 135,000 by 1960. These figures refer to patients treated in mental illness hospitals only. An estimate of the numbers of discharges and deaths of patients suffering mental disorders from non-psychiatric hospitals is available from 1955. Between 1955 and 1960, the numbers remained reasonably constant between 38,000 and 39,000 patients a year. Contrary to the trend in psychiatric hospitals, the average duration of stay for mental disorders of patients discharged from non-psychiatric hospitals rose slightly between 1957 and 1960<sup>5</sup> (*Fig. 1*).

In mental deficiency hospitals, the number of patients rose steadily between 1949 and 1955, reaching nearly 59,000. Thereafter, the rise continued but at a slower rate. Both admissions and discharges rose throughout the 1950s, but as these were small in relation to the total number of residents,

Thousands

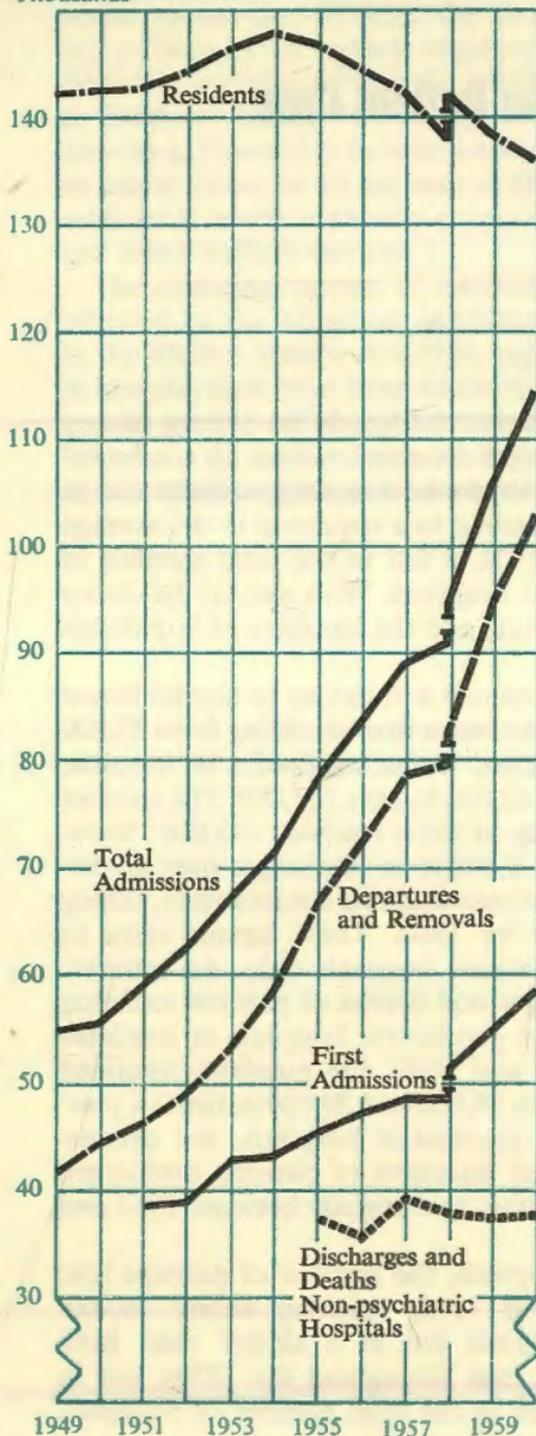


Fig. 1

**Mental Illness Hospitals. Admissions, Discharges and In-patients. England and Wales 1949-1960.**

Source: Registrar General. Supplement on Mental Health 1960. M.1(a). H.M.S.O. 1964.

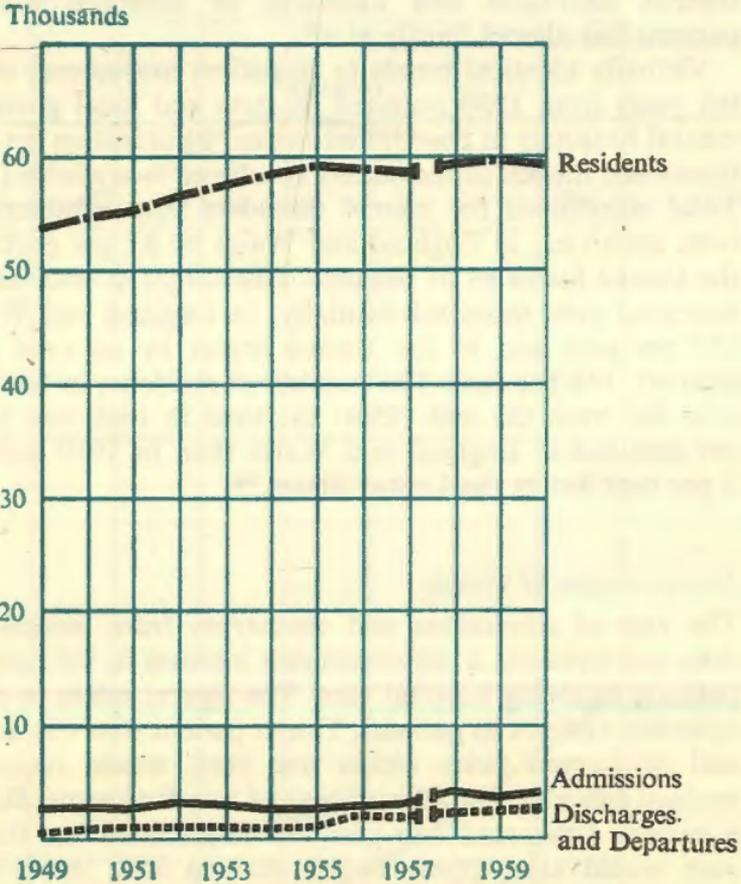
Note: Following the re-designation of beds under the Mental Health Act 1959 figures for 1958 and 1959 are not fully comparable.

