Marital Status and Hospital Use

Report of a study of Elderly People Admitted to Acute Hospital in-patient care

Myfanwy Moragn

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Myfanwy Morgan

SUMMARY

This study forms one of two related studies set up to examine the relationship between marital status and hospital use. These studies arose from the analysis of data collected in the Hospital In-Patient Enquiry and the Hospital Activity Analysis, which pointed to the existence of substantial differences in the rates of use of non-psychiatric in-patient care by non-married compared with married people. For example, it was calculated that in England and Wales, 1973, if non-married people had experienced the same rates of admission and length of stay as married people they would have occupied about 23,000 fewer beds each day. As might be expected the majority of this additional bed use by non-married people was concentrated among those aged 65 years and over. However the higher rate of use by the non-married was found among both men and women and appeared to occur in both acute and long-stay and geriatric hospitals.

One of the fundamental issues underlying the present study is that of the appropriateness of resource use. In particular, it is concerned with the question of whether the higher rate of use of hospital beds by non-married compared with married people is due to their greater clinical needs for hospital care or whether it is due to differences in the medical profession's perception of their social needs for care. In addition this study seeks to identify the specific social factors which result in the higher rate of bed use by non-married people and to determine whether such use is concentrated among particular groups of non-married people. Besides looking at the medical profession's perception of the relative needs for care of married and non-married people this study also looks at the home circumstances of married and non-married people and is concerned to establish whether there is a greater unmet need for social care among the married. While the present study is primarily concerned with the use of hospital beds by married and non-married people it is hoped that the related prospective study of elderly people in the community will provide information on pathways into care and the use of a wide range of health and social services by married and non-married people which will contribute to our understanding of the observed relationship between marital status and non-psychiatric hospital use.

The present study consists of two parts. One part consists of a review of a consecutive series of 424 elderly people admitted to the medical and surgical wards of a district general hospital during a nineteen-week period, while the second part consists of follow-up interviews conducted with as many as possible of this same group of people shortly after their discharge from

the study wards. The review provides information as to the reason for the patient's admission, whether, and if so why, any delay occurred in their discharge and the reasons for the place of discharge of patients who did not return to their usual home. The follow-up interviews provide information on the patients' experience of hospitalisation and on the factors associated with their medical and social needs for care. Thus information is collected on the circumstances surrounding their admission to hospital, their views as to the appropriateness of the length of hospital stay and on how they managed after being discharged as well as more general information on their perception of their usual state of health and activity restrictions, their social contacts and availability of care and the amenities available in their homes.

The study is restricted to people aged 65 years and over admitted to acute hospital in-patient care. The age group 65 years and over was selected for study because it is the elderly, and especially elderly non-married people, who account for the largest proportion of hospital bed days. The decision to focus on patients entering acute hospital care was taken because while there is considerable evidence concerning the use of long-stay hospitals for primarily social reasons, less is known about the use of acute hospital beds.

The main findings and recommendations arising from the study are briefly summarised below:

Utilisation reviews as a research tool The experience of carrying out the present review indicates that such a review could be set up and carried out by the hospital staff themselves. However, attention is drawn to several factors which need to be taken into consideration in undertaking the type of review carried out in the present study. Perhaps of particular importance is the fact that while the method of following individual patients through their stay has the advantage of enabling the number of days spent in the study wards to be identified it does require a fairly long study period. This in turn necessitates the regular participation of staff in the review over a considerable period of time and may lead to particular difficulties if there are frequent changes in personnel, and particularly in those acting as reviewers.

With regard to the interpretation of the findings of a review it is shown that considerable difficulties exist in making comparisons between the findings of the various ad hoc reviews which have been undertaken due

to differences in their methods which exert an important influence on the results obtained. It is suggested that the use of a more standardized method of review, and especially in terms of the criteria used in assessing a patient's need for hospital in-patient care, would serve to increase our understanding of the relationship between the findings of reviews and the characteristics of the hospital setting.

Interpretation of routine hospital statistics The study draws attention to the problems involved in the interpretation of routinely collected data on mean durations of hospital stay. Such data is generally based on the length of stay in a particular facility. This may however be very different from the patient's total length of hospital stay in situations where there is a high rate of transfer between hospitals. Comparisons of lengths of stay over time or between hospitals should therefore take into account possible differences in the rate of transfer between hospitals. The study also points to the existence of a fairly high rate of re-admission over a short period of time and raises questions as to the causes of such multiple admissions and the extent to which it results in the concentration of hospital bed use among particular groups of people. Such information is not available from the routinely collected statistics, as these relate to admissions rather than to patients and do not permit the linkage of different episodes of in-patient care.

Bed use in the study wards The review shows that among the study population non-married people had a higher rate of admission than married people. This finding corresponds with the analysis of the national HIPE data on the rates of admission of married and non-married people. However in contrast to the pattern revealed by the HIPE data there was no consistent difference in the lengths of stay of married and non-married people among the study population. In addition, the admission and retention of patients in the study wards for primarily social reasons was found to be fairly evenly divided between married and non-married people. It is hypothesized that the lack of any marked difference in the use of beds by married and non-married people in the present study is associated with the particular characteristics of the study wards, and particularly the short mean length of stay and high rate of transfer of surgical patients, which resulted in only 10 per cent of the bed days used by medical patients and 5 per cent by the surgical patients being recorded as occupied for social and/or administrative reasons.

Marital state and the need for care The present study together with the review of the literature suggests that the substantial variations in hospital use between married and non-married people revealed by the analysis of the HIPE and HAA data arises as a result of both the greater clinical need for hospital care of non-married people and their use of beds for primarily social reasons. However the hospital review showed that the use of beds for primarily social reasons was not confined to non-married people. Indeed the study provided some indication that as a group elderly married people may have greater unmet needs for care than single and widowed people due both to the incapacity of their spouse and to the fact that they were less likely than those who lived alone to be transferred to another hospital or to be in receipt of community services on returning home. Thus attention is drawn to the need to consider in relation to admission and discharge decisions not only the presence of other household members but also their age and ability. It is suggested that such information should be routinely recorded on the patients' hospital forms and that particular attention should be paid to the needs for care of both elderly married people and those who live alone.

Those who lived alone did not appear to have any special difficulties on discharge, which was probably partly due to their longer average hospital stay and their being more likely to be in receipt of community services on returning home. However there was evidence that single and widowed people living alone may encounter problems in contacting assistance in times of illness. This draws attention to the important role that can be played by neighbours in ensuring that elderly people are not isolated and that their needs are made known and lends support to the development of 'good neighbours' schemes.

Alternative provision The two main alternatives to acute hospital care for those who are currently admitted or retained due to their home circumstances are care at home or care in a lower level facility. Attention is drawn to the need to take into account both the availability and ability of family members and the social costs of providing home care in relation to any proposals which serve to increase the extent to which the family is relied on to care for the sick. In particular the information gained in the present study concerning the home circumstances of these elderly patients suggests that any decrease in the extent to which acute beds are used to provide primarily social care should depend on the provision of alternative residential facilities. Such provision may take the form of nursing homes or community hospitals. However, the advantage of developing these types of facilities

rather than using acute hospital beds will necessarily depend on the relative social and economic costs of the different types of service use. Thus it is suggested that further costing studies are undertaken in relation to the provision of care for those who do not require, or who no longer require, the facilities of an acute hospital but who are thought to need a short period of nursing care.

I INTRODUCTION

Differences in the rates of hospital use between married and non-married people have been well documented, and especially in relation to psychiatric hospitals (e.g. Kramer, 1969; Baldwin, 1971; McKechnie, 1972). Less information appears to exist on non-psychiatric hospitals but a similar over-representation of non-married people has been documented both for this country and in North America (e.g. Abel Smith and Titmuss, 1956; National Center for Health Statistics, 1973a; 1973b). However, although it has long been known that non-married people have a higher rate of hospital use than married people, there is little information about the total number of bed days involved, or about the relative influence of admission rates and lengths of stay in contributing to their higher rate of use. The routinely collected Hospital In-patient Enquiry data, which relates to admissions to all non-psychiatric hospitals in England and Wales, provided an opportunity of examining these questions. The results of the analysis of HIPE data for the years 1964-1970 were presented in an interim report, together with a review of the literature on the relationship between marital status, illness and the use of health services (Butler and Morgan, 1974). Subsequently, an analysis was carried out of the 1973 HIPE data, which forms the most recent report to have included tabulations by marital group of daily bed use, discharge rates and mean durations of stay. In addition, special tabulations were obtained of the Hospital Activity Analysis for the South East Thames region, 1975, which overcame some of the limitations of the published HIPE data in examining the relationship between marital status and hospital use (Butler and Morgan, 1977).

The analysis of HIPE and HAA data

Analysis of the HIPE data for the years 1964-1970 and 1973 confirmed the pattern reported by previous studies of a higher rate of hospital use by non-married compared with married people.* This difference occurred among both men and women and in each broad age group over 25 years and appeared to be due to differences in admission rates and in length of stay. The relative effect of differences in admission rates and in lengths of stay in contributing to the higher rate of hospital use by non-married people varied with age. In general, the difference in the rates of admission of married and non-married people

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* The HIPE tabulations classify people into two broad groups of married and 'other'. This latter category, which is here referred to as the non-married, therefore consists of single, widowed and divorced people and also those whose marital state was not recorded.

tended to decrease with rising age, while the difference in the average length of stay tended to increase. For example, it was calculated using the 1973 HIPE data that 71 per cent of the additional bed days used by non-married people aged 25-34 years was due to their higher admission rate and 29 per cent to their greater length of stay, while among those aged 75 years and over the percentages were reversed, with only 29 per cent of the additional bed days used by non-married people in this age group being due to their higher admission rate and 71 per cent to their greater length of stay (Butler and Morgan, 1977). Although the difference in the rate of bed use of married and non-married people was found in each broad age group over 25 years, elderly people aged 65 years and over accounted for about three-quarters of the additional bed-days used by non-married people. The high concentration of additional bed days among elderly non-married people is due both to the substantial differences in the rates of use between elderly married and non-married people and to the large number of non-married people among those aged 65 years and over.

The published HIPE data has three major limitations in relation to the present analysis. One limitation is that it classifies patients into two broad groups of married and 'other', with the latter group including those of no known marital status. Another limitation is that it does not distinguish between different types of non-psychiatric hospital, while a third limitation is that it provides no indication of the extent of re-admissions or of transfers between hospitals. In order to overcome these deficiencies, special tabulations of HAA data were obtained for the South East Thames Region, 1975. HAA data for this region suggested that the higher rate of bed use found among non-married patients as a whole are maintained for both the single and widowed considered separately. In addition, differences in the rates of hospital use between married and non-married people were apparent in each of the categories of acute, long-stay and geriatric, convalescent and specialist hospitals. The actual number of beds required by non-married people to sustain their higher rate of bed use was, however, greatest in the acute hospital group, due to the large number of beds in this sector (Butler and Morgan, 1977). No information is available from the HAA on the question of re-admission but it is possible to distinguish between patients discharged home and those transferred to another hospital or convalescent home. Information on place of discharge from the HAA data for the South East Thames Region showed that in 1975, 7 per cent of men and 8 per cent of women were transferred to another NHS hospital or convalescent home, with the rate of transfer being higher for single and widowed than for married patients and the difference increasing with rising age. This suggests that a part of the higher admission rate among non-married

patients may result from transfers rather than new admissions. The variations between marital groups in rates for new admissions could therefore be smaller than suggested by the HIPE data, while the difference in the length of stay between married and non-married patients is probably greater than the HIPE data indicate, as a patient who is transferred to another hospital would be recorded as two separate admissions and hence as two separate (and shorter) periods of hospital stay.

One possibility that must be considered in relation to the apparent differences in the rates of hospital use between married and non-married people is the question of whether they may be due to artefacts in the data. In particular, it is possible that the differences in rates of hospital use between married and non-married people are at least partly explained by the size of the age bands used in the HIPE tabulations. At all ages, but particularly in the two highest age groups (65-74 and 75 years and over) the age distribution is different for married and for non-married people. Within the age groups 65-74 and 75 years and over non-married people appear to have an older age distribution than married people, reflecting the greater risk of widowhood with increasing age. This means that the age bands used in calculating rates of hospital use offer only a partial control for the effects of age. It is therefore to be expected that by using narrower age bands the differences in the rates of hospital use between married and non-married people would diminish. In order to gauge the magnitude of this discrepancy, estimates were made of the rates of bed use by married and non-married patients within quinary age groups between 25 and 90. By comparing the additional beds used by non-married patients, derived from the calculations based on the HIPE age groups and the rate calculated from the quinary age groups an estimate was reached of the distortion resulting from the large size of the HIPE age bands. The results suggest that the data on the additional beds used by non-married men should be deflated by about 7 per cent and the additional beds used by non-married women by about 40 per cent (Butler and Morgan, 1977). However, even after allowing for this, there remain substantial differences in the rates of bed use by married and non-married people. For example, the 1973 HIPE data show that after applying these deflation factors the additional beds used by non-married people was in the region of 23,000 beds each day. This represents about 30 per cent of all beds in non-psychiatric hospitals used by people aged 25 years and over. Thus, although part of the apparent difference in the rates of hospital use between married and non-married people appears to be due to differences within broad age bands, there still remain substantial differences which cannot be accounted for in these terms.

The research approach: need and service use

The demonstration of substantial differences in the use of facilities and services between population sub-groups gives rise to a large number of questions concerning the causes and consequences of the observed variations. However, one of the central issues from the point of view of health care policy and planning is that of the question of the relationship between need and service use. Whereas the price mechanism serves to distribute resources in the market place, under the National Health Service facilities and services are free at the point of consumption. Thus, the primary objective of the health and social services is to distribute resources in relation to needs, rather than in terms of the ability to pay, with the aim being to ensure what is regarded as an equitable, efficient and effective distribution of services and facilities.

Although the notion of need has a central place in social policy and forms the fundamental criterion for the distribution of services and facilities, the concept of need has no single accepted meaning and has been variously defined or left undefined (Cooper, 1974; Culyer, 1976). However, an important consideration underlying most definitions of the need for a service is that the service is an instrumental means of achieving a desired end and is therefore only needed insofar as the end or outcome is needed (Cooper, 1975). It is also recognised that the need for a particular service is generally not an absolute need, for several means usually exist to achieve a given end and choices therefore have to be made, while what is regarded as a desirable aim or outcome is dependent on the prevailing cultural and social values. As well as the question of the type of judgement that is being made there is also the question as to who makes the judgement as to the need for a service. One possibility is for the judgement to be left to the individual involved. In such a case the judgement of need takes the form of self-perceived or felt need and can be equated with want. An alternative approach is that of normative need which exists when judgements of need are made by experts or professionals (Bradshaw, 1972). The experts or professionals may be concerned with judging individual needs for particular services or facilities or with judging the needs of population groups. Such judgements are made in terms of both the technical means available to achieve a desired end and in terms of the current philosophy and values of society and of those directly involved in the judgement.

The existence of substantial variations in service use between social groups gives rise to the question of whether the differences in rates in use reflect differences in normative needs for the particular service or group of

services under consideration. On the one hand it is possible that the difference in the rates of service use reflect differences in professionally defined needs. In this case the greater use by a particular group is explained in terms of their greater need and thus need and use can be regarded as being in relative balance. A second possible cause of differences in the rates of service use between population groups is that this arises as a result of the existence of unmet need (or a greater amount of unmet need) among the low-user group. In this situation the low user group can be regarded as being in comparative need (Bradshaw, 1972). A third possible explanation of such variations in service use is that the rate of use by the high user group is higher than is considered necessary in relation to what is regarded as its need for the particular service or facility in question. However, whether or not a rate of service use which is judged to be greater than can be justified in terms of professionally defined need for the particular service under consideration will be regarded as evidence of unnecessary or inappropriate use, will depend on the reasons for such use and the context in which such judgements are being made. For example, a medical practitioner, who is primarily concerned with the needs of the individual patient, may view such use as necessary use in the absence of alternative (lower-level) facilities and services. The policy maker and planner on the other hand is primarily concerned with the total needs of the population and of ordering relative needs and determining priorities, and may therefore view such use as unnecessary or inappropriate in that it does not represent the most efficient use of resources for achieving the desired goal or outcome.

