THE PROBLEM OF THE AGEING POPULATION

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'Medicine . . . a very powerful instrument of social welfare. Doctors are members of a social service in which they are learning to co-operate more and more fully with others—clergy, teachers, health visitors and social workers of all kinds.'

Brackenbury (1935).

SIR HENRY BRACKENBURY was a man of vision. Born in 1866, the son of a clergyman, he obtained an Oxford Scholarship from Kingswood School, Bath, but went straight to the Westminster Hospital where he qualified in 1887. He entered general practice at Hornsey and remained there throughout his professional life, taking a keen interest in local affairs, especially health and education. In 1905 he became Mayor of Hornsey and began a long association with Health Insurance at its introduction in 1911. Prominent in the affairs of the British Medical Association, he was Chairman of the Council from 1927 to 1934, receiving a knighthood during the centenary year of the association.

A general practitioner at heart, Sir Henry Brackenbury had a keen appreciation of the social implications of his calling. The quotation which heads this paper reflects this sensitivity and more than 20 years later doctors are still learning, slowly, the co-operation of which he speaks. His book, 'Patient and Doctor', describes a co-ordinated health service found in part in our national health service today. Commenting on conditions a quarter of a century ago, he says:

'There has grown up a tendency in the sphere of public health to draw far too rigid a line of demarcation between the work of those who are devoting themselves to specific service within that sphere and the work of the general body of doctors outside. It is of importance that this condition of isolation or separation should be broken down. It is not good for the doctors, but it is the patient who suffers, whether that patient be the community as a whole or an individual member thereof'.

This paper will follow these ideas in considering the problem of the ageing population. The need of the elderly for social service is self-evident; what is less apparent is the true place of the doctor in caring for the old. On the one hand he must not dissipate his medical skill in tasks best performed by the nurse or welfare worker and on the

other he must see that the needs of his patient are met; he must be able to direct those services which the patient's clinical condition requires and remain responsive to the domestic background. How far he is able to do this depends partly upon the services available and partly on his access to them. If they are in the 'condition of isolation or separation' of which Brackenbury speaks, even abundant services will not be properly used. It may be that the needs of the ageing population are not being met, not because the services required are unavailable but because they are inadequately co-ordinated. If avoidable suffering clouds the evening of many lives this forms a stark contrast to the young patient with disseminated sclerosis or cancer who would readily secure effective treatment if such existed.

The present size and probable future trends of the problem of the ageing population are considered first. There are reasons for thinking that the problem, large as it is, will yet remain manageable. Secondly the needs of the elderly are discussed and, though this discussion will centre round their need for services, medical, nursing and domestic, material and spiritual needs cannot be forgotten.

This consideration of the size and requirements of the problem of the ageing population leads to proposals for meeting the problem partly by social policy and partly by medical organization. It is not a problem which can be solved by isolated action in one sphere.

The Size of the Problem

Present Facts

It is comparatively easy to set out figures to show the age structure of the population in terms of the absolute and relative numbers of the elderly (Table 1). It is less easy to grasp such figures without some explanation and illustration.

The population of England and Wales is about 45 million, 5 million of whom are over 65 years of age. There are 10 million children under 15 years of age, while the remaining 30 million provide the great

TABLE 1

CIVILIAN POPULATION OF ENGLAND AND WALES
(Registrar-General's Estimates for Mid-Year, 1957)

Age	Number (Thousands)	% Over 65	% of All Ages	Number per 3,000 of All Ages
0-15 ..	10,891		24.4	732
65- ..	1,904	36.2	4.3	129
70- ..	1,501	28.5	3.4	102
75- ..	1,037	19.7	2.3	69
80- ..	554	10.5	1.2	36
85+ ..	270	5.1	0.6	18
65+ ..	5,266	100.0	11.8	354

majority of the working population. A general practitioner with 3,000 patients would have about 350 patients over 65, about 120 of these being over 75, and about 20 85 years and over. By contrast he would care for about 700 children. The old and young together make up about a third of his practice but occupy considerably more of his time (Fry, 1957). These figures serve to illustrate the relative size of the problem but they will, of course, vary with local conditions. Thus a town such as Eastbourne has a much larger proportion of elderly people because it has little industry and is favoured for retirement, whilst in a new town such as Crawley or Harlow the opposite situation exists.

Although the majority of the working population is drawn from the active ages of 15 to 65 it is not possible to calculate the working population exactly. Employment figures indicate that 4% of the working population is made up of those over pension age.

In 1951 20% of men over 70 and 5% of women over 70 were employed. On the other hand, many children over 15 are still at school and some of the active population may be dependent through illness, or like housewives, may work without appearing in employment figures. It has been estimated that at present for every 100 workers there are about 113 dependants: 25 old people, 48 children and 40 adults (Shenfield, 1957).

Population Growth. It is convenient now, and helpful in considering probable future trends, to see how the population has grown and why its age structure has altered. The total population of the world more than doubled between 1750 and 1900. Table 2 shows that the population of Asia became only twice that of Europe, despite the large migration to the New World from Europe.

The growth of the population of Great Britain since 1851 is shown in Table 3. It is not a steady growth and the rate of growth has been declining since the turn of the century. Such changes are produced by alteration in migration, mortality, marriage rate and family size. The net loss or gain by migration for this country has been under 100,000 per annum and for practical purposes this may be dismissed because gains and losses cancel out over the years. The marriage rate has remained fairly constant, the apparent increase being due to lowering of the average age at marriage. The most potent factors affecting population growth are mortality and family size and these in turn affect the age structure of the population.