**Fig. 2**

**Mental Deficiency Hospitals. Admissions, Discharges and In-patients. England and Wales 1949-1960.**

Source: Registrar General. Supplement on Mental Health 1960. M.1(b). H.M.S.O. 1964.

Note: Following the re-designation of beds under the Mental Health Act 1959 figures for 1958 and 1959 are not fully comparable.



this trend made little significant difference to the total in-patient population. Compared to mental illness hospitals, where for every hundred in-patients at the end of 1960, 75 cases had been discharged within that year, there were only five discharges per hundred residents from mental deficiency hospitals. (Fig. 2).

The principal changes have therefore taken place in the care of mentally ill patients in psychiatric hospitals. The position as regards admission and discharge of mentally subnormal patients has altered hardly at all.

Virtually identical trends in in-patient movements over the ten years from 1950 occurred in state and local government mental hospitals in the United States. Information on mental illness and mental subnormality combined is available (Fig. 3). Total admissions for mental disorders rose substantially in both countries; in England and Wales by 87 per cent and in the United States by 86 per cent. Discharges in both countries increased even more substantially; in England and Wales by 117 per cent and in the United States by an even greater amount, 148 per cent. The number of residents in both countries fell from the mid-1950s: the total in 1960 was about 4 per cent less in England and Wales than in 1950 and about 2 per cent less in the United States.<sup>6\*</sup>

### *Interpretation of Trends*

The rise of admissions and discharges from mental illness does not represent a commensurate increase in the number of patients receiving hospital care. The figures relate to medical episodes, and not to patients. Thus a patient who was admitted and discharged twice within one year, would record four medical episodes; two admissions and two discharges. Similarly, a patient discharged one year but re-admitted the following year would also appear twice; once in each year's figures. This factor complicates the interpretation of the trends.

As, however, the number of first admissions to mental illness hospitals rose by nearly 20,000 from 39,000 to 59,000 between 1951 and 1960, there was certainly an increase in this period in the number of patients who received hospital care.

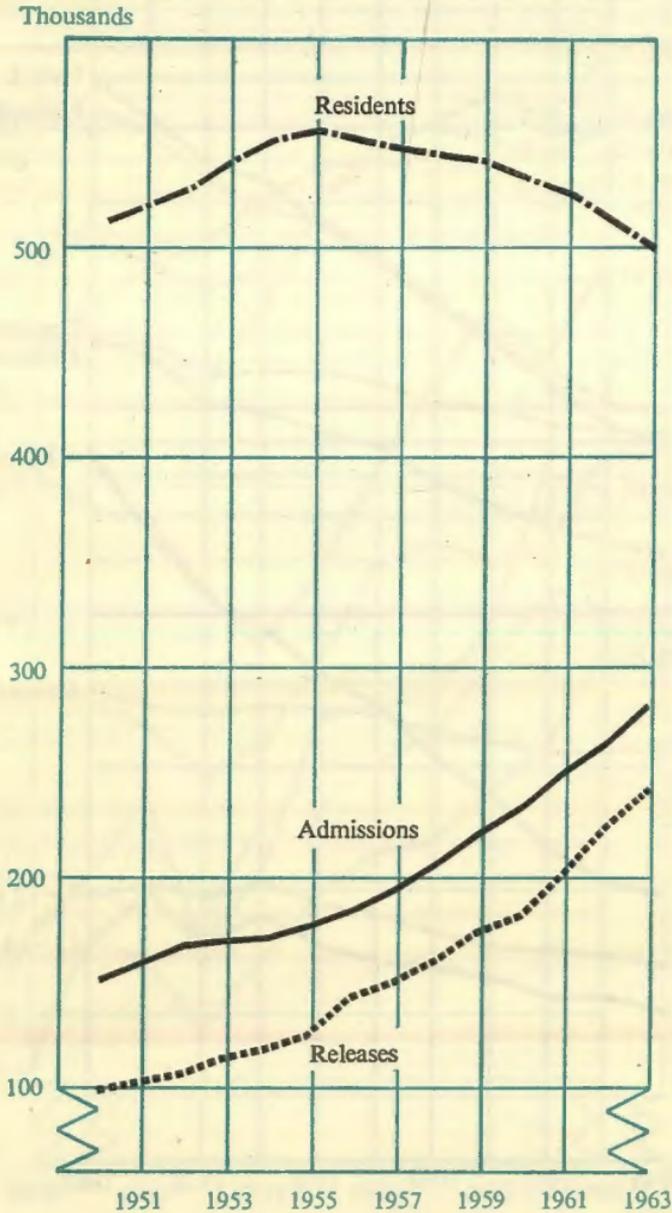
\*The percentage of changes for England and Wales are calculated after making a proportionate change to the 1960 figures to allow for the re-designation of beds in 1958.