While it is possible to identify three types of explanations of the differential rates of service use between social groups, it is recognised that these do not necessarily form alternative explanations and that two or more types of explanations may contribute to the observed variations. For example, the high rate of service use by a particular group may be due in part to their having more conditions of the type that are normally judged to require a particular service. However, the high user group may also be using these facilities or services for conditions which are judged to have a low priority on the claims of the particular service under consideration and which could be catered for in other ways, while at the same time the rate of use by the low user group may be less than is considered appropriate in relation to their needs.

The question of the causes of variations in service use between social groups has been of considerable concern in the health care field. Thus, a long-standing and fundamental issue has been that of whether the

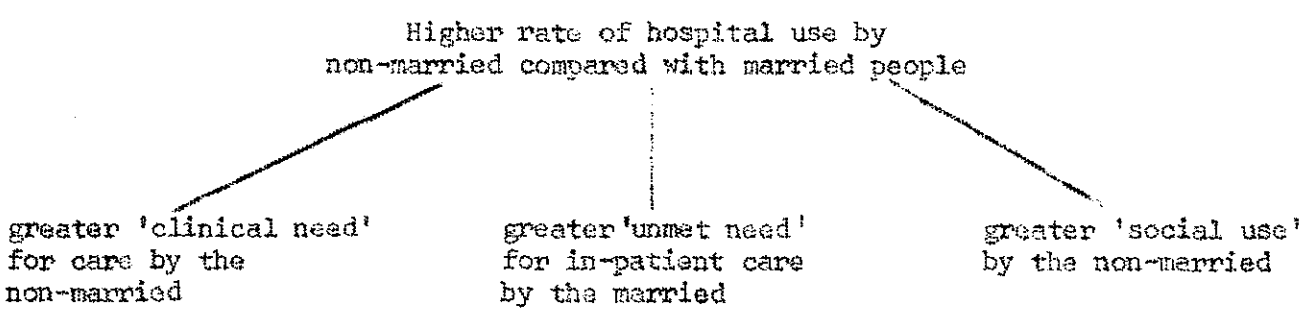
variations in rates of service use between social groups reflects a possible inappropriate non-use of services and facilities by the low user group. This approach has been termed the humanitarian approach to need with the main emphasis being on the identification of unmet need (Acheson, 1978). Concern over the existence of unmet need arose from the finding of substantial variations in the use of health services between social groups and of an iceberg of illness in the community despite the removal of the financial barrier to health care. This concern has mainly focused on the use of primary medical care and particularly on the question of the causes of the differences in the rate of general practitioner consultations by social class groups (Titmuss, 1968; Rein, 1969; Hart, 1971; Townsend, 1974; Forster, 1976; Le Grand, 1978). Similarly, in the field of preventive health care there has long been concern over the differences in rates of use by social class and particularly of why the lower social classes have a smaller uptake of such services and thus what is deemed to be inappropriate non-use in relation to their needs (Alderson, 1970; Cartwright and O'Brien, 1976). While the question of the inappropriate non-use of health services has been of continuing concern an increasing emphasis is being placed on identifying the extent to which variations in service use point to the existence of a higher rate of use than is considered necessary, in that it arises from catering for a need which has a low priority in the hierarchy of claims on the particular service or facility and could be met more efficiently in other ways. This emphasis on the ways in which resources are deployed has been termed the resource-oriented approach to need (Acheson, 1978). The emphasis on the resource-oriented approach to need springs from the recognition that not all felt or normative needs can be met by the available resources, for while needs for health services are infinite, resources are finite, and thus ways must be devised for ordering needs and allocating resources on what is deemed to be an equitable and efficient basis (Culyer, 1976). Whereas the identification of inappropriate non-use has probably been the dominant concern in relation to studies of primary medical care, the question of the inappropriate use of services has been the major emphasis in relation to hospital in-patient care, and especially acute hospital care. The emphasis on the identification of the extent to which hospital in-patient care is used in circumstances when the patient's needs could be as effectively met in a lower level facility is probably due both to the high costs of in-patient care and to the existence of long waiting lists and an ever-increasing demand for hospital services. Such concerns have formed a major factor underlying both the mandatory reviews of hospital use undertaken in the United States and the ad hoc reviews carried out in this country (Stuart and Stockton, 1973; Mechanic, 1978; Carstairs and Haasman, 1974).

Marital state and the need for hospital care: a review of the literature

The possible relationships between need and service-use outlined in the previous section are shown in figure 1 in relation to the differential rates of hospital use of married and non-married people. One possible explanation of such differences is that non-married people have a greater clinical need for hospital care than married people due to their experiencing more illness of the type that is normally judged to require in-patient care. To the extent that differences in the rates of hospital use between marital groups do reflect differences in their clinical need for in-patient care, the higher rate of use by the non-married may be regarded as an entirely appropriate use of resources, and the need and resources use by the two groups can be regarded as being in relative balance. A second possible cause of the observed variations in hospital use is that married people have a greater unmet need for hospital in-patient care, through their being less likely to enter hospital for conditions which could benefit from hospital treatment. The third possible cause of the differential rates of hospital use is that non-married people are more likely to be admitted to hospital and retained in hospital because their physical and/or social environment is regarded as being less suited to domiciliary care. To the extent that this occurs, there is the question of whether this represents an appropriate use of resources or whether such needs could be catered for as effectively by other lower cost facilities and services. This question is of particular concern in relation to acute hospital care, where the dominant emphasis is on active medical intervention. For example, the 1962 Hospital Plan stated with regard to the elderly, that they require treatment in an acute hospital when acutely ill, "but that he or she should normally only remain in such a hospital for the period in which medical or surgical care was required" (Ministry of Health, 1962).

Figure 1

Possible explanations of the higher rate of hospital use by non-married compared with married people



A literature review was undertaken to examine the evidence concerning the three types of explanations identified in figure 1 for the higher rate of hospital use by non-married compared with married people. One way of identifying whether such differences may be due in part to the greater clinical need of non-married people is to look at the relative morbidity experience of married and non-married people. Mortality rates have traditionally been used as an indicator of the extent of morbidity in the population, for death is usually a clear and easily measured event, while no such sharp distinction exists between a healthy and a diseased state in an individual. However, whereas morbidity and mortality were clearly linked in earlier times, the extent to which differences in mortality rates may be regarded as a valid indicator of disease in today's advanced industrial societies is unclear, for much morbidity is of a chronic nature. Nevertheless, despite such drawbacks, mortality rates still form the most readily available and widely used indicator of the extent of morbidity in the population. With regard to the mortality rates of marital groups it has long been known that married people generally display lower mortality rates than the non-married. In 1859, William Farr reported that 'a remarkable series of observations extending over the whole of France enables us to determine for the first time the effect of conjugal condition on the life of the population', and he concluded on the basis of these observations that 'unmarried people suffer from disease in undue proportion and the have-been married suffer still more'. (Farr, 1859). In 1912 March published some extensive data on age-specific death rates by marital status for France, Russia and Sweden during the period 1886-1895, which showed that for both sexes and in almost all age groups, mortality rates were lowest for the married, rather higher for the single and highest for the widowed and divorced (March, 1912). More recent national data confirms the continuation of this trend. For example, data for England and Wales 1951 and 1961, relating to single year ages between 22 and 87 years showed that in both years the mortality rates for both men and women were higher for the single and widowed than for the married, except among single women at a few selected ages (Registrar General, 1957, 1968). This pattern of a higher age-specific mortality rate of non-married than married people has also been found to be characteristic of recent mortality data for other countries (U.S. Dept. of Health, Education and Welfare, 1970; Koskenuvus et al., 1978).

Differences in the mortality rates of married and non-married people are to some extent associated with differential mortality from certain specific conditions. However, a particularly striking aspect of the national morbidity data is the higher death rates among non-married compared with

married people for almost every major cause of death. In fact, the 1965-7 mortality data for England and Wales showed no cause of death, either among men or women, for which the SMR of married persons was greater than that for all the non-married categories (General Register Office, 1971). As Shurtleff put it, "there is no disease that kills impartially, that kills the married and the unmarried alike" (Shurtleff, 1956).

Several authors have pointed to possible artefacts in the collection and processing of the data that may in part account for the observed variations. For example, it is known that a high proportion of deaths from particular causes, and especially road traffic accidents, occurs to persons of unknown marital status, and these are conventionally excluded from the numerator in calculating marital-specific death rates. However, it seems generally accepted that although such defects in the data may account for some of the excess mortality of non-married people they do not explain more than a small part of the difference.

More direct evidence on the extent of morbidity in the population than can be gained from mortality data is that obtained from personal interviews or reports or by clinical examinations. There is, however, a wide discrepancy between self-reported illness and the volume of disease determined on the basis of clinical examinations (Meltzer and Hockstein, 1970, Maddox and Douglas, 1973). In addition, few such studies provide data by marital state. One study which does provide information on self-reported illness by marital state is the General Household Survey (Office of Population Censuses and Surveys, 1973, 1976). The results of this survey show that in each broad age group and for both men and women a higher proportion of widowed, divorced and separated than of married people reported a long-standing illness, disability or infirmity but there was no consistent difference between single and married respondents. A further question was asked about activity restrictions through illness in the two weeks preceding the interview; the answers again showed that fewer married persons reported such restrictions. This pattern of widowed and divorced people reporting a higher proportion of both acute and chronic illness than married people has also been found in studies undertaken in the United States (Lahorgue, 1960; Wan, 1972). However, it must be remembered that part of the difference in the incidence of self-reported illness may be due to the greater age of widowed than married people, with the difference in their age distribution ever occurring within broad age bands. In addition, there is the question of the extent to which such findings may be influenced by differences in the attitudes and perceptions of married and non-married people. Nevertheless, such data, together with the finding of substantial differences in

mortality rates between married and non-married people does suggest that there is a real difference in their morbidity patterns.

While it is possible to point to differences in the mortality rates, and self-reported morbidity of married and non-married people the question arises as to the extent to which such differences necessitate a greater use of hospital in-patient care. As might be expected the relationship between morbidity, mortality and hospital use has been shown to vary between disease categories. Thus, for example, in 1970 diseases of the circulatory system have been shown to account for about one-half of all deaths but only 12 per cent of hospital discharges and 7 per cent of all sickness in general practice, while on the other hand diseases of the musculoskeletal system and connective tissue represented only 0.4 per cent of deaths but accounted for 4 per cent of hospital discharges and 8 per cent of episodes of illness in general practice (Forster, 1978). However, despite such variations, West has shown there to be a significant correlation between rates of hospital use and disease categories within six of the eight ICD disease chapters examined (West, 1978). Thus, while the extent to which the higher mortality and morbidity rates of non-married compared with married people accounts for their greater use of hospital in-patient care is uncertain, the available data indicates that at least part of such use is associated with their greater clinical need for care.

The second type of explanation of the observed variations in rates of hospital use identified in figure 1 is that married people have a greater unmet need for hospital in-patient care compared with married people, through their being less likely to enter hospital for conditions which could benefit from treatment. A large number of surveys have provided evidence of a substantial amount of untreated illness in the community (e.g. Last, 1953; Israel and Teeling-Smith, 1967; Wadsworth, Butterfield and Blaney, 1971). The demonstration of a large pool of untreated illness in the community, the so-called 'iceberg' of disease, which has remained despite the removal of the financial barriers to medical care has been of considerable concern since the early 1950s and has led to a large number of studies which have sought to identify the various social and psychological factors which influence the decision to seek medical care (Stoeckle et al., 1963; Robinson, 1971; Zola, 1974; Dingwall, 1976). However, while it is possible to point to the existence of a large amount of untreated illness in the community, and thus of what can be regarded as the inappropriate non-use of medical services, little is known about the distribution of such untreated illness between marital groups or of the extent to which such illnesses might warrant in-patient care (McKinlay, 1972). Similarly, studies of illness behaviour have identified various factors which

influence the take-up of medical services besides the severity and nature of the condition, including the personality and psychological make-up of the individual, the attitudes and values of significant others and other aspects of the individual's social situation, but little is known about the possible effect of such factors in producing differences in the illness behaviour of married and non-married people. Thus, it appears that the possible existence of a greater unmet need for hospital care among married people must not be overlooked, although the available evidence does not provide any indication of the distribution of untreated illness between marital groups or of differences in their illness behaviour.

The third explanation of the higher rate of hospital use by non-married compared with married people is that non-married people may be more likely to be admitted to hospital and retained in hospital because their physical and/or social environment is regarded as being less suited to domiciliary care. Thus, it may be the case that the medical profession is more likely to admit or retain non-married people in hospital because they are perceived as having greater social needs for care.

There is relatively little information on the factors which influence medical decision-making although there has been shown to be considerable variations in medical practice and referral behaviour (Dowie, 1975). However, a large number of studies have looked at the outcome of medical decision-making in terms of the use of beds. Such studies have provided estimates of the extent to which patients are occupying beds for what can be broadly classified as social reasons, with the proportion ranging from 3 to over 30 per cent (Carstairs and Heasman, 1974). Although few such studies provide information on the marital distribution of patients coming into this category, the reasons most frequently given for such use are the lack of close relatives and the fact that the patient lives alone, both of which most commonly occur among the non-married (see for example, Mackintosh, McKeown and Garratt, 1961; Meredith et al., 1968). Further direct evidence of the influence of these factors is provided by a study of a sample of people during the last year of their life (Cartwright, Hockey and Anderson, 1971). This showed that single people and particularly single women were relatively likely to die in hospital while married people and particularly married men were more likely to be discharged to die in their own homes. Important factors responsible for such differences were identified as being the presence of other household members and the availability of children to provide care and especially daughters. Similarly, Isaacs, Livingstone and Neville found that non-married people and

especially those lacking children were over-represented among those classified as being admitted to a geriatric unit because of 'insufficient basic care' (Isaacs, Livingstone and Neville, 1972).

The over-representation of non-married people in residential care is not confined to hospital in-patient care but also appears to be characteristic of old people's homes. Thus, for example, on the basis of information contained in the 1971 census of England and Wales it was calculated that less than 1 per cent of married men and women aged 65 years and over were in homes for the old and disabled compared with 7 per cent of widowed men and 3 per cent of widowed women and 6 per cent of single men and 5 per cent of single women. Such differences could not be explained by differences in their age distribution with the greater representation of non-married people being found in each five-year age group (General Register Office, 1973). Studies of admissions to old people's homes have shown that the primary reason for admission is that of the lack or inability of relatives to provide the necessary care, with such a lack being most common among the single and among childless widowed people (Kay, Beamish and Roth, 1962; Townsend, 1964).

In contrast to the relatively high rate of use of in-patient care by single and widowed people, it appears that the latter use out-patient services most extensively. Evidence of this is provided by Forsyth and Logan's study of 50,000 new outpatients in 80 hospitals, which showed that married people were over-represented in relation to their proportion in the total population, while single and widowed persons were under-represented (Forsyth and Logan, 1968). Similar results were found from a sample of 1,556 new outpatients attending Guy's hospital in 1962 (Butterfield and Wadsworth, 1962). The results of these studies suggest that the preponderance of non-married people in in-patient care may arise partly from the fact that, in cases where hospital admission is not overwhelmingly justified on clinical grounds, the non-married tend to be admitted for in-patient care and the married to be treated on a day-patient basis.

The review of the literature therefore indicates that each of the factors identified in figure 1 may have contributed to the higher rate of hospital use by non-married compared with married people. However, it is not possible on the basis of existing evidence to assess the relative contribution of these factors and thus to determine the extent of inappropriate use or non-use of hospital beds among marital groups. In addition there is little precise information as to the nature of the social needs and home circumstances of those who are retained in hospital or of the extent to which the higher rate of use by the non-married is concentrated among particular groups of people.