Mortality. The great reduction in mortality rates (Table 4) has had a twofold effect: a direct effect by allowing the majority of those born to survive into middle and old age and an indirect effect by reducing

TABLE 2

POPULATION OF THE WORLD BY CONTINENTS,
1750 AND 1900 (Carr Saunders, 1936)

	1750	1900	Per-centage Increase
	Millions		
Europe	140	401	186
North America ..	1.3	81	6,140
Central and South America ..	11.1	63	473
Australasia ..	2	6	200
Africa	95	120	27
Asia	479	937	96
	728	1,608	121

TABLE 3

POPULATION OF GREAT BRITAIN
(Phillips Committee, 1954)

Year	0-14	15-64	65 and Over	All Ages
	Millions (Percentages)			
1851 ..	7.4 (35)	12.4 (60)	1.0 (5)	20.8
1861 ..	8.2 (36)	13.8 (59)	1.1 (5)	23.1
1871 ..	9.4 (36)	15.4 (59)	1.3 (5)	26.1
1881 ..	10.8 (36)	17.5 (59)	1.4 (5)	29.7
1891 ..	11.6 (35)	19.8 (60)	1.6 (5)	33.0
1901 ..	12.1 (32)	23.2 (63)	1.7 (5)	37.0
1911 ..	12.6 (31)	26.1 (64)	2.1 (5)	40.8
1921 ..	12.0 (28)	28.2 (66)	2.6 (6)	42.8
1931 ..	10.8 (24)	30.7 (69)	3.3 (7)	44.8
1951 ..	11.0 (22)	32.5 (67)	5.3 (11)	48.8

TABLE 4

AVERAGE ANNUAL DEATH RATE PER 1,000 OF POPULATION
IN GREAT BRITAIN IN AGE-GROUPS
(Phillips Committee, 1954)

Age Group	1900-02	1930-32	1950-52	Percentage Decline from 1900-02 to 1950-52
		Men		
0-14 ..	22	8.4	3.2	85
15-44 ..	6.7	3.9	2.0	70
45-64 ..	25	17	15	40
65 and over	95	81	83	13
		Women		
0-14 ..	19	6.8	2.5	87
15-44 ..	5.7	3.4	1.5	74
45-64 ..	20	12	8.7	56
65 and over	85	69	83	26

the number of children required to maintain and increase the population. The proportion of the elderly is thus increased because there is no large group of children, never to reach adult life, who reduce the proportion of old people in the population. Table 5 compares the survivors of 1,000 females born and exposed to the mortality of 1838-54 with a similar group exposed to the mortality of 1942-44. The cumulative effect of such reductions in mortality produces the situation depicted in Fig. 1 which shows the reduced

FIG. 1.—Percentage age distribution of population of Great Britain at various dates.

proportion of children and the increased active and elderly population.

Family Size. Concurrently with reduced mortality there has been a decrease in family size from an average of five to six in the mid-nineteenth century to three to four at the turn of the century and less at the present day. The sizes of completed nineteenth- and twentieth-century families (Table 6) demonstrates this most strikingly. In the nineteenth century over 80% of marriages produced three or more children with five, six or seven as the commonest size of family. Amongst twentieth-century marriages the same proportion produced three or less children, one or two being the commonest size of family and comprising 50% of all families. This reduction in fertility had the effect of keeping the population growth within bounds and counterbalanced the fall in mortality. There are relatively larger numbers in the late fifties at present because at the turn of the century fertility reduced relatively less rapidly than mortality and larger numbers were born to survive at reduced mortality. Reduction in mortality and fertility both produce a population with a preponderance of the older age-groups.

The enormous reduction in fertility has not prevented population growth because the reduced mortality allows larger numbers to survive to and through reproductive life. The total number of births is much larger than the low fertility might suggest because they come from a larger number of married couples. The total number of births has also been maintained by a reduction in the age of marriage. This process cannot continue indefinitely. It constitutes a borrowing of marriages from the future: its effect is essentially transient and could not be spread over a long enough period to produce an important change in the age distribution of the population.

The resulting situation, embodying the cumulative effects of the changes discussed here, is demonstrated graphically in Fig. 1. It is at once apparent that the potential working population, despite the greater proportion of the elderly, is greater than at any time in the past 100 years. Professor Fraser Brockington (1959) gave a lucid explanation of the facts by comparing the current conditions in under-developed countries, which correspond to this country more than 100 years ago, with our present-day conditions. In under-developed countries today over 30% of deaths occur under the age of 5 and thereafter they occur at a steady rate

FIG. 2.—Percentage of deaths in age-groups in 1838 and 1948.

TABLE 5
SURVIVORS AT CERTAIN AGES OF 1,000 FEMALE BIRTHS EXPOSED TO NINETEENTH- AND TWENTIETH-CENTURY MORTALITIES (Royal Commission, 1949)

Age	1838-54	1942-44
1	865	956
5	750	945
15	696	935
25	643	917
35	579	895
45	509	867
55	432	814
65	323	797
75	174	486
85	44	174

TABLE 6
CHANGES IN DISTRIBUTION OF FAMILIES BY SIZE (Royal Commission, 1949, page 26)

Number Born	Marriage About 1860	Marriage in 1925
	%	%
0	9	17
1	5	25
2	6	25
3	8	14
4	9	8
5	10	5
6	10	3
7	10	2
8	9	1
9	8	0.6
10	6	0.4
Over 10 ..	10	0.3

through the age-groups. In developed countries less than 5% of deaths occur under the age of 5, a minimum of deaths occur between 5 and 45, and deaths then increase to a maximum in men at 65-74 and in women 75-84. Fig. 2 compares deaths in the age-groups 0-5, 5-65 and over 65.