**Fig. 3**

**Patients in State and Local Government Mental Hospitals.  
U.S.A. 1950-1963.**

Source: U.S. Dept. of Health, Education and Welfare *Mental Health Statistics: Current Reports.*

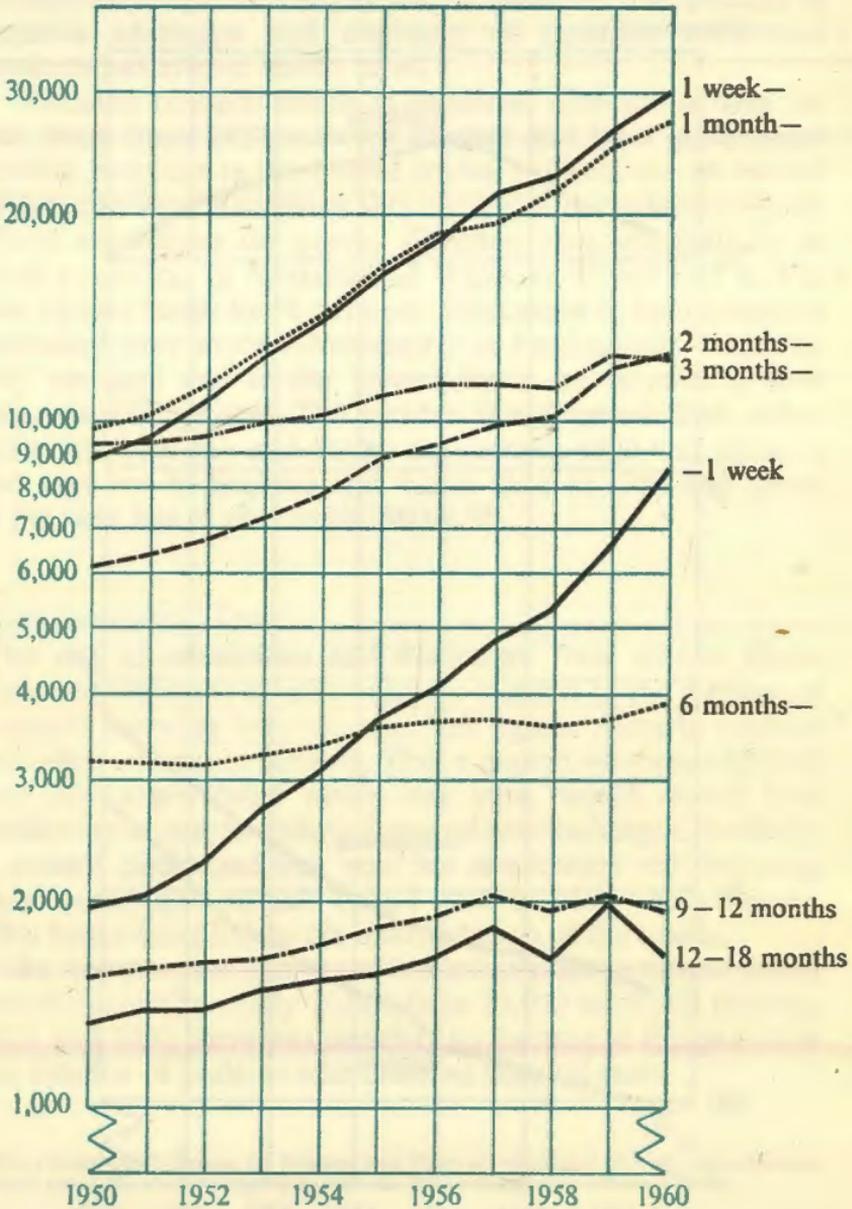
Note: Figures are for mental illness and mental subnormality combined.



**Fig. 4**

Numbers of Discharges from Mental Illness Hospitals by duration of stay for patients in hospital up to 18 months. England and Wales 1950-1960.

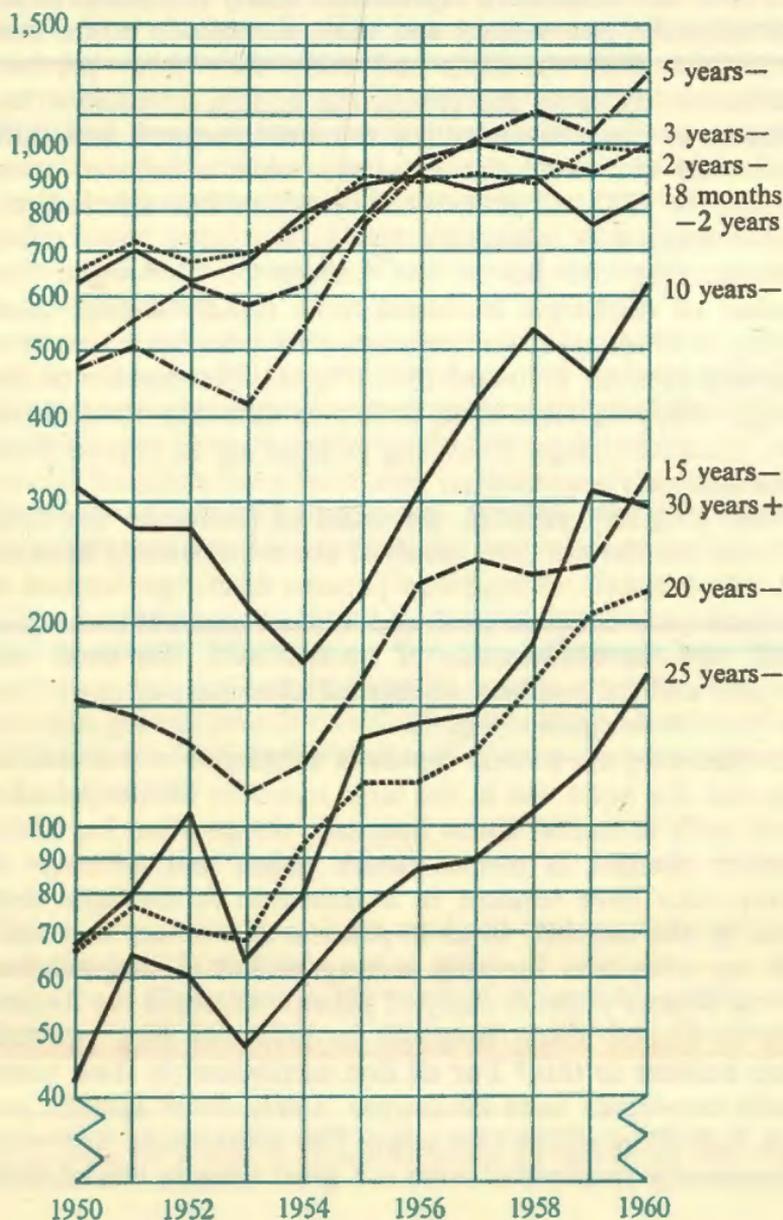
Source: Registrar General. Supplements on Mental Health. Various Years. H.M.S.O.