II FEATURES AND OBJECTIVES OF THE STUDY

The fieldwork programme set up to examine the relationship between marital status and hospital use consists of two parts. One part, which forms the subject of the present report consists of a cross-sectional study of elderly people admitted to a district general hospital. This study is primarily concerned with looking at the ways in which hospital beds are used by married and non-married people. The approach adopted is that of a resource-oriented approach, with the main aim being that of identifying whether the higher rate of hospital use by non-married people is associated with their having a greater clinical need for care, or whether it is due to their being more likely to occupy hospital beds for primarily social reasons. However, besides looking at the general question of the appropriateness of hospital use, this study also examines the type of social factors which result in additional bed use and looks at the distribution of such social needs within the groups of married and non-married people. In addition attention is paid to the question of the distribution of unmet needs for care among marital groups.

The second part of the fieldwork programme is viewed as complementary to the present study in terms both of its aims and methods. This study consists of a prospective study of a small group of elderly people in the community and is based on an initial sample of 120 elderly people who are being interviewed at six-monthly intervals over a three-year period.* The method of following a small group of people through time should allow issues of particular interest to be studies in depth and changes traced over time. In addition it is hoped that this study will enable a variety of questions to be studied concerning the causes of the observed variations in hospital use by married and non-married people which are beyond the scope of the present study, and in particular that it will provide information on the use of a wide range of health and social services by married and non-married people and on their illness behaviour and pathways into care.

In the present cross-sectional study of hospital patients information was collected in two ways. Information on the use of beds was collected by means of a review of hospital bed use among a consecutive series of patients admitted to in-patient care, while information on the patient's home circumstances and social needs was collected by interviewing as many as possible of this same group of people shortly after their discharge from the study wards. The method of collecting information on hospital use by means of a utilization review has been widely employed, with such reviews being used for two main purposes. On the one hand a utilisation review may be formally instituted as a means of

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* This study forms the subject of a separate report being prepared by Dr. J.R. Butler.

controlling the costs and monitoring the quality of care in a particular facility, through the educative effect of the review on the physician and through the provision of sanctions in terms of the non-reimbursement of fees for services or clinical care that is deemed to be inappropriate (Rudov, 1975; Brook and Avery, 1976). This type of utilisation review has not been employed in Britain but is widely used in the United States, where hospital accreditation is contingent on the existence of a satisfactory review programme and utilisation reviews are required by both private insurance carriers and government-sponsored programmes. The other main use of a hospital review is that of a research tool designed to collect information on the use of facilities and services for planning purposes. However, while a large number of ad hoc reviews have been undertaken in this country with the aim of providing information for planning purposes, the present review has several important features which distinguish it from most previous reviews of hospital use. One notable feature of the review carried out in this study is that rather than being based on all patients occupying a hospital bed at a particular point in time, it is based on the review of individual patients at specified points during their individual hospital stay. This method enables the total number of bed days used by individual patients to be identified, as well as the number of days involved in social admissions or discharge delay. Another important feature of the present review is that it is combined with patient interviews. The follow-up interviews were designed to supplement the information recorded on the review form and also to provide detailed information on the home circumstances and social needs of married and non-married people and of differences within marital groups in terms of factors which might be associated with their needs for care.

Due both to constraints of time and personnel it was necessary to restrict the fieldwork to elderly people, and in the case of the present study to those admitted to acute hospital care. The age group 65 years and over was selected for study because elderly people as a group make the greatest demand on the health services, including hospital care, and in 1971-72 accounted for 48 per cent of the average number of beds used daily in non-psychiatric hospitals in England and Wales. Also as the analysis of the routine HIPE data indicated, the number of additional beds required to cater for the higher rate of hospital use by non-married compared with married people was greatest among those aged 65 years and over. An acute hospital was chosen as the location for the study as acute hospitals form the largest non-psychiatric hospital group in terms both of numbers of beds and of financial resources. In addition, it is in the acute sector that the emphasis on curing as opposed to providing social care is most apparent. Initially, it had been planned to include all patients age 65 years

and over admitted to the study hospital under the five consultant physicians and the three consultant surgeons. However, in view of the work-to-rule by the junior hospital staff, which occurred between the pilot and the main study, it was decided to include only one surgery firm in the main study. This was because although the work-to-rule had little effect on medical admissions it may have affected the backlog of cold admissions to the surgical wards. The one surgery firm included was, however, regarded by the medical staff as having experienced very little change in its workload due to the work-to-rule.

The hospital which forms the setting for the study is a 430-bed district general hospital serving a semi-rural area. The study hospital forms one of six hospitals classified as acute in the health district with a population of 276,400 residents. These six acute hospitals have a total of 920 beds. In addition there are five hospitals classified as long-stay or geriatric with a total of 580 beds and five specialist hospitals with 400 beds, as well as maternity units and psychiatric hospitals.

It is difficult to provide precise information as to the number of beds available for medical and surgical patients in the study wards as in some wards primarily devoted to these specialties a small number of beds were occasionally used by other specialties. However, it appeared that normally about 90 beds were occupied by medical patients and were distributed among five wards, while the one consultant surgeon involved in the study was responsible for about 20 beds (one third of all general surgery beds) although the actual number of patients under a particular consultant varies according to which firm is 'on take' in a particular week. The distribution of beds between men and women patients appeared to be fairly flexible in the case of general medicine, as only two wards were single-sex wards and three were mixed, with the relative numbers of men and women patients varying slightly according to demand. The two surgical wards involved in the study were single-sex wards providing approximately equal numbers of beds for men and women patients.

Some indication of the level of activity in the study hospital can be gained from the routinely collected statistics. Table 1 provides information on the mean length of stay and number of discharges and deaths for all general medical and surgical patients admitted to the study hospital in 1976 and for all such patients in non-psychiatric hospitals in England. This draws attention to the relatively short mean duration of stay of patients in the study hospital, and especially among medical admissions, and also points to the existence of a high bed occupancy rate, particularly in the surgical wards.

Table 1 Indicators of activity: the study hospital and all non-psychiatric hospitals in England, 1976

Indicators of activity	Study hospital (1)	All non-psychiatric hospitals (2)
Mean lengths of stay (days)		
General medicine	10.1	12.2
General surgery	8.0	8.6
Discharges and deaths per available bed		
General medicine	30.6	25.3
General surgery	42.2	45.8
Bed occupancy rate*		
General medicine	84.3	84.7
General surgery	91.2	77.6

(1) Based on SH3 returns

(2) DHSS, 1977 (Table 4.8)

* Calculated as $\frac{\text{Average occupied beds daily}}{\text{Average available beds daily}} \times 100$

III METHODS

The study consists of a review of hospital use among a consecutive series of patients aged 65 years and over admitted to the general medical and general surgical wards of a district general hospital, together with follow-up interviews with as many as possible of this same group of patients shortly after their discharge from the study wards. The hospital review was conducted among all patients aged 65 years and over admitted under the six consultants involved in the study during a nineteen-week period during March-July, 1976, while the follow-up interviews were completed by early September of the same year.

Design of the review

The design of a hospital review will necessarily vary according to the purpose of the review, its official standing and the amount of resources available. However, it is useful to consider the three main features of a review, namely the timing, the personnel undertaking the review and the criteria used in assessing the patient's need for and use of hospital in-patient care.

With regard to the timing of a review a distinction may be made between retrospective reviews that are completed after the patient has been discharged from hospital and concurrent reviews that are carried out while the patient is in hospital. Concurrent reviews may be conducted on one particular day among all patients in a particular specialty or ward, irrespective of the patient's individual length of stay, or they may be conducted at a specific point (or points) during an individual patient's stay. Most ad hoc studies have used the former method, being concerned with identifying the total number of patients who could be regarded as inappropriate users of hospital in-patient care (e.g. MacPhail and Bradshaw, 1967; Butler and Pearson, 1970; Loudon, 1970; Chant et al., 1975). Formal utilisation reviews on the other hand have generally specified points during an individual patient's stay at which a review should be carried out. The approach adopted in the present study was that of a concurrent review carried out at different points during the individual patient's hospital stay. It was hoped that completing the review during the patient's stay would serve to reduce the problems of recall and retrospective rationalisation. Also, the method of reviewing the patient's use of hospital in-patient care at different points during the individual patient's stay has the advantage of allowing the total number of bed days used by individual patients to be identified and the number of bed days involved in social admissions or discharge delay.

The personnel carrying out a review may consist of one physician acting independently, or a team either made up entirely of physicians or of a mix of physicians and other personnel. There is also the question of whether the reviewers are drawn from the hospital in which they are conducting the review or from a different hospital. The approach adopted in the present study was that of having each patient reviewed by a single reviewer. Those undertaking the reviews were the junior hospital doctors attached to the firm responsible for the care of the study patient. The reason for asking the junior doctors to act as reviewers was due in part to financial considerations in undertaking the present study, and also because one of the main aims of the study was to develop a low-cost method of review which could easily be set up and carried out by the hospital doctors themselves. It was recognised that the method of having a fairly large number of people to act independently as reviewers would probably increase the element of reviewer variability and that the method of asking doctors to review the patients under their care might lead to an under-reporting of the amount of hospital use due to the patient's social circumstances. In order to try and reduce the element of reviewer variability and what might be perceived as the threatening nature of the review, regular discussions were held with the reviewers concerning the method of review and the type of judgements required. In particular it was emphasized that the aim of the review was merely to identify the factors which influenced their decisions to admit or retain a patient in hospital or to arrange their transfer to another hospital, and that no judgement was being made as to the appropriateness of their action. The possible effect on the recording of both the fairly large number of reviewers and their position in the study hospital is considered in Appendix A.

Perhaps the most important feature of the design of a review is that of the type of hospital use that is being reviewed and the criteria used in judging the patient's need for in-patient care. With regard to the type of hospital use that is being reviewed, it is possible to identify three main causes of what may be broadly termed as 'unnecessary' hospital use. These are the admission of a patient due to social or administrative factors, the delay in performing in-hospital procedures and delayed discharge arising from social and administrative factors. Previous studies have shown that delays in performing in-hospital procedures make the smallest contribution to the total 'unnecessary' hospital use, while the main component is that of discharge delay arising from social or administrative factors (Hunter, 1972; Zimmer, 1974). Thus the mandatory reviews carried out in the United States and many of the ad hoc reviews of hospital use have focused primarily on the question of discharge delay. The present study reviewed both the patient's admission and discharge from the

hospital wards. The existence of delays in performing in-hospital procedures was not recorded, except insofar as this was responsible for a delay in the patient's actual discharge date, as there was no reason to suppose that such delays were differentially distributed between married and non-married people.

Reviews of hospital use have employed a wide variety of criteria for assessing the appropriateness of patient placement. Some studies have largely relied on the reviewer's subjective assessment of whether the patient has 'medical needs at a hospital level' (e.g. Crombie and Cross, 1959; Mackintosh, McKeown and Garratt, 1961). The use of such broad criteria lends itself to considerable reviewer variability, with the results depending on the reviewer's understanding of 'medical need', and on whether such a judgement is made in terms of the health care facilities which exist at present, or on the assumption of optimal health care facilities (Zimmer, 1967, 1974). Another type of approach which provides more specific criteria for reviewing patient placement is to ask the reviewers to judge whether the patient's needs could have been met in a particular type (or types) of lower level facility (Loudon, 1970; Chant, McGinn, Triger and Wales, 1975). An alternative method involves the use of an index of care, with patients being classified in terms of their nursing needs into categories of care. These categories of care are then related to predetermined levels of care, which are regarded as being associated with different needs for facilities and services (Barr, 1964; Meredith, Anderson and Price, 1968). This latter approach overcomes the problem of requiring a judgement to be made as to the patient's need for hospital in-patient care but the problem remains that the judgements made on each patient's medical and nursing dependency are subject to individual variability. In order to try and overcome the problems of reviewer variability the method adopted under the Professional Standards Review Organisations set up in the United States, is that of specifying norms of care and the length of stay for each condition (Rudov, 1975; Goran et al, 1975). A similar type of approach has been employed in studies of hospital use based on the concept of the 'right stay' in hospital, although in this case the target date for discharge relates to the perceived needs of the individual patient rather than to a pre-determined norm relating to a particular condition (Simpson et al, 1977).

The aim of the present review was to identify the extent to which considerations of the patient's home circumstances had influenced admission and discharge decisions rather then trying to control physician behaviour. Thus instead of imposing a rigid standard it was decided to present the reviewers with a series of questions concerning the patient's hospital use. However such questions were more precisely defined than has been the case in some previous studies. With regard to admission the reviewer was asked:

Could have been treated in the out-patient department or by the general practitioner, if the patient's home circumstances were favourable?

In the case of discharge the reviewer was asked:

(i) whether the provisional discharge decision was delayed as a result of the patient's home circumstances, and

(ii) the reasons for any delay between the provisional and actual discharge date

In addition the reviewer was asked to record if the patient was discharged from the study wards to another hospital, and if so, to give the reasons for their transfer.

The design of the study and the method of review was developed after the author had spent several weeks talking with the medical and surgical staff in the study hospital and had accompanied some of the doctors on their ward rounds. The review form consisted of a five-page questionnaire which had mainly multiple choice questions and so was quick to complete (Appendix B). Both the number and type of questions asked on the review form were limited by the fact that the review was being conducted by the hospital personnel, for it was recognised that their participation was adding an extra task to their normal duties. When the pilot review form had been drawn up it was submitted together with details of the proposed study to the hospital ethical committee for approval.

Conduct of the review

The hospital review was piloted during a four-week period during June/July, 1975. The pilot study was based on all NHS patients aged 65 years and over admitted under two consultant physicians and one consultant surgeon, which gave a total of 64 patients. Some minor modifications to the review form were made as a result of the pilot study and a brief report of the pilot stage was prepared. Copies of the report of the pilot stage were distributed to the hospital staff in order to provide those involved in the study with a rapid feedback as to its progress.

The main study was planned to follow-on shortly after the pilot study and to last for six months. However, in view of the work-to-rule by the junior hospital doctors which began in October 1975, the start of the main study was postponed. The decision to postpone the main study was taken because although the junior doctors expressed their willingness to co-operate in the study, it was felt that the work-to-rule would probably affect the pattern of admission and discharge , particularly in general surgery. In addition, there

was the fear that the action might be escalated and so jeopardise the continuation of the study, The main study therefore began during the last week in March 1976, and ran until the end of July 1976. It was decided not to continue the study after the end of July as a number of the hospital staff involved were going on holiday. The main study therefore covered a nineteen-week period during the spring and early summer months.

The study population was distributed over seven wards, with the responsibility for ensuring that patients in the specified categories were included in the review resting with the ward sister and ward clerk in each of these wards. When a patient aged 65 years or over was admitted under one of the six consultants participating in the study, Part I of the review form, which required information similar to that recorded on the HAA form was completed by the ward clerk. The review form was then placed in the patient's case notes to await completion by the reviewer. Part II of the form concerning the reasons for the patient's admission was designed to be completed by the reviewer as soon as possible after the patient's first ward round; Part III at the time the provisional discharge date was set, and Part IV when the patient's discharge summary was written. The review form was then removed from the patient's case notes and placed in a folder on the ward trolley to await collection by the research staff.

The data collection was supervised by the author and a research assistant who went round the study wards two or three times a week to ensure that all new admissions had been included in the review and that the data collection was progressing smoothly. In addition, the arrival and departure of junior doctors due to their taking up a new post or going away on holiday or for a period of study-leave meant that it was necessary to explain the aims and methods of the study and seek the co-operation of a fairly large number of doctors during the study period, with a total of fourteen doctors acting as reviewers.

Follow-up interviews

Patients were not questioned at any time during their hospital stay. This was partly because it was thought that this would prove too great a strain for many patients and might be rather disruptive for the hospital staff and in addition it was hoped to gain some information on how patients managed after discharge. Patients were therefore interviewed 2-3 weeks after discharge from the study wards. A two-three week period after discharge was chosen for the follow-up interview because the pilot study indicated that this was not

so long after discharge as to cause problems of memory, but on the other hand ensured that most respondents had recovered sufficiently to be able to give an interview.