Probable Trends

We now leave established fact and enter upon speculation. Changes in mortality and family size, which cannot be accurately forecast, must determine future trends. On the other hand as both these figures are reduced, so is the margin for changes and the magnitude of the effect of changes. Mortality between 5 and 50 years of age is already so low that there is little room for improvement. Reduced mortality has not yet had its full effect on the age structure of the population because the members of older age-groups were born during a time of much higher mortality: these groups would be larger if they had experienced present mortality rates throughout life. To this extent the ageing of the population is inevitable even with constant birth and mortality rates. This influence alone would account for an increase in the proportion of those of pensionable age from 13.9% in 1954 to 16.3% (Phillips Committee, 1954, page 15). The effect is magnified by the large number of survivors of the age-group born at the turn of the century who will reach pensionable age from 1960 onwards. The present rate of increase in those reaching pensionable age is abnormally slow because of the losses sustained in the first world war by the generation now reaching pensionable age.

Each year in future a greatly increased number of people will reach pensionable age and for a decade the rate of increase will be progressive from year to year. This pressure of increase will present its own problems in providing for the needs of the elderly. The big unknown factor is the likelihood of improvement in mortality at older ages. The expectation of life at 60 has improved by less than a year in the past century and the nature of physiological ageing is such that it would seem reasonable to anticipate no dramatic change. An increase of a further year over the next half century would seem to be a reasonable estimate and it might well be less. It might be argued that the generation which has benefited from improved infant and child welfare may live longer in old age but the predominance of cancer and degenerative diseases as causes of death in older age-groups argues against this. Nor should too much be expected of cancer research which seems likely to advance by improved techniques of treatment rather than by the methods of prevention which have brought about such vast reductions in mortality of infants and younger adults. It is conceivable that a method of treatment will appear which will produce a result analogous to that of antibiotics in infections and greatly increase the numbers of the elderly. On the whole it would seem reasonable to expect a fuller and more

healthy life in old age but no great increase in its total span.

The reduction in family size over the past century has been steady and progressive and seems unlikely to alter. There is now a much larger number of married couples, however, and a relatively small change in average family size, say from 2.2 to 2.4, could produce a very much larger generation. Conversely a small reduction would produce a much smaller generation. While this would alter the proportion of the elderly it would have no effect upon the total numbers reaching pensionable age for many years. The first effect would be felt in the numbers entering the working population. An important consequence of the great reduction in family size is that the number of close relatives who may be available to help the elderly is much reduced.

It would be possible to spend considerable time examining the methods which have been used to forecast the future age structure of the population. The general factors concerned have been considered and it is convenient merely to set out estimates for comparison (Tables 7, 8 and 9). These estimates are based on certain assumptions of prevailing mortality and fertility which can only be intelligent guesses.

The importance of marriage and the continuance of the married state in reducing the need for hospital care has been demonstrated by Abel-Smith and Titmuss (1956). They say: 'Marriage and its survival into old age appear to be a powerful safeguard against admission to hospitals in general and to mental and chronic hospitals in particular'.

TABLE 7
TOTAL POPULATION PROJECTION FOR ENGLAND
AND WALES (Registrar-General, 1957)
(Thousands)

Year	Total	Over 65	% Over 65
1957 ..	44,043	5,266	11.9
1962 ..	45,941	5,575	12.1
1967 ..	46,745	6,050	12.9
1977 ..	48,284	7,208	14.9

TABLE 8
ESTIMATED POPULATION OF GREAT BRITAIN AT
CERTAIN DATES (Phillips Committee, 1954)
(Millions and percentages)

Age-Group	March 31, 1954	March 31, 1964	March 31, 1979
0-14 ..	11.6 (22)	10.73 (21)	10.51 (20)
15-44 ..	20.76 (42)	20.97 (41)	20.98 (40)
45-64 ..	12.18 (25)	12.97 (26)	12.70 (25)
65 and over ..	5.53 (11)	6.19 (12)	8.04 (15)
Total, all ages	49.63 (100)	50.86 (100)	52.23 (100)

TABLE 9

PROJECTED POPULATION OF GREAT BRITAIN, 1979, ON ALTERNATIVE ASSUMPTIONS (Phillips Committee, 1954) (Millions)

Age-Group	Pessimistic	Basic	Optimistic
0-14 ..	10.39	10.51	10.60
15-44 ..	20.83	20.98	21.06
45-64 ..	12.38	12.70	12.93
65 and over	7.41	8.04	8.64
Total, all ages	51.01	52.23	53.23

TABLE 10

POPULATION OF ENGLAND AND WALES BY SEX, AGE AND MARITAL CONDITION, MID-YEAR 1957 (Registrar-General, 1957) (Thousands)

Age	Sex	Total	Single	Married	Widowed and Divorced
65-	Male	797	61	635	101
	Female	1,107	168	529	410
70-	Male	599	49	431	119
	Female	902	137	329	436
75+	Male	674	59	351	264
	Female	1,187	194	235	758
65+	Total	5,266	668	2,510	2,088

Two frail old people may survive together by mutual dependence but be quite unable to remain independent if deprived of their partner. Table 10 shows the present situation. It is apparent that about half those over 65 have the support of a spouse but that four-fifths of women over 75 must live without the moral and physical support of their husband. This situation is likely to improve for the reduction in mortality means that fewer marriages are broken by death. Even with the increased divorce rate far fewer marriages are now broken by divorce or death than 50 years ago.

Conclusions

Four main conclusions can be drawn from a study of the size of the problem of the ageing population:

1. It is inevitable that there will be a substantial increase in the absolute number of old people in the country and the rate of increase is likely to be very rapid in the next ten years.

2. Smaller families mean less relatives who are able to care for the old people. It is not a question of a declining sense of family responsibility. The relatives often do not exist, or they live too far away to help.

3. Marriages are much less likely to be broken by death. This will help the majority of old people to live an independent life of mutual support. The need for immediate and adequate support for

the sole survivor is more imperative when death comes.