**Fig. 5**

Numbers of Discharges from Mental Illness Hospitals by duration of stay for patients in hospital over 18 months. England and Wales. 1950-1960.

Source: Registrar General, Supplements on Mental Health, Various Years. H.M.S.O.



The rise in re-admissions to mental illness hospitals has been faster than the rise in first admissions. Between 1951 and 1960, the numbers entering hospitals for the seventh or more occasion rose from 460 to 3,500: the numbers entering hospitals for the fifth and sixth occasion rose from 1,570 to 8,380 while third and fourth admissions increased from 6,220 to 11,140. Second admissions increased from 12,330 to 24,680.

In 1951 first admissions represented nearly two-thirds of the total admitted and second and third admissions under one-third. Less than one-tenth had more than three previous admissions. By 1960, the proportion of first admissions had dropped to just over one half the total: second and third admissions accounted for one-third while a fifth of those admitted in 1960 had more than three previous admissions.<sup>7</sup>

The changes in admission and re-admission rates reflect corresponding changes in the pattern of discharges. The number of discharges increased most rapidly among those staying in hospital for less than one week: the figure rose over four-fold between 1950 and 1960 (*Fig. 4*). The number of discharges following stays of up to two months rose about three-fold, while discharges following stays of up to two to three years rose only moderately.

With long-stay patients, the trend of discharges has been different but the numbers involved are not relatively substantial. The numbers of long-stay patients discharged tended to fall each year between 1950 and 1953. From 1954, the year which saw the introduction of tranquillisers, this trend was reversed and the numbers discharged after stays of more than five years rose rapidly. (*Fig. 5*).

Considering the general trends of admission and re-admission and the rapid rise in the large numbers discharged after short spells in mental illness hospitals, the question has arisen whether changes in mental health policy and advances in therapeutics have resulted in a reduction in the total time spent by the mentally ill as in-patients or whether they have split up what was formerly a long period in hospital into several shorter visits. A study of patients admitted for the first time to mental illness hospitals in 1955 and 1956 provides some answers to this.<sup>8</sup> For all first admissions in these years, nearly two-thirds were discharged within three months and over four-fifths within two years. The proportions who were subsequently re-admitted were not great. One in five of those

first admitted in 1954 and 1955 were subsequently re-admitted for a second spell, while only one in twenty were admitted again for a third spell in hospital by the end of the calendar year following that of admission.

It would appear from the trends of admissions and discharges that three groups are emerging in the mental illness hospital in-patient population. The first and largest with the greatest absolute increase since 1950 is patients admitted for one or two short spells. The second group which appears at present to be small but growing rapidly comprise patients who are repeatedly admitted and discharged from mental hospitals. The third group is the inherited population of the long-stay permanently institutionalised patients, which should slowly diminish. Generally, mental health policy has made it possible for a larger number to receive in-patient care for a greater number of shorter periods. The scope of the service has thus been expanded.\*

The experience of different hospitals has, however, varied widely: the trends in patient care are not uniformly shared. The ratio of admissions in a year to the number of staffed beds available provides a guide to the extent to which different mental hospitals have been able to increase their intake and discharge of mentally ill patients. For the year 1960, figures from different hospitals show ratios ranging from as little as 5 to as much as 771 per cent.<sup>9</sup> The different ratios represent the difference between what are in practice long-stay and short-stay hospitals. The reasons for the differences are many, including size, policies of hospital boards, or individual consultants, general practitioners' referral habits and even perhaps differences in local health authorities' services for people who are mentally ill.

### *Cost Implications*

Figures are available for both analysed costs and the intake of patients for 19 hospitals where ratios of admissions in 1960 range from 47 per cent to 192 per cent of available staffed beds. Costs per patient week are summarised in *Table C*. Do the cost

\* A possible alternative interpretation of the trends in mental illness hospital population, particularly the rise in admissions, is an absolute rise in mental illness. However, the timing, the consistency, the speed and the extent of the rise cannot be related to any factors bearing on the incidence of mental illness.

**Table C****Costs per patient week in 19 mental illness hospitals. England and Wales 1960-61.**

*Source:* Ministry of Health Hospital Costing Returns 1960-61. Section B and C. Registrar General. Supplement on Mental Health 1960. Table A (i).

*Note:* Mental illness hospitals only, excluding subnormality.