A letter was sent to all general practitioners informing them about the study and explaining that some of their patients might be asked for an interview. The actual distribution of these letters to the general practitioners was kindly organised by the Family Practitioner Committee who enclosed them with their regular mailings. The patients themselves were not notified in advance about the interview, except in the case of a fairly small number of people who lived 10 miles or so from the research unit. In the latter case it was hoped that a letter in advance explaining the purposes of the study and stating that an interviewer would call on the morning/afternoon of a certain day would perhaps help to ensure that the respondent would be in when the interviewer called. However, in general, it was thought best not to notify people in advance because elderly people tend to be worried by the thought of an unfamiliar event to take place in the future; and as the pilot study indicated, any fears tend to be allayed when they see a friendly person on the doorstep who is able personally to explain about the study and to answer any queries they may have. A further advantage of not notifying people and setting a date for the interview in advance was that this allowed the interviewers greater flexibility in their schedules. As elderly people who have recently been in hospital tend to be at home for most of the day, calling at a time when the respondent was at home generally posed few problems.

The interview schedule consisted of a mixture of structured and open-ended questions covering the respondent's household composition and the physical characteristics of their home, their health and leisure activities, social contacts, sources of assistance and care and their recent experience of hospitalisation. The schedule was piloted by the author and by an experienced interviewer with the names of people to be interviewed in the pilot stage being taken from the admissions book in the study wards. One of the main findings of the pilot study was that of the limited ability of elderly patients to recall past events, such as previous episodes of hospital in-patient care, which was therefore taken into account in designing the schedule used in the main study.

In the main study the interviews were administered by one of a team of five women interviewers who were specially trained for the study. An interviewers' manual was prepared for the training which took the form of two

days' office-based training plus practice interviews supervised by the research staff. Most of the interviews were carried out in the patient's usual home but a few were interviewed in a relative's home and eighteen people were interviewed in a medical institution, with most of these people having been discharged there from the study wards. In general, people were very happy to be interviewed, with many spontaneous remarks in praise of the hospital and the care they had received. However, as is usually the case, a few people gave the interview grudgingly but in only two instances was an interview refused.

After completing an interview the interviewer gave the respondent a letter which thanked him/her for co-operating in the study and briefly explained the purpose of the study. It was hoped that this might serve to reduce the possibility of any misunderstanding arising and provide an easy way for the respondent to explain about the interview to others who might enquire (Appendix B, page 141).

Study populations

During the nineteen-week period of the hospital study there were 437 admissions aged 65 years and over to the general medical and general surgical wards under one of the six consultants participating in the study. These admissions excluded the few patients who were admitted to another specialty and then subsequently transferred to the study wards.

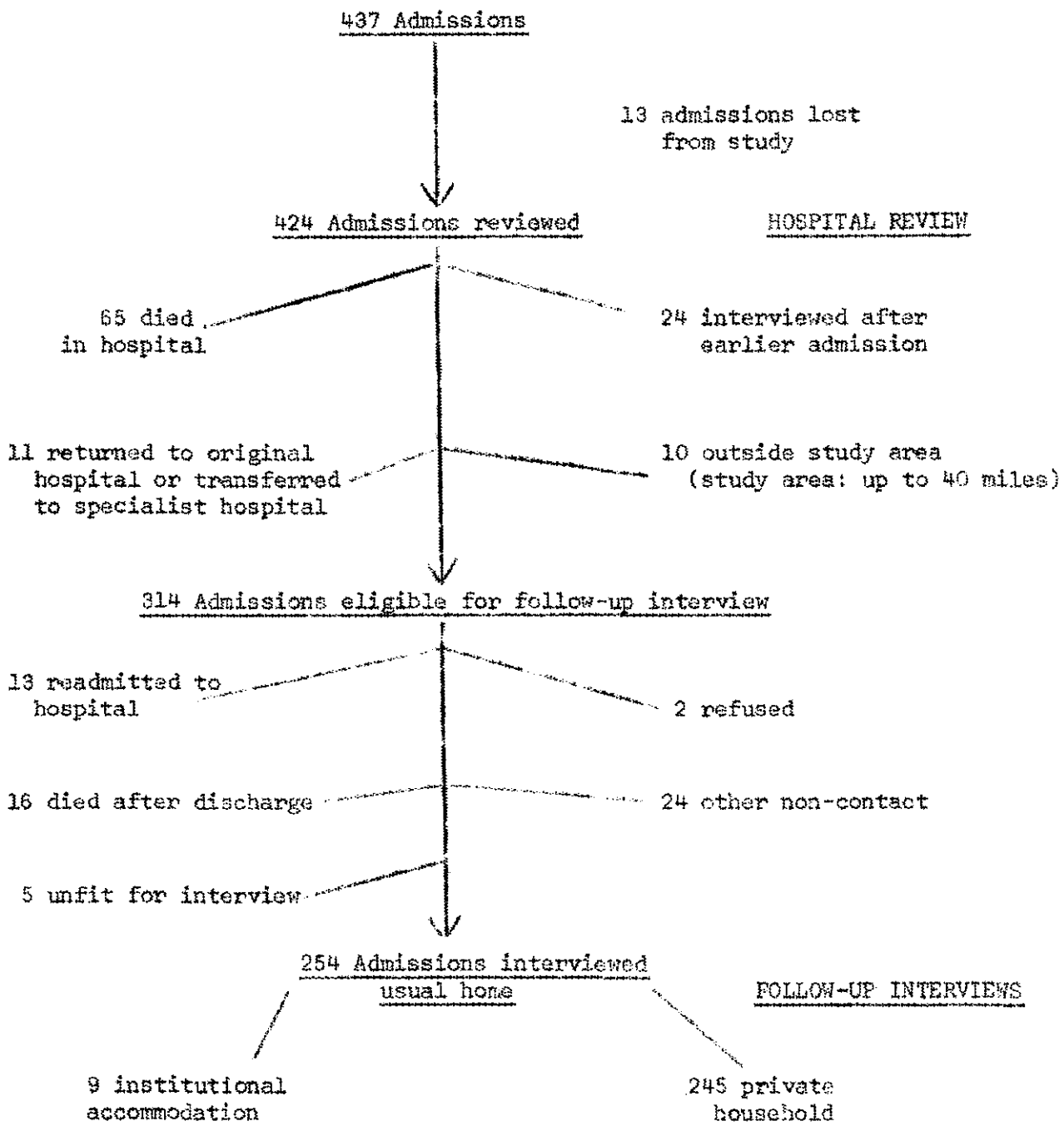
A total of 424 admissions were reviewed and consisted of 327 medical reviews and 97 surgical reviews. It appeared that 13 admissions were lost from the review, due either to their not having a review form placed in their case notes, or from the form being misplaced or not completed for other reasons. There was therefore a 97 per cent completion rate, although 12 per cent of the reviews undertaken had some information omitted. The 424 reviews were based on 407 patients, as seventeen people were admitted more than once to the study wards. People who were admitted more than once to the study wards were reviewed on each occasion but interviewed only once.

In the follow-up study 254 people were successfully interviewed, and comprised 58 per cent of the admissions and 60 per cent of the patients reviewed in the hospital study. This difference arose because those who were admitted more than once to the study were interviewed on only one occasion. Other groups who were not followed-up were those who died in the study wards, those who were discharged to a psychiatric or specialist hospital and those who lived too far away to be interviewed. As a result of these various factors a total of 26 per cent of all admissions were not followed up.

Of the patients followed up, 81 per cent were successfully interviewed. As figure 2 shows, the main reasons for not achieving a follow-up interview were that the patient had been re-admitted to hospital or had died after leaving hospital. In the case of what were classified as 'other non-contacts', the reason for the patient not being at their usual home was unclear but it is likely that in many cases this was because the patient had gone to stay in a relative's home.

Figure 2

Numbers involved in the hospital and follow-up studies



IV PRESENTATION OF THE FINDINGS

The results of the study are presented in two parts. The first part, presented in sections 1-5, gives the findings from the hospital review concerning the rates and type of hospital use of the married and non-married people admitted to the study wards. Section 1 provides information on the demographic characteristics and route of admission of the 424 admissions to the study wards, while section 2 presents information on their length of stay and place of discharge from the study wards. The following section is concerned with the patients' use of beds in the study wards and presents the hospital doctors' judgements concerning the factors influencing their admission, length of stay and place of discharge. Section 4 gives information on transfers and multiple admissions, while section 5 concludes with a consideration of the pattern of hospital use in the study wards revealed by the present review.

The second part of the findings is presented in sections 6-9 and is chiefly concerned with the question of the causes of possible variations in hospital use by married and non-married people. These sections are mainly based on information from the follow-up interviews, and particularly on information gained from the 245 people interviewed who usually live in a private household. Section 6 presents information on the marital history and self-perceived health of those interviewed and then looks at two factors which may affect health, namely the loss of a spouse and feelings of loneliness. Sections 7 and 8 focus on aspects of the home circumstances of married and non-married people which may affect their needs for social care, and especially that of their perceived availability of assistance and care and the amenities available in their homes. Section 9 looks at people's actual experience of hospitalisation and relates the information from the hospital review with that obtained from the follow-up interviews.

The patients are referred to by initials. These have been altered so as to ensure the anonymity of the study patients.

V THE USE OF HOSPITAL BEDS

1. ENTRY INTO THE STUDY WARDS

This section first describes the demographic characteristics of patients admitted to the study wards and provides an estimate of the relative admission rates of different sex and marital groups. Information is then given on people's entry into the study wards in terms of their route and reason for admission.

Characteristics of admissions

All patients in the study were at least 65 years of age, while about one-third were aged 75 years and over. As might be expected, almost all these people had retired from full-time employment, although a small number still held part-time jobs and a large proportion of the women had never been in gainful employment (see Tables C25, C26).

An examination of the marital distribution of the study patients showed that overall 59 per cent were married, 9 per cent single and 28 per cent widowed, with the proportion of widowed people being greater among those aged 75 years and over (43 per cent) than in the younger age band (20 per cent). Only eight patients were recorded as divorced but it appeared that in some cases divorced people had been recorded as widowed both on the review form and on the HIPE return (see page 136). The proportion of men among the study patients was greater than the proportion of women and especially among those aged 75 years and over. Thus, overall, 56 per cent of the study patients were men and 59 per cent of those aged 75 years and over. As in the population as a whole, a larger proportion of the male than female patients were married and a smaller proportion were single or widowed, with only 44 per cent of the women in the study population being married compared with 71 per cent of the men.

The higher proportion of men than women patients was found among both the medical and surgical patients reviewed. There was, however, some difference in the age and marital distribution of patients in these two specialties, with the surgical admissions having a rather older age distribution and including a higher proportion of non-married, and especially widowed, patients (Table C1).

Table 2 Sex, age and marital status of study patients

Sex and age	Married	Single	Widowed	Div/sep.	Not reported	Total
Men						
65 - 74	122(74)	9(5)	23(14)	6(4)	3(2)	163(100)
75 & over	46(62)	2(3)	21(29)	2(3)	3(4)	74(100)
All men	168(71)	11(5)	44(19)	8(3)	6(2)	237(100)
Women						
65 - 74	70(60)	13(11)	32(27)	-	2(2)	117(100)
75 & over	12(17)	16(23)	41(59)	-	1	70(100)
All women	82(44)	29(15)	73(39)	-	3(1)	187(100)
Men and women						
65 - 74	192(69)	22(8)	55(20)	6(2)	5(2)	280(100)
75 & over	58(40)	18(12)	62(43)	2(1)	4(2)	144(100)
Both sexes	250(59)	40(9)	117(28)	8(2)	9(2)	424(100)

The numbers in the study were rather small for precise comparisons to be made between the characteristics of the study population and those of the community as a whole. However, some indication of the relative rates of admission of different groups in the population was gained by comparing the characteristics of patients in the four local authority areas from which 69 per cent of the study patients were drawn with the population in these districts. This indicated that men were over-represented among patients admitted to the study wards. Altogether 53 per cent of the patients from these four local authority areas were men but only 37 per cent of the elderly people in the community (Table C4). As Table 3 shows, the relatively high rate of admission among men was not confined to a particular age or marital group. The higher rate of admission of men than women which occurred in the study wards appears to be a characteristic pattern among non-psychiatric admissions as a whole. For example, the analysis of HIPE data for all non-psychiatric

hospitals in England and Wales for the years 1964-1970 and 1973 showed that in each year analysed the admission rate was higher for elderly men than for elderly women and that this difference held for both married and non-married people in each of the broad age groups, 65 - 74 years and 75 years and over (Table C5). The higher admission rate of men than women in each marital group may be due in part to differences in the incidence and nature of morbidity of men and women and/or to differences in what is perceived to be their social need for in-patient care. However, another important factor is that of possible differences in the supply of beds for men and women patients and in their pattern of bed use. In the present study the proportion of beds allocated to men and women surgical patients was almost identical, with the larger number of male admissions being mainly due to the shorter duration of stay of men than women patients in the age group 75 years and over. However some of the medical wards were mixed sex wards which allows a more flexible distribution between men and women patients. Thus, it is possible that in the medical wards a larger proportion of the beds may have been occupied by male patients.

Table 3 Admission rate per 10,000 population by age, sex and marital state for study patients admitted from four local authority areas*

Sex and age	Admission rate per 10,000 popl.		
	married	Non-married	All categories
Men			
65 - 74 yrs.	172	290	191
75 and over	147	168	163
Total	165	227	182
Women			
65 - 74 yrs.	128	64	100
75 and over	69	101	82
Total	95	81	93

* Population figures were taken from Census, 1971 County Report (Kent) Table 8 (see Table C4)

The similarity in the pattern of admissions between men and women and between married and non-married people in the study population and in the HIPE data is remarkable, particularly in view of the fact that the study is based on admissions to an acute hospital and is confined to two specialties. However, such data can say nothing about the extent to which the higher rate of admission is due to a greater incidence or severity of conditions requiring hospital in-patient care, or to non-married people being more likely to be admitted to hospital in-patient care due to their less favourable home circumstances.

Route and reason for admission

Table 4 shows the route of admission to the study wards recorded on the patients' review forms. No distinction has been made in this table between admissions through the casualty department which were referred by the general practitioner and other casualty admissions, as this information was not always available to the ward clerk who was responsible for entering this on the review form. In addition this category includes some people whose admission was arranged directly with the medical firm by the general practitioner. Only six admissions were recorded as having resulted from a domiciliary consultation, but interviews with the patients suggests that such consultations were under-recorded on the review form, with some patients being classified as admitted through the casualty department rather than as having a domiciliary consultation.

Table 4 Route of admission of study patients to the medical and surgical wards

Route of Admission	General medicine	General surgery
Via casualty department	263(80)	33(34)
Directly from out-patient department	22(7)	1(1)
Waiting list	10(3)	52(53)
Regular admission	12(4)	-
Domiciliary consultation	5(1)	1(1)
From another hospital	10(3)	6(6)
Other	3(1)	4(4)
No answer	2(1)	-
Total	327(100)	97(100)

The information recorded on the patient's route of admission points to two important differences between married and non-married people. One difference is in the proportions admitted for 'regular therapy', which consisted mainly of people admitted regularly for blood transfusions and cytotoxic therapy. The twelve admissions for regular therapy related to eight patients of whom all but one was married. Another difference is in the large proportion of non-married people among those who were admitted to the study wards from another hospital. Altogether twelve people were both admitted from and transferred to another hospital, with all but one of these people being admitted from a geriatric or psychiatric hospital. Of the ten people in this group whose marital status was recorded, three were married and seven were single or widowed, while of the four people who were admitted from another hospital but who went home on leaving the study wards, one was married and three were single or widowed. The relatively large proportion of non-married people who were admitted from or transferred to another hospital probably reflects the greater number of single and widowed people in long-stay hospitals and institutions.

Table 5 Reason for admission of study patients to the medical and surgical wards

Main reason for admission	General medicine	General surgery
Surgery	2(1)	77(79)
Diagnostic reasons	127(39)	10(10)
Therapy	183(56)	5(5)
Observation	4(1)	1(1)
Nursing care	7(2)	3(3)
No answer	4(1)	1(1)
Total	327(100)	97(100)

The majority of medical patients were admitted for therapy or for diagnostic reasons, with only seven patients being recorded as admitted for nursing care and four for observation. In the case of surgical admissions, four-fifths of the patients were admitted for surgical procedures and only three for nursing care. Altogether just over four-fifths of the medical admissions and one-fifth of the surgical admissions were classified as emergency admissions.