4. The proportion of active members of the population is much greater now than a hundred years ago, despite the numbers of the aged. Formerly the dependants were mostly children, clearly the responsibility of their parents. Now that the elderly have few relatives who can care for them it is the responsibility of society to make appropriate provision of supporting services. In view of the greater working population this is a matter for decision and organization and there should be no formidable economic handicap.

5. The proportion of the elderly will rise progressively and action is required now to provide for their care.

The Needs of the Elderly

For most of us life begins at home, is centred round home during childhood and then, for the great majority, the parental home is quickly, almost imperceptibly, replaced by the matrimonial home. The family circle becomes established round the new home and as parents become grandparents the ascendancy of the young family gradually becomes confirmed. The old people resume a life of independence and mutual support. It is clear that the three-tier family exists in many places today (Townsend, 1957). Parents and grandparents help one another but for many families this is impossible, chiefly because of physical separation. Even in the bravest of new worlds, certainly for the lifetime of anyone alive today, life will centre on the home. Accordingly the domiciliary needs of the elderly will be considered before the more dramatic, and more expensive, institutional needs.

Domiciliary Care

The physical needs of the elderly at home can be divided into material needs, such as housing, clothing, fuel and food; and the need for services, medical, nursing and domestic. Thoughtful and adequate expenditure on material needs, especially housing, may greatly reduce the need for services.

Material Needs. Shelter, warmth, food and clothing have been the basic needs of Man since earliest times. The second world war interrupted a housing programme which was already deficient. Many homes were destroyed in the war and since then much has been done. There is still an enormous amount to be done as study of officially declared slums shows (Barr, 1958).

Housing is of prime importance to the elderly. A small, easily run bungalow or flat, separate from but close to, younger relatives will allow considerable independence to a frail couple. Fuel costs

are less and more warmth allows less clothing to be worn. Food can be more easily prepared and all domestic tasks are lightened. Toilet facilities are at hand and there are no journeys down steps or across yards which precipitate accident and illness.

The first housing schemes after the war naturally concentrated on providing homes for young families. This usually involved a move by the parents of young children away from the home of the older generation. The physical isolation is accentuated by transport difficulties. Many suburban housing developments are connected only to the city centre by public transport and even for the active a journey to and from the old home is difficult. This means that the old people become progressively more isolated and can get little help from their younger relatives.

The difficulties created by failing to provide housing for the old in new estates have been recognized. Local authorities have included bungalows or special flats for the elderly in their housing developments. The handicaps of age, in particular locomotor and cardiovascular disabilities, are much less troublesome in such surroundings and the old can maintain their invaluable independence. When illness comes these homes allow of the patient being treated by the general practitioner with nursing and domestic help from the local authority. Such accommodation is suitable for old people with considerable physical handicap or chronic illness. If a short spell of hospital treatment is required the patient can return to an adequate home much more quickly. More serious handicaps require more specialized accommodation: a group of small houses with a warden; a small old people's home; or sometimes a larger type of welfare home with its own sick-bay which allows occasional admission for a limited period for inter-current illness or for a short terminal illness.

It remains true, however, that many old people are living in entirely unsuitable accommodation. In large houses with many unused rooms, in old cottages without adequate heating or sanitation, in flats or basements with many flights of stairs. Some of these old people would not wish to move but this is no answer to the many who would be glad to go to a small house designed for their needs. Many of these who now have become fixed in their unsuitable homes would have moved when their families left had they the opportunity. The problem is not being met at present: it will become overwhelming in the future if active steps are not taken now.

The scale of provision is a matter for housing authorities. It is not a matter which should be neglected simply because the old are a silent, long-suffering and relatively powerless minority. There can be little doubt that if suitable homes are provided the demand for institutional care will be curbed, though it is unlikely to decrease because of the ageing of the population. Even at present the local authority is not able to meet the demand for welfare accommodation. It would surely be wrong to divert money to building welfare institutions if this meant neglecting the provision of adequate homes. The situation exists in hospitals for the chronically ill that large numbers of people are

living there, just as they are living in mental hospitals, not because their condition demands it, but because they have nowhere else to go. The elderly should have the chance to live in quiet independence in the community. Without adequate housing this cannot happen.

Fifteen years after the war there is no agreed scale of housing provision for the elderly and there is grossly inadequate housing. The information on demand exists. The nation needs a new target for its housing programme which contains a specific and known share for the old.

Housing has been discussed in some detail because of its great importance. The other material needs can be met from an adequate income. An adequate pension will allow the purchase of sufficient fuel, food and clothing. Contributory pension schemes cannot provide the answer alone. It is not economically feasible to provide entirely for old age by savings during active life. Although this may often be possible for the individual such saving on a national scale would affect the national economy adversely. There must be a direct contribution by the active members of the community to the old people amongst them to supplement the goods and services to which the elderly lay claim on account of contributions paid. Here again there is a strong moral obligation upon the active members of the community which can only be met by political decision.

Pensioners are a minority dependent upon the goodwill of the community at large.

The Need for Services. Home is where the heart is and this is poignantly illustrated by the many old, ill people who cling to their pathetic, cold and dirty homes. The home is certainly not the place for surgical operations or for most of the acutely ill. It may not be the ideal place for childbirth and it is certainly unsuitable for abnormal mid-wifery. For all the common ailments, for many of the more serious illnesses, such as pneumonia or early cardiac failure, and for conditions which do not benefit by treatment in hospital, such as carcinomatosis or crippling rheumatoid arthritis, it is the right place. Moreover it is the place where the patient wants to be and where recovery or palliation can be best achieved. Not only is it better for such patients, it is cheaper than institutional care.