Number of Hospitals	4	5	7	3
Average staffed beds	1,120	1,070	1,200	1,200
Average ratio of admissions	130	92	75	58
<b>Shillings per patient week (Range)</b>				
Therapy	19 (13 - 27)	14 (10 - 16)	14 (10 - 17)	15 (11 - 18)
(a) Medical salaries	9.8 (6.6-15.2)	6.8 (5.6-9.0)	5.8 (5.6-9.9)	7.2 (5.0-9.3)
(b) Pharmaceutical supplies	5.2 (4.3-6.7)	4.3 (3.2-5.3)	4.0 (2.8-4.7)	3.9 (3.8-4.1)
Nursing	52 (44 - 65)	48 (39 - 55)	48 (33 - 70)	48 (45 - 52)
Domestic	113 (95 -142)	100 (93 -145)	101 (64 -114)	104 (86 -119)
(a) Catering	36 (26 - 44)	32 (29 - 35)	33 (26 - 37)	34 (29 - 36)
<b>Total (Range)</b>	184 (158-263)	162 (150-181)	163 (125-194)	167 (143-189)
<b>Average Cost per Out-patient attendance (shillings)</b>	17	53	58	47

differences between these hospitals throw any light on the cost implications of the trend on in-patient care in mental hospitals?

The figures are not conclusive. The ranges around the average are wide. The four hospitals with the highest intake of patients in relation to the number of beds have higher average costs per patient week. This trend is more marked if specific items are examined. The average cost of medical salaries and of pharmaceutical supplies per patient week diminishes as the ratio of admissions to the number of available staffed beds falls.

The hospitals with high intake and discharge tend also to have a greater number of out-patient attendances. With the more intensive use of facilities costs per attendance for these hospitals tend, however, to be lower than for the hospitals where the number of out-patients is small.

The impression that a high turnover of patients involves high costs is reinforced by a comparison of trends in average costs per in-patient week between mental illness and mental subnormality hospitals. The turnover has risen rapidly in the former, but remained largely constant in the latter. Both types of hospital are generally subject to similar inflationary trends. Average costs per in-patient week rose substantially between 1950 and 1963: the rise, however, was more rapid for mental illness hospitals. Costs per in-patient week in these hospitals rose 183 per cent compared to a 163 per cent rise in costs for mental subnormality hospitals. The difference is more substantial for the items grouped as 'therapy' costs. Costs in mental illness rose 4.3 times as against a rise of 3.8 times in mental subnormality hospitals.

### *Care Outside Hospitals*

The trends in in-patient care will be reflected in corresponding changes in the care of the mentally disordered by the health services outside hospitals. There are, however, no figures compiled on a standard basis covering this period which saw such a marked change in in-patient turnover. A number of studies of mental illness in general practice has been undertaken since the war.<sup>10</sup> The results vary widely depending principally on definition and classification of mental illness and the subjective valuation of the physician. They range from 5 per cent to 70 per cent of the population at risk suffering psychiatric or psychosomatic disorders. The majority of studies find between

six and twelve per cent of patients with psychiatric disorders. These figures, however, include a substantial number of minor and transient episodes of illness.

One study of 261 general practices with just over one million patients in Great Britain from November 1961 to October 1962 excluded minor episodes of illness and confined attention to persons who were disabled mentally.<sup>11</sup> These persons numbered only about one-tenth of the total indicated by those surveys which included all forms and episodes of mental illness. In November 1961 the survey found a prevalence of 7.4 mentally disabled patients per thousand at risk in England and Wales. In the subsequent twelve months 1.6 new cases per thousand at risk occurred. These rates, applied to the whole population would give approximately 350,000 mentally disabled patients being treated by their general practitioners at any one time, with an annual total of about 70,000 new cases of mental disability.

In the course of the year, using the rates from the survey, 215,000 cases were referred to the specialist psychiatric services leaving 205,000 cases cared for during the year by the general practitioner alone. About 78,000 of these cases were classified as either 'helpless at home' or 'off work continuously for a year or more'. The remainder, 128,000, were less of a continuous social liability: about 83,000 of them were continuously on psychotropic medicines and could keep at work or perform normal day to day activities: about 18,000 although clearly mentally ill were able to live in the community and to work and look after themselves without the aid of doctors, medicines or other outside help. The remaining 27,000 had caused serious but short-term social upsets.

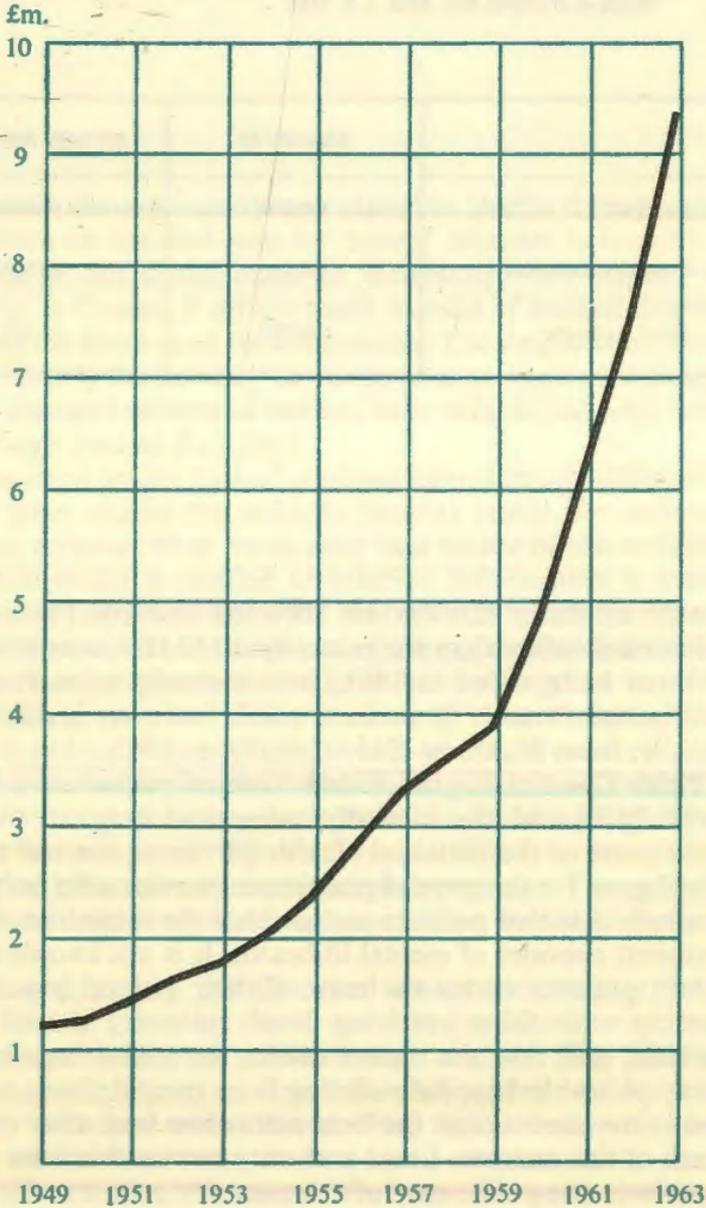
Local health authorities have only recently begun to play a significant part in the domiciliary care of the mentally disordered. Their increasing scope may be measured by the pace at which expenditure has risen (*Fig. 6*). Over the 10 years from 1949, expenditure rose 2.8 times. Following the passing of the 1959 Mental Health Act, the same expansion occurred in half this time.