No information was obtained as to the possible diagnosis at the time of the patient's admission, as the pilot study indicated that this was likely to be

omitted by the reviewer except in cases where the diagnosis was fairly certain. However, information on the principal diagnosis was collected for all live discharges. This showed the expected pattern, with the main category of conditions among medical discharges being that of diseases of the circulatory system, particularly myocardial infarction, followed by neoplasms and diseases of the respiratory and digestive systems. The main category of conditions among the surgical discharges was that of diseases of the digestive system, especially hernias and diseases of the gall bladder (Table C6).

The number of cases was rather small for many comparisons to be made between married and non-married people in terms of their reason for admission to the study wards. However, it was noted that of the ten people admitted for nursing care, eight were married and only two were widowed.

Summary

Information on admissions to the study wards indicates that the rate of admission was higher for men than for women in each broad age group. Among men the rate was higher for the non-married than for the married but there was no consistent difference between married and non-married women. The main differences identified with regard to the reason for admission of married and non-married people were that non-married people were rather under-represented among those who were admitted for regular therapy and for nursing care. In contrast, those who were transferred to the study wards from another hospital consisted mainly of single and widowed people.

2. LENGTH OF STAY AND PLACE OF DISCHARGE

This section first looks at the length of time patients spent in the study wards and at where they went on leaving the study wards. The patients' mean length of stay in the study wards is then related to their type and place of discharge.

Length of stay in study wards

The mean length of stay in the study hospital appeared to be fairly short and especially for medical admissions, with the mean stay recorded on the SH3 returns for medical admissions of all ages being 10.1 days and 8.0 days for surgical admissions, compared with means of 12.2 days and 8.6 days in England as a whole (DHSS, 1977b). The mean stay for the study population was just over 11 days for both specialties. This is rather higher than the mean stay for patients of all ages, due to the tendency for length of stay to rise with increasing age. However, in view of the age of the study population their length of stay in the study wards was fairly short, and compares with a mean stay for medical admissions in England and Wales, 1974, of 16.8 days for those aged 65-74 and 20.5 days for the age group 75 years and over, with the figures being 13.4 and 16.0 days respectively for surgical admissions aged 65-74 and 75 years and over (DHSS, 1978).

An examination of the distribution of lengths of stay of the study patients shows that nearly one-quarter of both the medical and surgical admissions spent four days or less in the study wards. This group included all those admitted for therapy and a fairly high proportion of those who died in the study wards. At the other end of the distribution were 20 admissions who spent 30 days or more in the study wards, which is conventionally regarded as constituting a long-stay. Twelve of these people spent between 30 and 40 days in the study wards, while six spent over 40 days and included two people with stays of 60 days or more. Thus it appears that the fairly low average length of stay of the study patients was associated with a high proportion of stays of less than 10 days duration (49 per cent of admissions) and only a very small number of admissions coming into the long-stay category (4 per cent).

Table 6 Lengths of stay of married and non-married people in the study

Number of days in study wards	General medicine				General surgery			
	Married	Non-married	Not known	All cats.	Married	Non-married	Not known	All cats.
1-4	52(26)	20(17)	2	74(23)	12(25)	11(24)	-	23(24)
5-9	49(24)	31(26)	3	83(25)	12(25)	17(37)	2	31(32)
10-19	75(37)	47(39)	1	123(37)	11(23)	12(26)	1	24(25)
20-29	16(8)	16(13)	-	32(10)	10(21)	4(9)	-	14(14)
30 and over	10(5)	5(4)	-	15(5)	3(6)	2(4)	-	5(5)
Total	202(100)	119(100)	6	327(100)	48(100)	46(100)	3	97(100)
Mean stay (days)	11.2	12.4		11.5	12.6	9.8		11.3

Overall, the mean stay in the medical wards was rather higher for non-married than for married people. However a breakdown of these figures showed that this difference only held for men. For women patients in the medical wards and among both men and women in the surgical wards, the mean duration of stay was rather higher for married than for non-married people. Also as Table 7 shows, there was no consistent increase in the mean length of stay of married or non-married people between the age-groups 65-74 and 75 years and over. These findings are in marked contrast to the findings from the analysis of the national HIPE data for all non-psychiatric hospitals, which showed that the length of stay was higher for non-married than for married people and that this held for both men and women and in each broad age group. However, the findings concerning the length of stay of admissions during the nineteen-week study period were broadly similar to those for the study hospital for the year as a whole obtained from the HAA data (Table C7). This indicates that the absence of the expected pattern probably reflects particular characteristics of the study hospital rather than being due to particular features of the study period.

Table 7 Mean duration of stay of study patients in the medical and surgical wards

Sex and marital group	General medicine			General surgery		
	65-74	75 and over	All ages	65-74	75 and over	All ages
Men						
Married	10.2	9.5	10.0	13.8	9.8	12.6
Non-married	11.9	14.4	12.9	9.9	8.0	9.1
Women						
Married	12.9	16.9	13.3	12.5	12.2	12.4
Non-married	11.0	13.3	12.1	10.6	10.5	10.5
Men and women						
Married	11.3	10.8	11.2	13.5	10.5	12.6
Non-married	11.4	13.8	12.4	10.2	9.6	9.8

* These figures exclude the nine people for whom no marital status was recorded

Type of place of discharge

Those discharged alive comprised 83 per cent of medical admissions to the study and 90 per cent of surgical admissions. There did not appear to be any difference in the overall proportion of live discharges among married and non-married people. However, a rather smaller proportion of men than women were discharged alive (82 per cent compared with 89 per cent of women), despite the younger age distribution of male admissions.

Table 8 Type and place of discharge of study patients from the medical and surgical wards

Specialty and type of discharge	Married	Non-married	Not known	All cats.
General medicine				
Died	36(18)	19(16)	-	55(17)
Other discharges:				
medical institution	13(6)	11(9)	3	27(8)
usual home/other private household	152(75)	87(73)	3	242(74)
other	1(-)	2(2)	-	3(1)
Total	202(100)	119(100)	6	327(100)
General surgery				
Died	6(12)	4(9)	-	10(10)
Other discharges:				
medical institution	8(17)	22(48)	1	31(32)
usual home/other private household	34(71)	20(43)	2	56(58)
other	-	-	-	-
Total	48(100)	46(100)	3	97(100)

The majority of the 272 medical and the 87 surgical admissions who were discharged live from the study wards went straight to their own home or to that of a friend or relative. However, 23 medical admissions and 31 surgical admissions were discharged to another hospital. Some of these people were either transferred to a specialist hospital or returned to their original hospital, but most were discharged to another hospital for rehabilitation or nursing care. The proportion of surgery patients who were discharged to another hospital for rehabilitation or nursing care was much higher than among medical patients and formed 40 per cent of the live discharges from the surgical wards, compared with 6 per cent from the medical wards. The high proportion of surgical patients who were discharged to another hospital for rehabilitation or nursing care reflects the policy on the part of the surgery firm of discharging patients to another hospital in order to relieve the pressure on beds and

increase the throughput in the district general hospital. These patients are mainly transferred to a pre-convalescent bed in a hospital classified as a chest hospital. Here they remain under the overall supervision of the surgical firm in the district general hospital, with regular ward rounds being made by a senior member of the firm. This hospital has a total of 30 beds, of which ten are usually occupied by surgical patients transferred from the study hospital, with the majority of these being elderly patients under the consultant surgeon participating in the study.

Table 9 Study patients discharged to another medical institution by place of discharge

Place of discharge	General medicine				General surgery			
	Married	Non-married	Not known	All cats.	Married	Non-married	Not known	All cats.
Specialist or original hospital	3	2	3	8	-	3	-	3
Another hospital	8	7	-	15	8	19	1	28
Nursing home	2	2	-	4	-	-	-	-
All medical institutions *	13(8)	11(11)	3	27(10)	8(19)	22(52)	1	31(36)
All live discharges	166(100)	100(100)	6	272(100)	42(100)	42(100)	3	87(100)

* Percentages are based on number of live discharges in each marital group

The proportions of married and non-married medical admissions who were discharged from the study wards to another medical institution was fairly similar. However, three times as many non-married than married surgical admissions were discharged to another medical institution. This appeared to be associated with a larger proportion of non-married surgical patients requiring skilled nursing care at the time of their discharge from the study wards, which may in part reflect the older age distribution of non-married people.

As Table 10 indicates, there was a marked variation in the length of time the study patients spent in the medical and surgical wards by place of discharge. As a group, those who had the shortest average stay were those who were admitted from and returned to their original hospital, or who were transferred to a

specialist hospital. The longest average stays on the other hand occurred among patients who were discharged to another hospital for rehabilitation or nursing care.

Table 10 Mean length of stay of study patients in the medical and surgical wards by type and place of discharge

Type of discharge	General medicine		General surgery	
	No. admissions	Mean stay (days)	No. admissions	Mean stay (days)
Died	55	11.1	10	11.7
Other discharges:				
(1) Specialist/original hospital	8	8.5	3	6.0
(2) Another hospital	15	18.7	28	11.6
(3) Nursing home	4	10.7	-	-
(4) Usual home/other private household	242	11.1	56	9.5
(5) Other	3	25.0	-	-
All live discharges	272	11.6	87	10.1
Total	327	11.5	97	11.3

Summary

This section has drawn attention to the fairly short mean length of stay by patients in the study wards and has shown how length of stay varies by place of discharge. In contrast to the pattern of a higher mean length of stay among non-married compared with married people revealed by the analysis of HIPE data, the mean length of stay in the study population appeared to be higher for married people, except in the case of men admitted to the medical wards. Possible explanations of these findings will be considered in section 5.

3. REVIEW OF ADMISSION AND DISCHARGE

This section is concerned with the patients' use of beds in the study wards and presents the hospital doctors' judgements concerning the patients' need for admission and length of stay. In addition it looks at the factors which influenced the hospital doctor's decision as to the patient's place of discharge.

Review of admission

The reason for the patient's admission to the study wards was examined by asking the hospital doctors to record shortly after the patient's admission whether, in their judgement, the patient could have been treated in the outpatient department or by the general practitioner if his/her home circumstances were favourable, and if so, to record the reasons for the patient's admission. As a result 15 patients were recorded as not requiring hospital in-patient care, of whom 12 were admitted to the medical wards (4 per cent of admissions) and 3 to the surgical wards (3 per cent of admissions).

Table 11 Reason for admission and treatment required by people admitted for conditions which could have been treated in the outpatient department or by the general practitioner

Reason for admission	Treatment required	
	Diagnosis/ therapy	Nursing care
Medical condition changed	1	-
Home circumstances/required terminal care	2	7
GP request - reason not stated	3	-
No reason given	2	-
Total	8	7

As Table 11 indicates, the question concerning the patient's need for admission to the study wards was interpreted fairly broadly and showed that a range of situations and circumstances had resulted in these 15 people being admitted. One patient was recorded as not requiring admission as his condition had changed whilst he was on the waiting list, while three patients were recorded as being admitted to the study wards due to the general practitioner's request, or because, "G.P. not willing to treat". No further information was given but

it is possible that the G.P.'s request may have been prompted by his knowledge of the patient's home circumstances. This possibility is supported by data from a follow-up interview with Mrs. D.H. who was recorded as being admitted because, "G.P. not willing to treat". Mrs. D.H., a widowed woman aged 73 years was admitted for and diagnosed on discharge as suffering from migraine. She lived on her own and did not have any relatives within easy reach. As she stated in reply to a question about whether there is someone whom she could rely on to help look after her when she is ill in bed at home:

> "My neighbour would do what she could in an emergency but I haven't anyone down here."

Of the other nine people for whom a reason for their admission was given, three appeared to have been admitted for terminal care and died after spending a few days in the study wards, while two people appeared to have been admitted because they were sent in late at night. Mr. A.C. a married man aged 78 years was, "Sent in late at night at a time when adequate services to look after him could not be mobilised", while Mrs. W.P., a widowed woman aged 78 years was, "Sent in by G.P. in evening. Admitted because there was some doubt as to the patient's ability to manage at home." In cases where the home circumstances of the patient resulting in their being admitted was recorded, the reason given for their admission was that the patient lived alone or that their relatives were unable to provide the necessary care. In two cases, that of Mrs. P.B. and Mrs. A.S., their admission occurred because their spouse, on whom they were dependent for assistance and care, needed to enter hospital. Mrs. P.B. walked with a zimmer and stated in the follow-up interview, "I can peel vegetables and do sitting-down jobs but my husband does most things." Mrs. A.S. was even more severely restricted in her activities, being unable to get around indoors by herself, get in or out of bed or to the W.C. by herself, and was unable to wash her hands and face or perform other self-care tasks.

Although there appeared to be considerable variation in the circumstances of those recorded as being admitted to the study wards for conditions which could have been treated by the G.P. or in the outpatient department, many of these people were recorded as requiring nursing care and accounted for nine of the ten people in the study wards who were admitted for nursing care. In addition, most were recorded as being referred by their general practitioner and, as already noted, in three instances the reason for the patient's admission was actually stated to be that the G.P. had requested it. This points to the important role of the general practitioner in acting as the initial decision-maker and gatekeeper and serving to select and channel people for in-patient care. Although the formal role of the general practitioner

goes no further than referring a patient for in-patient care, it was felt by the hospital doctors that in some instances general practitioners were employing strategies to ensure that a particular patient gained admission to hospital. On the one hand this appeared to take the form of a direct demand for hospital admission for a particular patient, while the hospital doctors also pointed to instances in which they felt that the possible diagnosis recorded by the G.P. had probably been influenced by the desire to secure the patient's admission. It is also possible that sending a patient in at night may in some instances occur because it is known that the patient is more likely to be admitted in the evening when it is more difficult to arrange alternative care. Evidence of differences between general practitioners and hospital doctors in their perception of the patient's need for acute hospital care has been noted in other studies and possibly reflects differences in their interests and their knowledge of both the patient's home circumstances and of the underlying medical condition (Torrance et al., 1972). There are also known to be considerable variations between G.Ps. in their rates and pattern of referral, although the reasons for such differences are at present unclear (Ashford and Pearson, 1970).

Table 12 Marital status of patients recorded as being admitted for conditions which could have been treated in the outpatient department or by the general practitioner

Reason for admission	General medicine			General surgery		
	Married	Non-married	All cats.	Married	Non-married	All cats.
Medical condition changed	-	-	-	1	-	1
Home circumstances/required terminal care	4	3	7	1	1	2
G.P. request - reason not stated	2	1	3	-	-	-
No reason given	2	-	2	-	-	-
Total	8	4	12	2	1	3

The present review of hospital admissions did not provide any evidence in support of the view that non-married people were more likely than married people to be admitted to hospital because of their home circumstances, for of the fifteen people who were recorded as having conditions which did not require hospital admission, ten were married, four were widowed and one separated. Even among the six people who were stated to have been admitted because their

home circumstances were unclear or unfavourable, three were married and three were non-married. In addition, those who were admitted for conditions which could have been treated elsewhere appeared to be fairly evenly divided between men and women. As a group these people appeared to be fairly advanced in age, with seven being aged 75 years or over.

Discharge delay

Questions concerning delay in discharge were divided into two parts. Firstly, at around the time the patient's provisional discharge date was set the doctor was asked to record whether the date for discharge was delayed due to a consideration of the patient's home circumstances. Secondly, when the patient was actually discharged they were asked to record whether there was any delay, for whatever reason, between the patient's provisional discharge date and their actual discharge. These questions were designed to be completed for all patients who were discharged alive and who were neither transferred to a specialist hospital nor returned to a hospital from which they had been admitted. However, one person who was recorded as having been admitted for social reasons was also recorded as having his discharge from the study wards delayed for administrative reasons. As the total length of stay in the study wards of patients whose admission was recorded as being due to social or administrative factors was generally regarded as being unnecessary in terms of their clinical condition, this person was not included in the present analysis in the category of delayed discharge. Thus, the analysis of delayed discharge was based on the reviews of 255 medical and 81 surgical admissions, who comprised 78 and 83 per cent respectively of the total number of admissions to these specialties (Table C8).