Given an adequate home the mainstays of the domiciliary care of the elderly are the home help and the district nurse. Much can be done by neighbours but they are not always available. They cannot usually spare time from their own affairs to undertake the regular domestic duties required by many old people. There is not yet a universal home help service, and where it exists it is often below strength, but it is an indispensable adjunct to the domiciliary care of the elderly.

There is also a place for men in the home help service to assist with heavy work and in the care of isolated old men.

The role of the district nurse is threefold. First, she must give specific treatments such as injections or enemas; secondly, she must give general nursing care, dressings or bathing; thirdly, and perhaps most important, she must be the friend and adviser of the patient and relatives and the watchful informant of the general practitioner. She is always available, apparently untiring, and the independence of her calling gives her a resourcefulness and acumen for which patients—and doctors—have cause to be grateful.

The devotion and hard work of the nurse and the home help require the unflinching support of the general practitioner. It is normally he who first arranges for them to attend and this does not absolve him from responsibility for his patient but rather increases the need for his directing influence. The care of the elderly requires peculiar patience and a certain sensitivity which does not come readily to all. It is also time-consuming: the more frequent demands of the elderly have already been noted (Fry, 1952, 1957). The history comes slowly, punctuated by irrelevant but inevitable detail, often incomprehensible and distorted by deafness or eccentricity. The initial examination may be undertaken in semi-darkness, the patient slumped in an old armchair and obscured by numerous layers of clothing. It may be possible to persuade the patient to bed, or to remain in bed next day, but there are then the complications of getting into the house, avoiding the ferocious dog, and getting the patient to tolerate examination by hands which to the old are always cold.

Despite these difficulties it is frequently possible for the practitioner to arrive at a reasonable diagnosis and to institute a regimen of considerable benefit to the patient. Should he be in doubt the domiciliary consultative service is available. It is often true, unless some specific diagnostic service, such as an electrocardiographic or blood examination, is required, that a domiciliary consultation is only of indirect value: the relatives are reassured or convinced, the patient is impressed, the practitioner receives moral support or the admission to hospital is expedited. The practitioner gradually acquires a working knowledge of the agencies which can assist in the care of his old people. There is often no central information about all the forms of help available in the area and there is considerable scope for the intensive study of socio-medical problems and the best ways of helping individual cases. A geriatrician may be able to help but if he has little knowledge of, and no control over, the supporting services, he may simply add the patient's name to a waiting list. This is useful in establishing priorities for admission but of little immediate benefit to the patient. Moreover if the supporting services are adequately deployed the need for admission may disappear. The medical officer of health may be of great help but if he is a remote figure whose knowledge is restricted to his own sphere, his power to help is

seriously handicapped. If all these doctors could meet as active colleagues in the hospital much more could be done for patients in the community.

Ancillary services such as physiotherapy and chiropody are virtually unobtainable at home. It is to be hoped that a home chiropody service will develop under the aegis of the local authority, for it would be of great benefit to the elderly. The place of home physiotherapy is more doubtful. A home rehabilitation service for the elderly has been described by Adams, McQuilty and Flint (1957); it must be closely linked to the other home services. There are so many conditions for which physiotherapy is an expensive but purely palliative measure: by using it in this way those who could really benefit from physiotherapy are denied treatment. There is scope for a limited amount of home physiotherapy, under adequate supervision, so that the patient who is treated at home, for example for a hemiplegia, has early physiotherapy. So soon as mobility is established the patient should attend a clinic: this has the double advantage of bringing the patient out to new surroundings and social contacts and allowing more active group physiotherapy and the use of appropriate appliances. Similar considerations apply to occupational therapy which may be undertaken at home if the patient cannot attend a day centre. Ideally the patients should have maintained their own interests but they may require help in diverting them to tasks suitable to a new handicap. Day centres are few and far between at present: they will certainly be required in increasing numbers. They provide a centre for treatment and social activity for the elderly. They also act as the counterpart of the day nursery and allow the relative who cares for the old person to go out or go to work.

The old people who live alone are the most difficult problem. They may have been isolated for a long time, gradually becoming frailer and less well nourished. A minor illness becomes a major incident. They are unable to buy or prepare food, to wash themselves, or to clean and tidy the house. After a few days even the better establishments present an unsavoury picture. Dust lies everywhere, the grate is filled with ashes or the unsuccessful attempt to kindle a fire, unwashed pans are piled on dirty clothing. Half a loaf of bread, a small packet of butter or margarine, a pot of cold tea and a milk bottle are on the table. The bed is unmade and the sink full of dirty crockery. If vomiting or incontinence have occurred an acrid stench fills the air.

This sort of situation is cheerfully and competently tackled by the home help. Usually more is required. Meals must be provided and in many towns they are served by voluntary helpers from central kitchens. There are, however, no meals at weekends or during public holidays. A regular laundry service that will deal with four

washing and bath attendants are available in some areas. In addition to 'meals on wheels' the voluntary organizations often give considerable help with visiting the sick, shopping, library services and comforts. These services are admirable and will become more and more essential in the future. Perhaps even more important than remedying a desperate situation when it arises is that some attempt at prevention should be made.

Ascertainment. Prevention cannot be undertaken without some system for the identification and registration of old people and the detection of early signs of deterioration. If it is possible for old people to be visited when they first draw their pensions a beginning can be made. The great majority would require no help, but a friendly call indicating how help could be obtained if required, would not be resented. Some might need immediate help or they could be visited at fixed intervals and help arranged so soon as it became necessary.