Figures for the number of persons receiving mental health services provided by local authorities are available from 1961. At the end of that year 122,000 were being aided: in 1962, the figure rose by nearly 13,000 to 135,000 reaching 141,000 by the end of 1963. For historical reasons the greater part of the local

**Fig. 6**

**Expenditure by local health authorities on mental health  
England and Wales 1949/50—1963/64.**

*Source: Ministry of Health Annual Reports, Pt. 1. Various Years. H.M.S.O.*



**Table D**

Estimated number of patients under the care of various health services, 1961 year end. England and Wales.

Sources: Ministry of Health Annual Report 1962  
Watts *et al* (1964) *Brit. Med. J.* 2. 1351.

	<i>Mentally Ill</i>	<i>Mentally Subnormal</i>
Hospitals	140,000	60,000
General Practitioner	310,000	40,000
Local Authority	40,000	80,000

health authority services are directed towards the mentally subnormal rather than the mentally ill: 82,000, over two-thirds of those being aided in 1961, were mentally subnormal. The number of mentally ill patients aided, however, is rising more rapidly, from 40,000 in 1961 to 56,000 in 1963.

*Table D* estimates the distribution of patient care for the mentally ill and the mentally subnormal between the three main parts of the National Health Service at the end of 1961. The figures for the general practitioner service refer only to the mentally disabled patients and exclude the large hinterland of transient episodes of mental ill-health. It is not known to what extent patients under the care of their general practitioners overlap with those receiving local authority mental health services, and thus the figures cannot be added together. For every patient in hospital suffering from mental illness there are two in the community: the local authorities look after only one-tenth of this number. Local authority services bear the greatest burden in the public care of the mentally subnormal.

## Benefits to the Community

THE benefit the community may expect to receive from greater expenditure on medical care for mental disorder is broadly a reduction in the social costs of incapacity. The impact of incapacity is diverse. It affects many aspects of normal day-to-day life in the family and the community. The simplest and most precise effect is the inability to work, to earn one's own living. Has the changed pattern of medical care reduced the total days lost through mental disorder?

Information on the loss of working days through sickness is derived from claims for sickness benefits under the national insurance scheme. They cover only that sector of the working population which is entitled to benefits. Information is available for the years between 1953 and 1961,<sup>12</sup> but these figures must be interpreted in the context of the regulations governing benefits. Since 1948, claimants have been entitled to benefits without limit on time. Thus with long-term diseases, like mental disorders, if an employed or self-employed person builds up an entitlement to benefits before falling ill, he may remain a claimant throughout the remainder of his working life. Thus since 1948, incapacity figures have included a cumulative number of permanently incapacitated persons. The general trend in the statistics of chronic disabilities would, therefore, be upwards.