A total of 31 patients were recorded as being involved in some kind of discharge delay, with six patients experiencing a delay in their discharge for medical reasons, due mainly to complications developing or to a less favourable response to treatment than expected, while 24 patients were delayed for social and/or administrative reasons. What were classified as administrative delays consisted of delays in the patient's actual discharge from the study ward due for example, to difficulties in arranging transport or alternative accommodation or to awaiting the results of tests. Of course, in some cases people were delayed in the study wards for more than one reason, as when a patient experienced a delay in the setting of their provisional discharge date due to their medical condition, or their home circumstances, and this was followed by a delay in their actual discharge due to difficulties in organising social services at home or in

arranging alternative accommodation. In such cases the patients were classified as being delayed in hospital due to the original cause of delay.

Table 13 Patients whose discharge was delayed by main reason for delay(1)

Main reason for discharge delay	General medicine			General surgery		
	Married	Non-married	All cats.	Married	Non married	All cats.
Medical	2	2	4	2	-	2
Home circumstances	7	7	14	-	1	1
Administrative	6	2	8	1	-	1
No answer	-	-	-	1	-	1
Total	15	11	26	4	1	5

(1) Excludes 4 people whose discharge was reviewed but no marital status was recorded. None of these people were recorded as delayed in the study wards

There appeared to be little difference in the proportions of married and non-married people whose discharge was delayed because of their home circumstances or for administrative reasons, with 14 married, 8 widowed and 2 single people coming into these categories. Within this group those whose delayed discharge appeared to be primarily due to their home circumstances were also fairly evenly divided between married and non-married people, with 7 being married and 8 non-married people. The seven married people who were delayed because of their home circumstances were all married men whose unfavourable home circumstances were due to the fact that their spouse was unable to provide the necessary assistance and care due to their own health or to their other commitments. The eight non-married people whose discharge was delayed due to their home circumstances appeared as a group to be fairly advanced in age, with only one person being under 73 years of age and the eldest being 93 years of age. All but one of these people lived alone and this appeared to be the main factor responsible for their being retained in the study wards.

Bed use in the study wards

As Table 14 shows, about two-thirds of those who were admitted or whose discharge was delayed due to their home circumstances or for administrative reasons, spent four days or less in the study wards from this cause. One group who spent a particularly small number of extra days in the study wards were those

whose discharge was delayed for administrative reasons, with seven of the nine people in this category spending only one additional day in the study ward. The only person who spent more than 20 additional days in the study wards and who came into the category of what is traditionally regarded as a 'bed blocker' was Mrs. D.T., a 75-year old married women diagnosed as suffering from senile dementia. Mrs. D.T. was recorded as spending 54 days in the study wards due to discharge delay out of a total stay of 60 days. The problem was recorded as being that of finding somewhere suitable for her to be discharged to in view of her condition. Eventually she was discharged to what was described by the reviewing physician as 'lodgings'. Mrs. D.T. was classified as being delayed in the study wards for administrative reasons, as there was no indication on the review form that she could have returned home had her home situation been different.

Table 14 Number of days spent in the medical and surgical wards by study patients whose admission or discharge was influenced by social/administrative factors

No.of days	Admission due(1) to social/admin. factors	Discharge delay due(2) to social/admin. factors	All patients occupying beds for social/admin.reasons
1	2	7	9(23)
2-4	4	9	13(33)
5-9	5	4	9(23)
10-14	3	2	5(13)
15-19	1	1	2(5)
20 and over	-	1	1(3)
No. patients	15	24	39(100)
No. bed days	93	155	248

(1) This represents the total number of days the patient spent in the study wards

(2) This represents the additional number of days spent in the study wards due to discharge delay

An examination of the total length of stay in the study wards of patients who were admitted or delayed due to social or administrative factors showed that their total length of stay in the study wards was fairly short, with only six of these patients spending 20 days or more in the study wards. This is in line

with the findings of a study by Zimmer, which showed that although attention has traditionally focused on the long-stay patient, a large proportion of what he termed 'misutilisers' are found among people spending a fairly small number of days in a particular facility (Zimmer, 1974).

Table 15 Total length of stay in the medical and surgical wards of study patients recorded as admitted or delayed due to social or administrative factors

No. of days in study wards	General Medicine	General surgery
1-4	7(9)	2(9)
5-9	5(6)	2(9)
10-19	16(13)	1(4)
20-29	2(6)	1(4)
30 and over	3(20)	- -

Percentages are based on the total number of patients in each length of stay category

The results of the review of admission and discharge in terms of the number of admissions and bed days occupied due to the patient's home circumstances or for administrative reasons are summarised in Table 16. As this table shows, 10 per cent of the medical admissions and 5 per cent of the surgical admissions were recorded as being either admitted for conditions which could have been treated in the outpatient department or by the general practitioner, or were delayed in the study wards for social or administrative reasons, with the proportion of bed days occupied from these causes being 6 and 1 per cent respectively. An examination of the distribution of such use between marital groups showed that 11 per cent of married admissions were admitted or retained in the medical wards for social or administrative reasons and 6 per cent of surgical admissions, with such patients accounting for 7 per cent of the bed days occupied by married patients in the medical wards and 1 per cent in the surgical wards. The figures were very similar for non-married people. Overall 9 per cent of non-married admissions being admitted or retained in the medical wards for social or administrative reasons and 4 per cent in the surgical wards, with such patients accounting for 5 per cent of the bed days occupied by non-married patients in the medical wards and 2 per cent in the surgical wards.

Table 16 Study patients admitted and bed days occupied due to the patient's home circumstances or for administrative reasons

Specialty and bed use	Admissions	Bed days(2)
General Medicine		
Admission due to home circumstances/administrative factors (1)	12(4)	84(2)
Discharge delayed due to home circumstances/administrative factors	22(6)	148(4)
Neither of above	293(90)	3543(94)
All categories	327(100)	3775(100)
General Surgery		
Admission due to home circumstances/administrative factors (1)	3(3)	9)
Discharge delayed due to home circumstances/administrative factors	2(2)	7) (1)
Neither of above	92(95)	1083(99)
All categories	97(100)	1099(100)

(1) Patients who came into this category are not included among those whose discharge was delayed.

(2) This is based on the total number of days spent in the study wards by those whose admission was recorded as being due to their home circumstances or to administrative factors and the number of additional days spent in the study wards by those whose discharge was delayed.

Factors affecting place of discharge

As part of the review of discharge the hospital doctors were asked to record the level of care required by all patients discharged live from the study wards who were neither returning to their original hospital nor being

transferred to a specialist hospital. This group formed 81 per cent of the medical and 87 per cent of the surgical admissions. A total of eleven medical and four surgical patients in this category who were discharged to another hospital were recorded as requiring only non-skilled care at the time of their discharge from the study wards. Why then were these people discharged to another medical institution? It appeared that in the case of eight married people this mainly occurred because their spouse was unable to provide the necessary assistance and care due to their own health or other commitments. The seven non-married people who were discharged to another medical institution for non-skilled care were mostly people of fairly advanced age. Five of these people lived alone, and this was given as the reason responsible for their place of discharge in the three cases where this information was provided. The two non-married people who lived with others were a widowed man who spent five days in another hospital because, "Changes needed at home of friend where he lives", and Mr. E.F. who was delayed in the study wards and was then transferred to another hospital because the relatives with whom he lived did not want him back home immediately as they were going away on holiday.

About three-quarters of the patients discharged to a private household from the study wards were judged to be capable of self-care at the time of discharge, while the others required non-skilled care. The proportion of those discharged to a private household who were capable of self-care was rather greater among the surgical than among the medical discharges, which probably reflects the larger proportion of transfers among the surgical patients (Table C9). The proportion of non-married medical patients discharged to a private household who were judged to be capable of self-care was rather greater than the proportion of married medical patients, but in the case of the surgical patients the position was reversed with a larger proportion of married patients being recorded as being capable of self-care. These differences in the care requirements of married and non-married medical and surgical patients may be partly due to differences in their length of stay in the study wards, with the mean length of stay being lower for married than for non-married people in the medical wards but higher in the surgical wards (Tables 6 and 10). No consistent information was given on the review form as to how many of those discharged to a private household returned to their own home and how many went to a friend's or relative's home, but information from the follow-up interviews indicated that a large proportion of those who lived alone went to a relative's home.

Table 17 Level of care required by study patients at time of discharge by type of discharge

Type of discharge	Married	Non-married	Not known	All cats.
Died in study wards	42	23	-	65
Original/specialist hospital	3	5	3	11
Another hospital				
Medical/skilled nursing care	9	20	1	30
Non-skilled care	5	5	-	10
Not recorded	2	1	-	3
Nursing home				
Non-skilled care	2	2	-	4
Private household				
Non-skilled care	129	19	-	148
Self-care	50	74	-	124
Not recorded	7	10	-	17
Res.home/other	1	6	5	12
Total	250	165	9	424

Relationship between bed use and place of discharge

Table 18 provides information on the patients' bed use in the medical and surgical wards by their place of discharge. This indicates that the pattern of discharge of patients recorded as being admitted or delayed for social or administrative factors was very similar to that of all other live discharges, with just over one-tenth of both groups of patients being discharged to another hospital for rehabilitation or nursing care. In the majority of cases the transfer of patients to another hospital appears to have taken place without any delay occurring in the study wards, reflecting the efficiency of the discharge planning, while those who were delayed in the study wards were mainly discharged to their usual home or to another private household rather than to institutional care.

Table 18 Relationship between bed use by the study patients and their place of discharge

Place of discharge	Admitted due to home circs./admin. reasons *	Delayed due to home circs./admin. reasons	Other discharges
Died in study wards*	3	-	62
Original/specialist hospital*	-	-	11
Another hospital	1	3	39
Nursing home	1	2	1
Private household	10	18	26
Res. home/other	-	1	11
Total	15	24	385

* Discharge not reviewed

Summary

The review of the patient's need for admission and length of stay in the study wards has shown that only a fairly small proportion were recorded by the hospital doctors to have been admitted or delayed in the study wards due to their home circumstances or for administrative reasons. Of the 39 patients who did come into this category, the majority spent only a small number of days in the study wards, with only 6 of these patients spending 20 days or more in the study wards. The proportion of those who were admitted or delayed in the study wards because of their home circumstances or for administrative reasons and who were subsequently discharged to another hospital was also very similar to that for all live discharges. With regard to the marital state of patients, the review showed that those who were admitted or delayed in the study wards because of their home circumstances or for administrative reasons were fairly evenly divided between married and non-married people.

4. TOTAL HOSPITAL USE

This section looks at the patient's total hospital use in terms both of the total number of days spent in hospital by those whose hospital stay was not confined to the study wards, and in terms of the extent to which people were re-admitted to the study wards from the community.

Length of hospital stay

The study patients who spent their entire hospital stay in the study wards comprised 92 per cent of the medical admissions and 68 per cent of the surgical admissions. A small proportion of the study patients in each specialty were both admitted from and discharged to another hospital, and consisted mainly of people who were admitted from a geriatric hospital and who returned there on discharge from the study wards. A rather larger proportion were either admitted from or discharged to another hospital, with the majority coming into this latter category. The proportion of non-married people who spent only part of their hospital stay in the study wards was rather higher than for married people, with 8 per cent of the married and 21 per cent of the non-married admissions coming into this category. This difference arose partly because the majority of those who were admitted from a psychiatric or geriatric hospital and who returned to that hospital after a period in the study wards were non-married people, and partly because a higher proportion of non-married than married general surgical patients were discharged to another hospital for rehabilitation or nursing care.

Table 19 Study patients by type of hospital stay

Type of hospital stay	General Medicine				General Surgery			
	Married	Non-married	Not known	All cats.	Married	Non-married	Not known	All cats.
Admitted from and discharged to another hospital	1 -	3(2)	2	6(2)	2(4)	4(9)	-	6(6)
Admitted from or discharged to another hospital	10(5)	10(8)	1	21(6)	7(15)	17(37)	1	25(26)
Study wards only	190(94)	107(90)	3	300(92)	39(81)	25(54)	2	66(68)
Total	201(100)	120(100)	6	327(100)	48(100)	46(100)	3	97(100)

In the routinely collected HAA data each admission and discharge is treated as a separate spell of in-patient care. Thus, a high transfer rate will tend to reduce the apparent length of stay and increase the admission rate, while a low rate of transfer between hospitals will have the reverse effect of increasing the apparent length of stay and reducing the admission rate. The rate of transfer is known to be rather higher for patients admitted to acute hospitals than for other types of hospitals, due largely to people being discharged from an acute hospital to another hospital to complete their period of in-patient care. In addition, the rate of transfer is particularly high for elderly people (Butler and Morgan, 1977). However, little is known about the total length of hospital stay of those patients whose in-patient care is divided between two or more hospitals. In the present study an attempt was made to gain some information as to the patient's total length of hospital stay through following-up the 15 medical and 28 surgical patients who were discharged to another hospital for rehabilitation or nursing care, and recording the number of days spent in the hospital they were discharged to. The 43 patients for whom this information was recorded comprised 65 and 90 per cent respectively of the medical and surgical admissions who entered another hospital directly on leaving the study wards. Most of these people had been admitted to the study wards from the community but three had been admitted from another acute hospital.

Table 20 Mean length of stay of study patients discharged to another hospital for rehabilitation or nursing care

Place of hospital stay	General medicine mean stay (days)	General surgery mean stay (days)
In study ward	18.7	11.6
In hospital discharged to	26.8	16.5
Total hospital stay	45.5	28.1

* Based on 15 general medical and 28 general surgical admissions

The 15 medical admissions who entered another hospital for rehabilitation or nursing care had as a group the longest average stay in the study wards (Table 10). In addition, they spent an average of about 27 days in the hospital discharged to from the study wards, giving a total mean length of hospital stay of over 45 days. The 28 surgical admissions had a rather shorter average stay in the hospital discharged to from the study wards, but even so, their total hospital stay was about 28 days. If the number of bed-days occupied by these

43 patients in the hospitals to which they were discharged from the study wards is added to the length of time spent in the study wards by the total study population, this produces an average hospital stay of 12.7 days for the medical patients and 16.0 days for surgical patients. As we have seen, even these figures do not reflect the total hospital stay for all patients in the study, as they exclude the length of time spent by patients in specialist hospitals. This finding is similar to that reported by Hunter who found that 18 of the surgery patients in one of the three hospitals she studied were transferred to a continuation hospital where they spent a total of 136 days (Hunter, 1972). She calculated that if the length of time spent in the continuation hospital were added to the total of in-patient days, the average length of stay of the 88 patients would be raised from 9.61 to 11.15 days. As she points out, it is difficult to assess whether a patient's total time away from home was influenced by their transfer to a continuation hospital. However, with regard to the influence of a continuation hospital on length of stay data she concludes:

> "It is not, therefore, realistic to compare the average length of stay in this hospital with hospitals which do not have a continuation hospital ....." (Hunter, 1972, p.29).

The possibility that the relative lengths of stay of married and non-married people in the study ward might have been influenced by the high rate of transfer, and especially in the case of surgery patients, was examined by looking at the length of time spent in the second hospital by the 16 married and 26 non-married patients transferred from the study wards to another hospital for rehabilitation or nursing care. This showed that if the length of time spent in the second hospital was added to the total number of days spent in the study wards by all patients, the difference in the mean lengths of stay were reduced, but the married surgery patients still had a rather greater length of stay than the non-married. On the basis of these calculations the total mean hospital stay was 12.5 and 13.5 days respectively for married and non-married medical admissions and 15.2 and 14.8 days respectively for the surgical admissions.