It is essential to link such a system to the general practitioner on the one hand and to the supportive services on the other. Even with tactful and benevolent supervision there will be some who will refuse help until the last moment and others who are victims of a sudden illness. When these people require urgent help it is at present seldom available, and never available at weekends or at night. If unnecessary admission to hospital is to be avoided it is essential that a flying-squad should be constantly available in the form of a domiciliary nursing team. It may be that such a team would be more adequately organized from the hospital than from the local authority offices. The team would fill the gap until the normal services were able to take over.

Occupation. Activity keeps the elderly young in heart. There are active and spritely old people of 80 whose minds are never still even if their physical mobility is impaired. Retirement at 65, often compulsory, leaves many completely unprepared for endless leisure. Those whose days have been filled by manual or repetitive tasks requiring the minimum of initiative and responsibility are worst affected unless they have a suitable hobby or interest which they can follow at home. Those with more varied responsibilities have usually developed sufficient elasticity of mind and broadness of vision, unless they have been entirely absorbed in their work, to be able to find numerous outlets for their initiative.

Most dangerous to the independence and vitality of the elderly is the feeling that they are not wanted, that their purpose in life has come to an end. This becomes particularly acute with the death of the spouse or the marriage of a child who has long acted as companion and support. Such natural feelings can best be overcome by a wide range of interests and circle of friends to hold the old person's attention. It is inevitable that in the evening of many lives attention becomes more

and more directed to the past, the 'good old days'. It is equally striking that those who remain active and lively in advanced years are those who, whilst relying on past experience, are always prepared to look to the future and the new idea.

It may be that for many old people little can be done to foster a sense of purpose. So much is a matter of temperament, philosophy and the experiences that have moulded character on life's journey. The National Old People's Welfare Council (1959) have undertaken a careful investigation of adjustment to ageing and their views merit careful consideration. At least three important points emerge. First, public and industrial policy on retirement requires to be examined afresh. It may be that the correct solution is progressive raising of the retiring age over a number of years with the introduction of a range of five or more years during which voluntary retirement is possible. Second, those in middle life should be encouraged to plan and prepare for retirement. Third, loneliness should be avoided 'by the cultivation both of adequate contacts with family or friends and of a wide variety of interests and activities'.

Institutional Care

The elderly may not be able to remain at home, even with the support of the domiciliary services, for two main reasons. First, their home may be so inadequate that domiciliary care is impossible; second, their physical or mental infirmity may be such that they require help and supervision beyond the scope of the domiciliary services. The importance of the home and of domiciliary services have already been discussed. The more these are improved and expanded the less old people will require institutional care. Three groups of elderly sick were recognized by the Special Committee (1947) appointed by the Council of the British Medical Association to investigate the treatment and care of the elderly and infirm:

- (a) acute sick;
- (b) long-term sick (potentially remediable);
- (c) irremediable'.

In addition they distinguished between 'elderly psychiatric patients . . . needing custodial care in a long-stay annexe' and 'those in need of active psychiatric care or treatment in a mental hospital'.

Past, Present and Future Provision. It is certain that the elderly when acutely ill require the wide range of services provided for younger people in acute hospitals. They require the same intensive medical and nursing care and in fact their needs are often more exacting than those of the younger person. It is largely an historical accident that the hospital care of the elderly, when acutely ill, has been separated from the care of younger adults.

Hospitals have always been reluctant to admit old people because of the likelihood that the old person will occupy a valuable hospital bed, not only longer than a younger person, but long after the medical requirement for hospital care has subsided. This resulted in separate institutions, not equipped as hospitals, caring for the elderly in various states of health from the bedfast to the frail ambulant but homeless old person. Such institutions had no radiological or pathological facilities and none of the ancillary services to be found in a modern hospital. Many were also deficient in the ordinary facilities for the toilet and simple nursing care of bedfast patients. Some of these institutions developed infirmary blocks but they were understaffed and totally unsuited to the treatment of acutely ill patients.

The conditions existing ten years ago are vividly described by Thomson (1949) in his Lurneian Lectures. He pays a tribute to the care and devotion of the scanty and largely untrained staff, but it is a sorry tale of avoidable human suffering. There has been considerable improvement in the past ten years but there can be little doubt that such conditions exist in many places today. It is valuable to study some of Professor Thomson's conclusions. He was struck by the apathy of the majority of patients, about half of whom were bedridden. He estimated that the disintegration of personality brought about by an institutional routine meant that only about 5% of bedridden patients had any hope of rehabilitation. By contrast he estimated that on admission a third of the patients really required only domestic help with monthly visits by a doctor. Many patients came to feel secure and at home in the institution; 65% of men and 71% of women within three months of admission were keen to return home, but after four years only 45% of men and 28% of women still wished to do so. These figures would probably have been lower if the patients were faced with the actual possibility of discharge. In fact with increasing duration of stay the possibility gradually evaporated: within three months of admission 71% of men and 51% of women had a home to which they could go, after four years the figures were 24% and 13% respectively.

Such a situation can be alleviated in a number of ways. The provision of an adequate home and good domiciliary care have already been considered. A vital factor is the selection of patients for admission (Kropach, 1951; Graham, 1954). Ideally this should be done by a member of a team caring for the elderly of the area. Such selection should ensure that admission is essential, further domiciliary care being impossible, or contrary to the best interests of the patient; it should also mean that the patient is admitted to the accommodation best suited to the case, acute, long-stay or psychiatric.