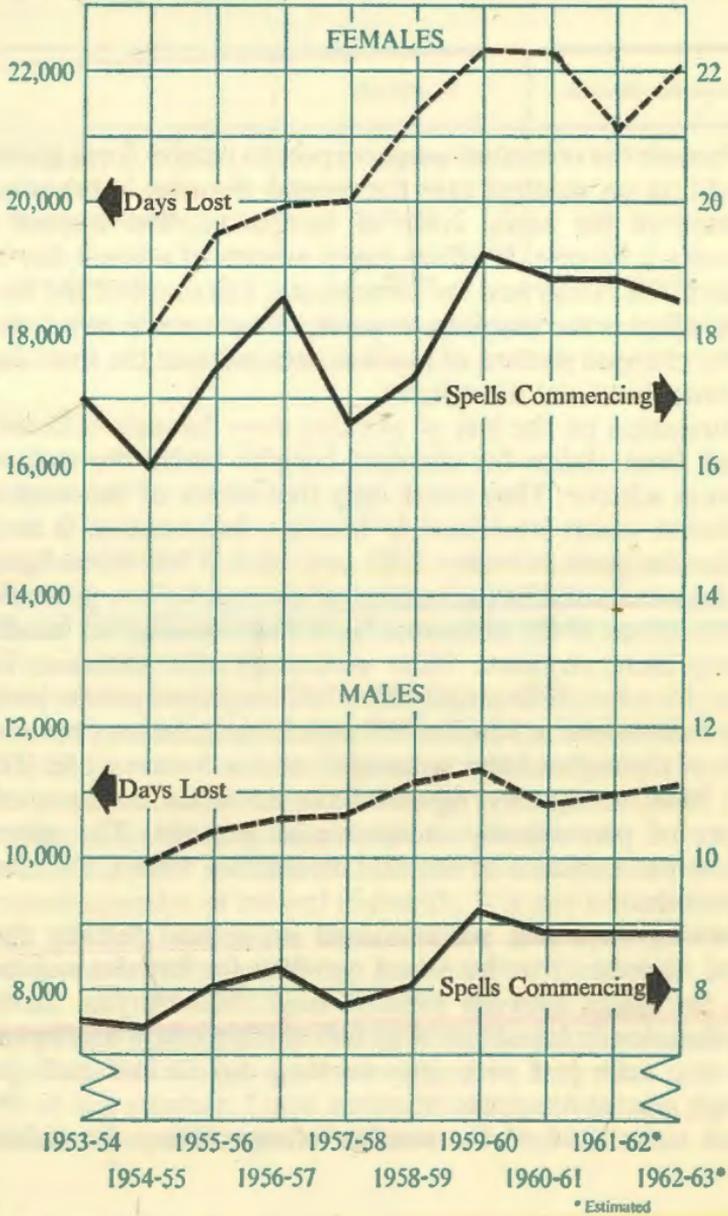
Working days lost per thousand males and females from mental disorders rose by about one-fifth for females and one-tenth for males between 1954-55 and 1962-63 (*Fig. 7*). For every female employed just over two working days are lost and for every male just over one working day is lost each year through mental disorders.

Also since 1954-55 the number of new claims for sickness

**Fig. 7**

**Mental Disorders. Days lost and new claims per thousand employed males and females. Standardised rates. Great Britain 1953/54—1962/63.**

Source: Ministry of Pensions Annual Report 1963. Cmd. 2392. H.M.S.O. 1964. (Estimates for 1961/62 and 1962/63 added.)



benefit through mental disorders rose. The rise, however, is in claims and not necessarily in claimants.

It is not possible to state with certainty the causes of these increases. The period from the mid-1950's saw an increasing number of long-stay patients released from mental hospitals. If the increase in working days lost through mental disorder is due to an increasing proportion of chronic cases among mentally disordered patients in the numbers unemployed through sickness, it would suggest that few of these have in fact, returned to work. Alternatively, with the rise in new claims for sickness benefits and the rapid rise in the numbers admitted for short spells to mental hospitals throughout the 1950's, the increase in working days lost may be due to a simple rise in the number but not the average duration of periods off work through mental disorder. There are insufficient figures to judge which of these causes lies behind the increase in mental disorder sickness absence. It is probable that both factors played a part.

Whatever the cause of the rise in sickness absence through mental disorder, it is clear that up till now, the community has not derived any benefits in reduction of sickness absence through the changed pattern of medical care. In 1962-63, a total of nearly 28m. working days were lost through mental disorders, and a further 4m. working days lost from the related causes of sickness absence such as depression and nervousness. If these claimants received the average sickness benefits for each working day lost, mental disorders cost the national insurance funds approximately £17m.: about £3m. more than it would have been if the rates of sickness absence had not risen since 1954-55.

From the point of view of the patient the change in the pattern of mental care has had two consequences: first, it has reduced the chance of long-stay in hospital; second, it has increased the availability of short-term specialist and hospital care, thus offering a greater chance and opportunity for early treatment. The effect on the daily life of the mentally disordered of these changes are many, but little is in fact known about them. The effects may be many sided. Far more research is needed into the impact on the mentally disordered of the changing pattern of medical care, before it is possible to draw any firm conclusions about the implications of these changes.

The release into the community of the mentally sick people who may have spent a large part of their adult life in mental

institutions may be a mixed blessing. Much rests on the extent to which they are dependent on others, particularly on the family circle into which they are released and the extent to which community services ease the burden of care. The totally dependent patient will mean a new economic burden for his kin. For those irretrievably mentally disabled, care in a mental hospital meant at least that the costs of domestic items were borne by the community as a whole: the greater part of mental hospital expenditure is on domestic services. The release of these patients into the community might, therefore, mean no more than a shift of the economic burden of incapacity from the Health Service to the patients, their families and the National Assistance Board.

The pattern of mental care must be judged, however, against its broad objectives. Changing the character of mental hospitals from long- to short-stay institutions has broken down the barriers which existed between the community and the mentally ill while releasing hospital and specialist services, otherwise employed on long-term care, for the use of a larger number who may need short-term aid.

### *The Future*

Ending the segregation of the mentally disordered can reduce the frustration, isolation and social stigma of mental illness. This is valuable both therapeutically and socially. The social stigma and isolation traditionally attached to mental illness is itself an aggravation of the disease and the social losses suffered by the mentally disordered. The success of this policy depends on the extent to which society is willing to tolerate a large degree of eccentricity and deviations from what is regarded as 'normal behaviour'.

In the long-term the expansion in the scope of care for mental illnesses is potentially of greater significance. A larger number can now obtain specialist care at an early stage. This represents a secondary form of preventive medicine, early diagnosis and treatment which may mean that far fewer patients eventually lapse into a state of total mental disability. Extrapolating from the figures in the study of those cared for in general practice,<sup>11</sup> an estimated 10,000 persons with schizophrenic disorders were kept at work for at least most of the time, and a further 60,000 with depressive-anxiety states

were kept at work and maintained a reasonable state of health through long-term care with psychotropic medicines. However, still much more needs to be known about the long-term effects of these advances in therapy and changes in mental health policy concerning the manner in which it affects the prognosis of mental illness.