Multiple admissions

Another issue besides that of the total length of time people spend in hospital during an episode of illness is that of the total number of episodes of illness which result in hospital care during a specified period. Information concerning the rate of transfer between hospitals suggests that at least part of the higher rate of admission by non-married people may be due to their being more likely to be transferred between hospitals, but do they also

experience a greater number of separate spells of in-patient care? Information on the number of separate spells of in-patient care experienced by individual patient is fairly limited. However, a study by Mackenzie and others, found that of 452 adult male patients who had survived a full year after discharge, 25 per cent had been re-admitted to hospital on one or more occasion, while the Oxford Record Linkage study found that 11.6 per cent of the patients in the study population who were discharged live from hospital on the first occasion were re-admitted from home and discharged again at least once during the calendar year (McKenzie et al, 1962; Acheson and Barr, 1965). The Oxford Record Linkage study indicated that the re-admission rate rose throughout adult life until the age group 75 plus, with the readmission rate being 17.4 per cent for those aged 65-74 years but 15.2 per cent for those aged 75 years and over.

In the present study thirty people were recorded as being re-admitted to hospital, representing 7 per cent of all patients. These consisted of 17 people re-admitted to the study wards and 13 people who the interviewer was told had been re-admitted to hospital when she called for the follow-up interview. These multiple admissions were mainly concentrated among the medical patients with twenty-seven being from the medical wards and three from the surgical. They also included a large number of married people with 21 being married and only 9 being single or widowed, which probably partly reflects the higher proportion of married people admitted for regular therapy. These figures do not however, provide a complete picture of the total amount of hospital use by the study population during a nineteen-week period, as some of those admitted to other hospitals, or to other wards in the study hospital, would not have been picked up in the study and probably accounted for some of the non-contacts in the follow-up interviews. In addition, those who entered the study wards near the beginning of the research period had a much greater chance of being re-admitted to these wards and being included in the review on a second occasion than did those who entered the study wards towards the end of the research period. However, while only partial information on multiple admissions was gained in the present study it does draw attention to the fact that a considerable portion of total bed usage is probably concentrated among particular groups of people.

Summary

Information on the study patient's total length of stay has pointed to the influence of the transfer of patients to another hospital on the mean length of stay in the study wards. In addition attention was drawn to the existence of a considerable number of re-admissions during a fairly short period of time. While the rate of transfer was highest among patients in the surgical wards and

particularly among non-married patients, the proportion of re-admissions was greatest among the medical patients, and particularly among married people.

5. COMPARABILITY AND INTERPRETATION OF THE FINDINGS

This section compares the findings of the present review of hospital use with those of previous studies and identifies the factors which may be responsible for the widely varying findings of hospital reviews. It also considers the findings of the present review with regard to the rates of hospital use by married and non-married people.

Comparability of the findings

Ad hoc reviews of hospital use have identified varying proportions of patients who are regarded as occupying a hospital bed for social or administrative reasons with figures ranging from 3 per cent to over 25 per cent. For example, Butler and Pearson in their study of hospitals with officially classified acute beds in the Liverpool region found that of just over one thousand patients who had stayed in an acute bed for longer than 30 days, 22 per cent did not need to be in hospital at all (Butler and Pearson, 1971). Similarly, Chant, McGinn, Triger and Wales who reviewed all medical and surgical beds in two district general hospitals reported that in 25 per cent of their observations the patient reviewed should not have been in an acute bed. (Chant, McGinn, Triger and Wales, 1975). Reviews which have identified much smaller proportions of beds used for primarily social or administrative reasons include a study by Mackintosh, McKeown and Garratt carried out in Birmingham in 1961, which found that only 1.6 per cent of the patients reviewed in general and special hospitals did not require admission on medical grounds and 6.9 per cent were considered ready for discharge from the medical point of view, while a more recent study carried out in the Northern Health and Social Services Board area in Ireland found that 13.5 per cent of the medical patients and 5.8 per cent of the surgical patients reviewed did not require hospital care (Mackintosh, McKeown and Garratt, 1961; Donaldson, Wheeler and Barr, 1977). The proportion of patients recorded in the present review as being admitted or delayed in the study wards due to social and/or administrative reasons thus lies at the lower end of the range of findings, with the proportions being 10 per cent of the medical and 5 per cent of the surgical admissions.

While a large number of ad hoc reviews of hospital use have been undertaken little attempt appears to have been made to account for the varying findings. The factors which influence the results of a review are however probably of two main types; namely, the factors associated with the setting of the study and the factors associated with the method of review. The factors associated with the setting of the study which may account for a 'real' difference in the

findings of a review are on the one hand those of the age and social circumstances of the patient, and on the other hand those of the characteristics of the hospital and availability of alternative facilities and services in the community. With regard to the characteristics of the patients, it is known that rising age tends to be associated with increased morbidity and thus with a greater need for clinical care. Also, those with the fewest economic and social resources appear to make the greatest use of official services for primarily social reasons. However, whether a person with a low clinical need for medical care but a high social need will be catered for through the occupancy of a hospital bed will depend on the characteristics of the hospital and the availability both of hospital beds and of alternative facilities and services in the community. With regard to the characteristics of the hospital which may influence the way in which beds are used, perhaps one of the most important is the type of ward or hospital under consideration. For example, the proportion of patients occupying hospital beds for what can be broadly classified as social reasons will tend to be smaller in an acute than in a geriatric hospital, due to differences in the function of these two types of hospital. However, studies have also pointed to differences within each broad hospital group in the extent to which beds are occupied for primarily social reasons. One of the most important factors influencing the use of beds in a particular facility is that of the availability of beds, or in other words the supply of beds in relation to the population. Where beds are in short supply the clinical threshold for admission will tend to rise and expectations as to the level of recovery expected on discharge will tend to be lowered, thus bringing into balance the supply and demand for beds (Newell, 1964; Feldstein, 1966; Logan, 1972). Thus, where there is a heavy demand for hospital beds the proportion of people who are admitted or retained in hospital when they have a low clinical need for care will tend to be reduced. The demand for and use of hospital beds is however also influenced by the level of complementary and substitute services in the community. Where these are in good supply, this may on the one hand reduce the demand for admission and on the other hand enable patients to be discharged earlier than would be considered appropriate in the absence of such facilities and services. The precise effect of the availability of alternative facilities and services will of course vary according to the extent and nature of the alternatives available, and on their being perceived as substitutes to acute hospital care by the general practitioners and the hospital personnel. While differences in the use made of hospital beds may be largely explained in terms of the function of the hospital, the characteristics of the population and the availability of beds and alternative facilities in the community, important differences also exist in the use of beds made by firms working

in a similar setting. These differences reflect differences in their leadership and the policy they adopt with regard to admission, and perhaps more especially the length of stay which they regard as necessary or desirable for a particular condition (Heasman, 1964; Heasman and Carstairs, 1972). In addition, the organisational arrangements, and particularly the efficiency of discharge planning and of referral procedures, will influence the extent to which patients are 'delayed' in a particular facility (Hunter, 1972).

Having identified some of the factors which influence the extent to which patients are admitted and retained in a particular facility because of their social needs for care, it is necessary to examine the features of the study hospital which may have accounted for the fairly small proportion of patients recorded as occupying beds for 'social' reasons and the small number of additional bed days arising from such causes. One important factor is that the study was based on medical and surgical admissions to a district general hospital, for the extent to which beds are occupied for primarily social reasons in the acute sector is likely to be much smaller than in long-stay hospitals. In addition, discussions with the medical personnel working in the study hospital revealed that elderly patients were often referred to another acute hospital in the local area or to a geriatric hospital if their need for hospital admission had a high social component and a low clinical component. Thus, this would serve to select out many elderly people with a high social need but low clinical need for care from referral to the study wards. Evidence of the operation of this selection process is provided by the fact that only ten of the 424 admissions to the study wards were recorded as being admitted for primarily nursing care. With regard to discharge, the review showed that the surgical firm involved in the study made considerable use of a local hospital, with a large proportion of patients being discharged there for pre-convalescent care. This means that the surgical patients were unlikely to be delayed in the study wards for social reasons, with such use occurring if at all, in the second hospital. Unlike in the case of the surgical patients, the rate of transfer did not appear to be especially high for medical patients. However, there was only one case of a 'blocked bed' among the medical admissions during the study period and several junior doctors commented on the short length of stay in both the medical and surgical wards compared with their previous experience in a teaching hospital. Indeed, long-stay patients were virtually absent from the study wards, with only 20 of the 424 patients staying in the study wards for 30 days or more and only 6 patients spent over 40 days in the study wards. In contrast, patients with stays of 30 days or more formed the focus of Butler and Pearson's study of officially classified acute beds in the Liverpool region and comprised nearly

one-quarter of the patients in surgical and orthopaedic beds in a London hospital in which 16 per cent of the patients were regarded as having no medical need to be in an acute ward (Butler and Pearson, 1971; Murphy, 1977). Thus, evidence concerning the admission, place of discharge and length of stay in the study wards suggests that the fairly small proportion of patients and bed days recorded as being due to social/administrative factors was to a large extent associated with the particular characteristics of the study hospital and the availability of alternative facilities, combined with well-organised referral procedures and discharge planning.

In addition to what may be regarded as 'real' differences in hospital use, the findings of a review may also be influenced by the design and method of review (Brook and Appel, 1973). As indicated on pages 17-19, utilisation reviews differ in terms of their timing, the personnel acting as reviewers and the criteria used in reviewing patient placement. These factors may all affect the results obtained but it is likely that the most important factor is that of the criteria used in reviewing patient placement. In the present study the emphasis was on determining whether the patient's admission or discharge had been influenced by a consideration of their home circumstances. However, if as in some other studies the reviewer had been asked whether the patient could have been treated in an alternative lower level facility, it is likely that a higher proportion of patients would have been recorded as not requiring acute hospital care on clinical grounds. For example, one study which involved a review of 602 adults in six medical and four surgical wards of one teaching hospital, found that only three of the patients admitted were classified as having conditions which could be treated at home but 67 could have been treated in a GP unit. With regard to discharge, 64 patients were considered to have been able to be discharged home earlier, while a further 94 could have been discharged earlier to a GP unit (Loudon, 1970). Besides differences in the criteria specified for judging the appropriateness of hospital use, the results of a review will also depend on whether judgements as to patient placement are made in the context of an ideal or optimum situation, or as in the present study in terms of the facilities and services perceived as being available locally (Berg, Browning, Crump and Wenkert, 1969). In addition, there are also differences in the type of hospital use which is considered. For example, this study was concerned exclusively with the patient's admission and discharge and did not include delays in the performance of in-hospital procedures except insofar as they were directly responsible for a delay in discharge.

While aspects of the design of the review may influence the type and nature of the judgements required, there is also the question of the accuracy of the

recording and of the presence of reviewer variability. No checks were made on the reviewers' judgements in the present study. However, a number of factors were identified which may have influenced the doctors' judgements. These included the fact that they were reviewing patients under the care of their own firm, the tendency to take into account the G.P.'s tentative diagnosis in reviewing the patient's need for admission and the reviewer's own previous hospital experience. While such factors are thought to have reduced the number of patients recorded as being admitted or delayed for social reasons, the amount of such under-recording is believed to have been fairly small (see pages 136-138). Another factor which may have resulted in some under-representation of the extent to which patients were delayed in the study wards or transferred to another hospital because of their home circumstances is that of the difficulty of disentangling the various considerations involved in medical decision-making and of assessing their relative importance. Thus it is possible that in some instances where a patient was delayed or discharged to another hospital for 'further medical care' that this was due both to their age and medical condition as well as to their home circumstances. For example a married man aged 80 years was delayed in the study wards for six days because, "unable to manage at home until completely mobile". In the absence of any further information such people were recorded as being delayed in the study wards or transferred to another hospital for medical reasons, which may have reduced the extent to which social considerations were recorded as influencing medical decision-making.

While it is possible to identify factors which may account for the varying findings of hospital reviews, it is not possible to assess the contribution of these factors to the overall findings on the basis of the studies that have been undertaken to date. This is due to the difficulty of making valid comparisons between studies as a result of the lack of standardization in their methods. Thus, while the fairly small proportion of patients identified in the present review as occupying hospital beds for primarily social reasons can be shown to be influenced by both the characteristics of the study hospital and the particular methods employed in the review, it is not possible to make precise comparisons between the bed use in the study wards and in other hospitals in which reviews have been carried out.

Marital variations in hospital use

The present review showed that in line with the findings from the analysis of the national HIPE data, the rate of admission to the study wards was higher for non-married than for married people, except for non-married women aged 64-74 years who experienced a lower rate of admission than married people.

Overall, the length of stay in the general medical wards was also rather higher for non-married than for married people. However, an examination of the mean duration of stay of men and women patients showed that this difference only held for men. For women patients in the medical wards and among both men and women in the surgical wards the mean duration of stay was rather higher for married than for non-married people, although the differences were small. The longer mean stay of married than of non-married patients in the study wards is in direct contrast to the pattern revealed by the national HIPE data but was found to hold for surgical admissions to the study hospital for the full year.

With regard to the use of hospital beds, a total of eleven married and four non-married patients were recorded as having been admitted for conditions which could have been treated in the outpatient department or by the general practitioner, while of the twenty-four patients recorded as being delayed in the study wards for social or administrative reasons, fourteen were married and ten non-married. In addition, some patients were discharged to another hospital for what could be classified as social reasons.

The absence of the expected pattern in terms of the relative lengths of stay of married and non-married people in the study wards and the fact that non-married people appeared no more likely than married people to be admitted or retained in the study wards because of their home circumstances may probably be explained in terms of the particular characteristics of the hospital and wards in which the review was conducted. In a situation where the clinical threshold for admission is fairly high and the length of stay relatively short, the total number of bed days occupied for primarily social reasons is likely to be fairly small. This in turn will tend to reduce the extent to which a particular group, such as the non-married, are admitted or retained in hospital for primarily social care, and thus will limit the possibility, and extent, of differences in the rate of bed-use between married and non-married people. As we have seen, the proportion of bed days used for primarily social reasons was lowest in the surgical wards and was associated with a high transfer rate, which in turn may explain the absence of the expected pattern among the surgical admissions with regard to the relative lengths of stay of married and non-married people. It is therefore hypothesized that the differences in the rates and type of hospital use by married and non-married people is likely to be smallest where there is a high clinical threshold for admission and a relatively short length of stay, and especially where it is associated with a high rate of transfer to another hospital for continued care. Thus while the present review has not demonstrated the existence of the expected pattern with regard to the

length of stay of married and non-married people it has identified the factors which may determine the presence of differences.

The report so far has been based on information from the reviews of 424 admissions and has been primarily concerned with the rates and type of hospital use of married and non-married people. In the following sections attention is turned from the pattern of hospital use to the question of the causes of the variations in hospital use by married and non-married people. These sections are mainly based on information obtained from those who were interviewed after discharge from the study wards and particularly on the 245 people who usually lived in a private household. This part of the report begins by examining some of the characteristics of married and non-married people which are thought to be directly related to the differences in their rate and pattern of hospital use. These include differences in the levels of health of married and non-married people and in factors contributing to morbidity such as bereavement and loneliness, as well as differences in the social needs of married and non-married people arising from variations in the size and composition of households, in the nature and extent of their kin network and in the physical characteristics of their homes. While it is possible to point to differences in the levels of health and home circumstances of married and non-married people it is recognised that such differences may not be directly translated into hospital use. Thus, the final section examines the question of the extent to which the factors identified from the patient interviews as contributing to the need for social care were actually taken into account in admission and discharge decisions by comparing the information from the review forms and from the follow-up interviews.

VI MEDICAL AND SOCIAL NEEDS FOR CARE

6. MARITAL STATUS, HEALTH AND LONELINESS

This section is concerned with the levels of health of married and non-married people. It first looks at the perceived state of health and functional abilities of the married and non-married people interviewed who usually lived in a private household and then examines two factors which are regarded as being associated with increased morbidity, namely the break-up of marriage and the experience of loneliness.