There can be no doubt that the acutely ill who need hospital care, whatever their age, should be in an acute general hospital. The highly costly staff and equipment cannot be made available

elsewhere. If an attempt is made to improve the facilities of existing institutions, other than those facilities essential for general care, they can never reach the standard required and the historical accident of the separation of the elderly acute sick from other acutely ill people is perpetuated. It is to be hoped that in future comprehensive hospitals will gradually be established which provide on one site accommodation for acute and long-stay cases of all ages, and for the mentally ill (McKeown, 1958, 1959). Such a hospital would, by ending the wide physical separation of patients requiring different types of care, reduce the isolation of these aspects of medical practice. There would be a direct advantage in that the accommodation appropriate to the patients' condition would be readily available on one site and transfer from one type of accommodation to another could take place without any necessary change in medical supervision. Medical, nursing and ancillary staff would be attracted to such a hospital and could be more easily deployed to provide the service required and to experience different aspects of hospital work. Specialist work would inevitably be restricted to certain parts of the hospital but an opinion would always be available and patients could get special treatment in long-stay wards, or after transfer, as the case required.

Nurse recruitment would be improved and the burden of chronic or mental nursing could be shared more equally. Many nurses who received a comprehensive training might find themselves attracted to other than acute nursing or they might after marriage take a part-time job in a comprehensive hospital when they could not be used in an acute hospital and would not consider chronic sick or mental nursing. It might even be that, with a broader basic syllabus, a new form of training emphasizing the practical aspects of acute, chronic and mental nursing would develop. A common practical training for all student nurses with the selection of those of proved ability for higher professional training would produce more of the type of nurse required to ensure first, that those with an inclination towards practical training are not excluded for irrelevant reasons and second, that higher training is not wasted. The establishment of a large body of practical nurses with broad experience of acute, chronic and mental nursing would be of great benefit to the sick of the nation and in particular to the increasing numbers of elderly sick.

Geriatrics. An attempt has been made to amalgamate the individual specialist and community aspects of the medical care of old people by creating yet another specialty—geriatrics. Geriatricians have done much good work and fill a real need. They do not study a particular system like

the neurologist or cardiologist, nor a group of diseases like the venereologist, nor a method of diagnosis or treatment like the radiologist or specialist in physical medicine. Their patients, like those of pædiatricians, are distinguished by age, but the diseases from which they suffer are less different from those of the adult. The proximity of birth and the setting of the young family are replaced by the uncertainty of death often accompanied by social isolation.

The intensive study of social aspects of patients admitted to geriatric units has been of great benefit. So soon as the acute phase is over the emphasis in a geriatric unit is on active rehabilitation and the goal is the return of the old person to his home or to a sheltered community. This goal is achieved by a team of workers within the hospital comprising the nurse, the occupational and physiotherapists and the almoner. Their work is directed by the geriatrician who has also been responsible for the care of the patient during the acute illness. Contacts are made with the community service, and the home and personal circumstances are examined. Everything possible is done, whether by physical adaptation of the home, by contact with relatives or voluntary organizations or arranging admission to an old people's home to ensure that the patient can leave hospital as soon as possible and achieve independence.

A number of patients will never be well enough to leave hospital and will always require nursing care. These patients should have separate accommodation from those who are acutely ill or undergoing rehabilitation, but they should remain under the care of the geriatrician. He will give any necessary medical attention and from time to time review the possibility of rehabilitation. Wherever possible these wards should be provided on the hospital site on a domestic scale.

Some patients will never recover sufficiently to live at home but they may well be transferred to a sheltered environment which is more a home than an institution. Here they will get help with washing and dressing, and meals and night supervision will be available. This is not the place to discuss the detailed provisions of such a home but it should include sitting-rooms, recreational facilities and if possible a garden. It should be possible to nurse minor short-term and terminal illness. The medical supervision could best be given by a member of the geriatric unit, ideally a general practitioner who also works in the acute and rehabilitation wards.

The requirements and detailed organization of a geriatric unit have been established for some time and described elsewhere (Warren, 1946; Cosin, 1947). Amulree (1955), reporting on the operating and results of such a unit, says that of 246 patients seen six months after discharge from the unit 40% were active, the remainder were housebound (28%), bed-ridden (6%) or dead (26%). These patients were subject to critical selection before admission. It is encouraging that of old people

whose condition was serious enough to demand admission, even with the well-developed domiciliary services of London, 40% of those discharged should be active six months later.

It is argued that acute illness in the elderly can be better, or at least as well, treated in the wards of an acute general hospital by the appropriate specialist, usually a general physician. It is certain that the facilities of X-ray and pathology, and sometimes operating theatres, are required by the acutely ill old person. It may be that the need for geriatricians arose more from the isolation of the elderly sick than from their special needs. The difficulty still remains that the ultimate rehabilitation and return to the community is not inspired by the direction of the doctor in charge of the case. If he has little experience or interest in the social problem of rehabilitating the elderly little is done, the almoner is asked to arrange 'disposal' and medical attention virtually ceases.

Another possibility is that the after-care of the elderly in hospital should be directed by adequately trained doctors selected from those who are interested amongst local general practitioners or local authority doctors. These doctors would act as clinical assistants to the physician in charge of the case but would have full responsibility for the rehabilitation and subsequent supervision of the patient. They would organize the return home and might well be responsible for continued supervision at home if the patients and their own practitioners agreed. Such an arrangement would have many advantages. Often the patients' doctor at home and in hospital would be the same; the doctor dealing with the return home of the patient would have an intimate knowledge of the home and family circumstances or, if a local authority doctor, he would have the range of domiciliary services at his command. Above all there would be a unity of interest between hospital, home and community medicine working together for the benefit of the patient.

Medicine Reunited. The above suggestion is one example of how doctors outside the hospital would be brought into the main health centre of the community. All three branches of medicine have something to contribute to the care of the patient. If the hospital is only a specialist institution for the study and treatment of disease it will not realize its potential. Any good hospital develops a corporate spirit and many have an affectionate place in the hearts of their patients. The general practitioner as the pivot of individual medical care and the medical officer of health in his dual role of guardian of the public health and director of the community health services should be given an active place in the hospital. Together they would serve the needs of the patient both in and out of hospital.