It is in this that the greatest social benefits to the community may lie. The past fifteen years have seen substantial therapeutic advances and important steps towards breaking down the segregation between the mentally disordered and the community. Mental illness is being placed on an equal footing with other kinds of disability. In the future the prospect or the need for permanent institutional care may be substantially reduced.

## References

---

1. Fein, R. *Economics of Mental Illness*. New York, 1958.
2. Jones, K. *Lunacy Law and Conscience 1744-1845*. Routledge and Kegan Paul, 1960.
3. Jones, K. *Mental Health and Social Policy 1845-1959*. Routledge and Kegan Paul, 1960.
4. Registrar General. *Supplement on Mental Health 1960*. H.M.S.O., 1964.
5. Registrar General. *Hospital In-patient Enquiry I 1961*. H.M.S.O., 1964.
6. U.S. Dept. of Health, Education and Welfare. *Mental Health Statistics*. Current series.
7. Registrar General. *Supplements on Mental Health 1951*. M. 23. 1960. M.8.
8. Brooke, E. M. (1963) *Stud. Med. Pop. Subj.* No. 18 H.M.S.O.
9. Registrar General. *Supplement on Mental Health 1960 A (1)* H.M.S.O., 1964.
10. Kessel, N. and Shepherd, M. (1962) *J. Ment. Sci.* 108, 159.
11. Watts, C. A. H. *et al* (1964) *Brit. Med. J.* 2. 1351.
12. Ministry of Pensions *Annual Report 1963* Cmnd 2392. H.M.S.O. 1964.

### The Cost of Mental Care

THE estimate of expenditure on mental disorders was built up from statistical data not originally collected for costing purposes. The method has, therefore, been determined by the data available rather than by the selection of ideal units for costing. The method is similar to that used in the earlier O.H.E. analysis by diagnosis of total N.H.S. expenditure (Office of Health Economics, 10 *The Costs of Medical Care* 1964).

The diagnostic groups included in mental disorders are I.C.D. No. 300 to 326 *Mental, psychoneurotic and personality disorders* together with I.C.D. Nos. 790.0 *Nervousness* and 790.2 *Depression*.

Expenditure in the N.H.S. hospital service in England and Wales was calculated from the average daily bed occupancy for mental illness, psychiatric children, chronic sick under psychiatric supervision and mental subnormality departments—(Min. of Health Report 1963, Cmnd 2389, Table 57 pt. II) multiplied by average costs per patient year in mental illness and mental subnormality hospitals (Min. of Health Hospital Costing Returns 1963–64 Part I, Appendix 4). Allowance was made for mentally ill patients in general hospitals from the estimated numbers of discharges for these diagnoses from hospitals included in the I.P. survey (Min. of Health Report on Hospital In-patient Enquiry 1961, Part I, Table 1). Estimated average daily bed occupancy was then multiplied by average costs for mainly acute hospitals (Min. of Health Hospital Costing Returns 1963–64, Appendix 4\*).

The cost of out-patient attendances for mental disorders was calculated from the total number of attendances at mental illness or subnormality departments (Min. of Health Annual Report 1963, Cmnd 2389, Table 57 pt. 3) multiplied by the weighted average cost per out-patient attendance at mental illness and mental subnormality hospitals (Min. of Health Hospital Costing Returns 1963–64, Part I, Section C).

Costs of mental disorders falling on the general medical and the pharmaceutical services were calculated from the British Medical Index and the British Pharmaceutical Index. The publications form part of a market research service provided by Intercontinental Medical Statistics (185, Great Portland Street, London W.1).

The costs to the General Medical Service of mental disorders was calculated proportionately according to the percentage of mental disorder diagnoses made in the year. Costs to the pharmaceutical service were

\* The total in-patient expenditure for 1961 calculated in this fashion came to £94.8m. which compares with an estimate of £92.9m. for similar items in the earlier O.H.E. cost analysis (O.H.E. 10 *ibid* Table A). The difference arises from the fact that in the earlier study sufficient data was available to weight in-patient average costs by different durations of stay in different types of hospitals. This data was not available for the later years covered by the present estimate of expenditure of the costs of mental disorders.

It should be noted that the earlier study did not allocate either out-patient or the greatest part of local health authority expenditure to diagnostic groups. All these items are included in the present estimate of the costs of mental disorders.

calculated according to the proportion of each therapeutic class of medicines given for mental disorder diagnoses. Costs for dispensing fees were added and total expenditure on medicines was proportionately adjusted to relate to England and Wales.

Expenditure by local health authorities represents current net expenditure on mental health (Min. of Health Reports 1963, Cmnd 2389, Table 51).

The costs of mental disorders to the National Health Service in England and Wales, calculated by this method, are given in *Table A*. Capital expenditure and expenditure on mental care outside the National Health Service is excluded.

#### *Acknowledgement*

The Office of Health Economics wishes to thank Intercontinental Medical Statistics Ltd. for making available some of the statistical data on which the calculation of costs of mental disorders was based.

## **Office of Health Economics**

THE Office of Health Economics was founded in 1962 by the Association of the British Pharmaceutical Industry with the following terms of reference:

1. To undertake research to evaluate the economic aspects of medical care.
2. To investigate, from time to time, other health and social problems.
3. To collect data on experience in other countries.
4. To publish results, data and conclusions relevant to the above.

The Office of Health Economics welcomes financial support and discussions of research problems with any persons or bodies interested in its work.