Modern medicine is suffering from a split between hospital medicine and home medicine, a sort of profes-

sional schizophrenia. At home the problem is that the normal life of the patient is disturbed by some disease. The precise nature of the disease is only important by reason of its effect on normal life. Symptomless hypertension, though interesting to the physician, is of no significance to the patient. On the other hand, painful corns, of no account to the orthopaedic surgeon, are a real handicap. In hospital there is a tendency to turn things the other way round: the patient is the vehicle of an interesting condition. While due regard is given to the patient as a person (and there is here no criticism of the kindness of hospital staff) it is usually quite clear that interest is centred on the disease rather than on its effect upon the patient: symptoms are pointers to the disease rather than evidence of disability. This split has been widened by the increasing complexity of medicine and, in this country by ten years of the National Health Service in which hospital, home and community medicine have been in separate administrative compartments. It is inescapable that as medicine becomes more complicated, specialization and consequent narrowing of outlook should come about. The general practitioner may feel that he is a signpost to the special department and his relative isolation means that he finds it difficult to interpret and apply specialist opinions. There is a tendency for patients to return again and again to clinics because the consultant and general practitioner do not have mutual understanding. It is the general practitioner who should maintain the comprehensive broad view of medicine, but this he cannot do in professional isolation.

A proper partnership based on the hospital and extending into the community would link all the interests serving the patient. This should not be confined to the care of old people. It should spread through all departments of the hospital either as an adjunct to the specialist department, as a separate department of rehabilitation or as a department of social medicine. There are beginnings already: Edinburgh and Manchester have their general practitioner units attached to the teaching hospitals. King's College Hospital has an active rehabilitation unit which prepares the way for and follows the return home of the patient; The Royal Free Hospital has an active department of social medicine. In some hospitals general practitioners or local authority doctors work closely with geriatric units. This is something to foster and which will eventually enhance medical practice and substantially benefit the patient. It cannot be achieved by liaison committees. All those concerned must work actively in the same environment, they must be colleagues, not sparring partners across a committee table. Meetings and minutes may be required but they should be the spontaneous product of collaboration, not the artificial embodiment of spurious co-operation.

Conclusions

1. The provision of suitable houses for the old is of prime importance in solving the problem of the ageing population. A specific and known share

of new houses should be built to meet the needs of the elderly.

2. The review of pension policy should be completed. Pensions cannot be financed solely out of contributions and agreed supplements should be provided which would take account of the cost of living.

3. The services of the district nurse and home help are indispensable: they require the constant support of the general practitioner.

4. There is scope for socio-medical research on services to help the elderly. The co-ordination and development of these services would follow from an active partnership between hospital and domiciliary workers.

5. Much suffering could be avoided by identifying frail old people at home and giving help before deterioration begins. Immediate domiciliary help should be available at any time in an emergency.

6. Retirement policy should be reconsidered. Education may assist adjustment to ageing and visiting, clubs and home occupations are important. An interest and purpose in life sustain vitality.

7. Patients requiring admission must be carefully selected. Those acutely ill must receive the same care in an acute hospital as is available to younger people.

8. The geriatric unit should act as the centre for the intensive care of the elderly. It should embrace in its active team doctors, nurses and other workers who care for the patient at home.

9. A comprehensive hospital providing acute, chronic and mental beds on one site would facilitate the care of the elderly sick.

10. Above all, a national policy, social and medical, should be adopted. This must be bold but need be no more expensive than the institutional care which will become necessary if too little is done too late. Untold suffering will be avoided if action is taken now.

Proposals

A consideration of the size and needs of the ageing population leads to proposals for meeting the problem. The ageing of the population is inevitable but it has been shown that there are favourable as well as gloomy portents. The proportion of dependants is less now than a hundred years ago and we have a much larger active population. It is vital that a bold policy be decided and put into effect now. Many of the facilities and services are deficient at present and delay will aggravate the problem.

The proposals fall into two main groups, social and medical. The social proposals are for

adequate housing and a reconsideration of pension and retirement policy. They are complementary to the medical proposals enumerated below:

1. Expanded and improved domiciliary services.
2. Ascertainment of the needs of individual old people and immediate help at home in an emergency.
3. An active partnership between hospital and domiciliary workers.
4. The hospital to be the centre for a team which would sustain the elderly sick by admission to an appropriate ward, by active rehabilitation, by emergency help or co-ordinated long-term help at home, or by transfer to a chronic or mental ward.
5. Acute, chronic and mental beds to be available on one site in future hospitals.

There is a great body of information available on the needs and possibilities in the care of the elderly. The sands are running out. Decision and action are required now. Some of the principles on which progress could be made have been discussed and set out. Slow progress is being made towards meeting the problem of the ageing population. A clear lead from the medical profession would help to ensure that our old people live as full a life as possible in the evening of their days.

Summary

The essential unity of medicine and the great importance of adequate co-ordination of the personal, community and hospital aspects of the care of the patient are emphasized. A study of the size of the problem of the ageing population shows that a substantial increase in the numbers of the elderly is inevitable and that smaller families mean that there will be less relatives to care for their old people. On the other hand more old couples may survive to give one another mutual support. There is no reason to suppose that the economic burden of the elderly will be unduly great providing adequate measures are taken now to provide for their care.

The needs of the elderly are discussed in terms of housing and economic needs; their needs for service; the importance of early recognition of the need for help; the provision of immediate help at home when required; and the vital stimulus provided by occupation and a sense of purpose. The present hospital provision is seen to be based largely on history. Methods of providing an adequate hospital service for the elderly are discussed and proposals are put forward for bridging divisions between hospital and domiciliary worker and between acute, chronic and mental wards of hospitals.

Decision and action are urgent.

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