Marital state

An important question in considering the relationship between marital status and health, and especially the notion that the higher mortality rates of non-married compared with married people are associated with the less favourable environment of non-married people, is that of the length of time people have spent in a particular marital state. In the case of those who reported that they were married at the time of the interview, 18 per cent said they had been married more than once. However, all but a small proportion of those who were currently married (8 per cent) had lived with their current partner for 20 years or more and thus experienced a considerable degree of continuity in their marital state. In the case of those who reported that they were currently widowed, divorced or separated, 11 per cent said that they had been married more than once. As might be expected among people in this age group, those who were currently widowed or divorced/separated were most likely to have experienced a recent change in their marital status, with nearly one half (47 per cent) reporting that they had lost their spouse within the previous ten years and one-quarter within the previous five years. Those who are classified as non-married thus include quite a large group of people who have only fairly recently entered this state.

Perception of health

The amount and type of information collected in the present study with regard to the health and morbidity experience of the people interviewed was fairly limited. This was largely because it was expected that in many cases people's perception of their health and abilities would probably be influenced by their recent illness. It was therefore planned to collect fairly detailed information on the health and abilities of different marital groups in the prospective case studies to supplement information from the present study.

One question people were asked in the present study was whether they

would rate their usual state of health as excellent, good, fair or poor. In response 57 per cent rated their health as excellent or good and 22 per cent came into each of the categories of fair or poor. The proportion who rated their health as poor appears to be rather higher than has been reported in community studies. For example, in the cross-national study of elderly people carried out in 1962, 57 per cent of the respondents in Britain rated their health as good, 29 per cent as fair and only 14 per cent as poor, while in a more recent study of elderly people in private households, 78 per cent reported that they generally enjoyed good health (Shanas et al., 1968; Hunt, 1978b). The higher proportion of people in the present study who rated their health as poor may reflect the fact that all those interviewed had recently been hospitalised. These people may therefore differ in terms of their usual state of health from the population as a whole, while their recent illness may also have influenced their judgement as to their usual state of health.

Most of those who rated their health as 'poor' explained that this was due to deterioration in their health through the onset of specific complaints and in many cases people identified fairly precisely when this deterioration had occurred. In contrast, five people who rated their health as 'poor' stated that they had never had good health:

"I've never had good health" (Widowed woman aged 78 years)

"I was born delicate. Had gastric trouble since a very young woman" (Widowed woman aged 90 years)

"I've always had bronchitis" (Widowed woman aged 78 years)

"Epileptic since I was ten years old" (Married woman aged 72 years)

As Table 21 shows, the single appeared to rate their health more favourably than other marital groups, while married people were most likely to rate their health as 'poor'. The higher proportion of married than non-married people who stated that their health was 'poor' may reflect a real difference in their state of health, due perhaps to married people being more likely to continue to live in a private household even when fairly restricted in their activities, or it may be due to differences in attitudes and perceptions between marital groups and to the possible existence of a larger proportion of health optimists among the non-married people interviewed (Garrity, Somes and Marx, 1978).

There did not appear to be any increase in the proportion of people who rated their health as 'poor' with advancing age, although there was a

tendency for a rather larger proportion to rate their health as 'fair' and a corresponding decrease in the proportion who rated their health as excellent or good (Table C12). The fairly small proportion of people among those aged 85 years and over who rated their health as poor may be partly because although health tends to decline with age, elderly people who reach the more advanced ages, and particularly those who continue to live in private households are a highly selected group in terms of health. In addition those who have attained a high age tend to have lower expectations about their health (Shanas, 1968, pp.36-40).

Table 21 Perception of usual state of health*

Perceived state of health	Married	Single	Widowed	Div/sep.	All categories
Excellent	25(18)	7(30)	9(13)	-	41(17)
Good	57(40)	8(35)	28(39)	4	97(40)
Fair	25(18)	5(22)	21(30)	3	54(22)
Poor	34(24)	3(13)	13(18)	3	53(22)
Total	141(100)	23(100)	71(100)	10	245(100)

* Except where otherwise stated all Tables refer to the 245 respondents who usually lived in a private household

Besides asking a general question about people's usual state of health, they were also asked whether they had any long-standing illness, disability or handicap, and if so, whether this restricted their activities. In reply to these questions, one-third said they suffered from an illness, disability or handicap, of whom about three-quarters reported that the condition restricted their activities. In contrast to the findings of the General Household Survey, the proportion of widowed people who reported a long-standing illness, disability or handicap was no higher than for other marital groups (Office of Population Censuses and Surveys, 1973, 1976).

Table 22 Reporting of a long-standing illness, disability or handicap and activity restrictions

Illness condition	Married	Single	Widowed	Div/ sep.	All cats.
No long-standing illness	92(65)	13(56)	48(68)	9	162(66)
Long-standing illness but no activity restrictions	13(9)	3(13)	4(6)	-	20(8)
Long-standing illness and activity restrictions	36(25)	7(30)	19(27)	1	63(26)
Total	141(100)	23(100)	71(100)	10	245(100)

As might be expected, there was a relationship between people's assessment of their usual state of health and the reporting of a long-standing illness, disability or handicap but overall nearly one-quarter of those who rated their health as excellent or good reported a long-standing illness, disability or handicap, while about one-half of those who rated their health as fair or poor reported no long-standing illness, disability or handicap (Table C13). This may be partly due to differences in people's expectations and assessments of their health and also to differences in the nature of the long-standing illness, disability or handicap. As other studies have shown, the presence of a long-term illness, disability or handicap may not enter into people's assessment of their health if it is of an intermittent nature or affects only particular activities (Baumann, 1961; Gordon, 1966). Similarly, people are most likely to view their health as poor if they suffer from a long-term condition which restricts their daily activities and particularly if it restricts their mobility. Examples of people in the present study who rated their health as good but who reported that they suffered from a long-standing illness included a married man aged 69 who rated his health as good, but said that he had suffered from spells of angina since 1967 and high blood pressure for the last four years, and that he becomes, "fagged out and can't breathe", while another man aged 77 rated his health as good but explained that he had suffered from, "swollen ankles since I broke this ankle eighteen years ago". When asked whether this restricted his activities in any way, he explained that, "It affects my walking. I lose my balance sometimes."

Functional abilities

Among those who rated their health as poor were a small group of people who were normally dependent on others for assistance and care. Altogether eleven people reported that they normally received assistance with two or more of the personal care tasks listed in Table 23. These eleven people all lived with others and consisted of nine married and two single people. Most of these people were almost completely dependent on other household members and in the absence of others in the household who were able to provide the necessary care, they would have probably required institutional care. Two particularly dependent people in this category were Mrs. P.B. and Mrs. A.S. who as we have seen were admitted to the study wards because their husbands needed to go into hospital for surgery (see p 39). Another such person was Mr. T.D., a married man aged 82 who lived with his 77-year old wife. Mr. T.D. is almost blind and suffers from a long-standing illness, which means that he is mainly confined to bed. He was described by his wife as being totally incapable of doing anything for himself. He does not usually dress and is helped by his wife with washing, bathing and shaving.

Table 23 Number of people who normally received assistance with specified personal care tasks

(based on 141 married and 104 non-married people living in private households)

Personal care task*	Married	Non-married
Washing hands and face	3	1
Having all-over wash or bath	13	5
Dressing and undressing	9	3
Shaving (men) or brushing and combing hair (women)	4	2

* Categories are not mutually exclusive

Those who required assistance with personal care tasks were the most severely handicapped but many others required varying degrees of assistance and care. The proportion of people in the population identified as handicapped or impaired depends on the definitions used and the method of measurement. For example, Harris's survey based on self-care ability reported that 27 per cent of the elderly were impaired and 5 per cent very

severely handicapped, while Townsend's survey identified 45 per cent as having some limitation of activity (Harris, 1971; Townsend, 1968). This question of the comparability of the findings of different surveys of the prevalence of impaired people and impairments has recently been the subject of a detailed study (Knight and Warren, 1978). However, while the proportion of people classified as handicapped or impaired will necessarily vary according to the method and criteria used in making such assessments, what is confirmed by all studies is the existence of substantial, and increasing, numbers of elderly people in the community who are severely restricted in their activities and who are therefore dependent on other household members for assistance with personal care tasks.

Break-up of marriage and health

The crisis of the loss of a spouse has been shown to adversely affect the physical and mental health of widowed people and to be associated with an increase in mortality, with the effects being particularly pronounced during the first year of bereavement (Young, Benjamin and Wallis, 1963; Cox and Ford, 1964; Rees and Lutkins, 1967; Stein and Susser, 1969; Parkes, Benjamin and Fitzgerald, 1969). There have been relatively few studies of the effects of divorce on morbidity and mortality but Chester's study of the self-reported health experiences of female petitioners for divorce suggests that the effects of divorce on health is fairly similar to that of widowhood, while the maximum disturbance was found to occur in the later stages of marriage and separation rather than with the divorce action itself (Chester, 1971).

Although there has been shown to be a relationship between the termination of marriage and health, relatively little is known as to the precise ways in which this loss may affect the health of the surviving spouse of divorcee, and particularly as to whether it is likely to lead to an increased use of hospital in-patient care. In the present study about one-third of widowed and divorced/separated people reported that the termination of their marriage had affected their health. The fairly small proportion of people who said that their health had been affected may be partly due to difficulties of memory, as for a considerable number of people the break-up of their marriage had occurred many years ago (Table C18). Thus only one-third of those who had been widowed for five years or more reported that the break-up of their marriage had affected their health compared with about two-thirds of those who had been widowed for five years or less at the time of the study. In addition, in cases where the death was expected, and particularly where the bereaved spouse

had nursed their partner during a terminal illness, it appeared that their bereavement was less likely to have affected their health than when the death of their spouse was sudden.

Table 24 Reported effect of the break-up of marriage on the respondent's health *

Type of effect	Widowed under 5 years No.	Widowed 5 years and over No.	Divorced/ separated No.	All cats. No.
Adverse	10	14	2	26
Beneficial	-	1	1	2
None	9	38	6	53
No answer	2	2	2	6
Total	21	55	11	87

* Based on the 81 widowed, divorced and separated respondents living in private households and the 6 in institutional accommodation

Those who reported that their health had been affected by the loss of their spouse mainly reported an adverse effect on their health but two people reported an improvement in their health. One of these people was a woman who had been widowed for six years and who explained:

> "I used to have epilepsy but the shock stopped me from having them (fits)."

The other person was a man who was separated from his wife. He explained that his health had improved since their separation, as his wife often became violent and beat him, and her violence caused him to have a mental breakdown.

In most cases where the respondent reported that the break-up of their marriage had adversely affected their health, this appeared to take the form of a temporary state of shock and emotional upset:

> "Suffered from shock and had to have pills." (Widowed 5 years)

> "It was a shock to me and I didn't seem to grasp what had happened. I lost a lot of weight." (Widowed 7 years)

> "I cried all day and did not care about anything. I did not want to live." (Widowed 4 years)

"I was broken-hearted but no one wants you when you're miserable, so I've bucked up." (Widowed 3 years)

In other cases the respondent mentioned more specific conditions which often appeared to have required medical attention and in some cases were of a fairly long-term nature:

"I went off my food and started drinking" (Widowed 12 years)

"I was shocked that she died before me. Every so often I used to come over bad and had to have the doctor come and give me injections and I've been on sleeping pills ever since." (Widowed 2 years)

"I was upset of course. I had shingles afterwards." (Widowed 2 years)

"Brought on an ulcer from the shock." (Widowed 2 years)

"More or less complete break-down. Four months off work." (Widowed 4 years)

"That's when I started having asthma." (Widowed 9 years)

"Since then I've had a bad heart." (Widowed 15 years)

Although the present study cannot provide any indication of the relative frequency of particular types of states and conditions following the break-up of marriage, it does indicate that in a small proportion of cases the bereaved spouse is likely to suffer from a condition requiring medical attention, and that for some bereavement has a fairly long-term effect on their health. It seems possible that in some instances the experience of widowhood may cause conditions which require hospital in-patient care but actual evidence of this was only provided in the case of one person. This was a man aged 75 years who tried to take his life with his deceased wife's pills two days after her death. As a result he was admitted as an emergency to the study wards where he spent 14 days and was then discharged to his son's home.

Loneliness

Whereas social isolation refers to an objective situation, loneliness refers to a psychological state and has been defined as an unwelcome feeling of lack or loss of companionship. Loneliness has been found to be associated with poor health. While poor health may contribute to feelings of loneliness, loneliness whatever its origin may also affect health. Durkheim in his classic study of suicide identified a relationship between

feelings of anomie and suicide, while more recent studies have drawn attention to the relationship between social isolation, loneliness and mental illness (Durkheim, 1952; Lowenthal, 1962; Gibbs, 1969). Less is known about the effect of loneliness on physical health, although recent studies of bereavement have pointed to the relationship between the loss of a spouse or other close relative and feelings of loneliness, desolation and an increased risk of morbidity and mortality for the bereaved person.

Most people have an understanding of the meaning of loneliness and those in the present study appeared to be able to place themselves fairly readily into one of the three categories of 'often lonely', 'sometimes lonely' and 'never lonely'. As Table 25 shows, married people were more likely to rate themselves as never lonely than were non-married people. Among the non-married, those who were most likely to regard themselves as sometimes or often lonely were those who had been recently widowed and those who were usually on their own (Tables C18 and 19). In addition, in each marital group people who rated their health as poor were more likely to regard themselves as sometimes or often lonely than were those with more favourable health ratings (Table C20).

Table 25 Feelings of loneliness

Feelings of loneliness	Married	Single	Widowed	Div/sep.	All cats.
Often lonely	6(4)	2(9)	10(14)	2	20(8)
Sometimes lonely	15(11)	3(13)	15(21)	4	37(15)
Never lonely	120(85)	18(78)	46(65)	3	187(76)
No answer	- -	- -	- -	1	1(-)
Total	141(100)	23(100)	71(100)	10	245(100)

Summary

This section has drawn attention to the heterogeneous nature of the group of non-married people which consists of never-married people, those whose marriage had ended for a considerable period of time, and those who have lost their spouse within the last few years. Questions concerning people's usual state of health and activity restrictions were then examined

but did not reveal any major differences between married and non-married people, although attention was drawn to the difficulties of using such data to make assessments of the relative morbidity of social groups. There was, however, some evidence that the break-up of marriage may have contributed to the morbidity and service use of widowed people. Similarly, non-married people, and especially the recently widowed and those who live alone, reported themselves as feeling more lonely than did married people.

7. AVAILABILITY OF ASSISTANCE AND CARE

The previous section was concerned with the question of possible differences in morbidity between marital groups which may account for differences in their rate of hospital use, while this section focuses on possible differences in their social needs for care arising from differences in the availability of assistance and care from friends and family members. It begins by looking at the size and composition of the pool of potential helpers available to married and non-married people and then considers the perceived availability of assistance with specific non-nursing tasks and in the provision of more comprehensive care.

Household composition*

The household composition of those interviewed was similar to that of elderly people in the population as a whole, with most of the married people interviewed living with their spouse only and the majority of the single and widowed people living alone. The proportion of people in each marital group who lived alone decreased with advancing age, with 57 per cent of the non-married people aged 65-74 years living alone compared with 40 per cent of those aged 75 years and over. However, despite the tendency for the proportion of people living alone to decrease with rising age, quite a large number of very elderly people, and particularly elderly women, were living alone. The smaller proportion of non-married men than women living alone (17 per cent of non-married men and 43 per cent of women) appeared to be associated with a higher proportion of non-married men sharing a household with a married daughter or with a non-related person. Thus, those who live alone include a high proportion of widowed people, and particularly widowed women, due both to the greater number of non-married women than men and their being less likely to share a household with others.

Elderly single people are rather less likely to live alone than are the widowed but those single people who do live alone have generally been living alone for a long period; about two-thirds of the single people who lived alone at the time of the study had lived alone for ten years or over,

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* The term 'household' was taken to include all those with whom the respondents stated they lived. This was usually found to accord with the census definition of a household in that all those identified generally took their meals together and appeared to live as one family. However, in three cases the people identified formed two separate units in that they did not eat together and live as one family. In two cases this consisted of a husband and wife living in the same dwelling but separately from a divorced/separated child and their offspring, while in one case the two units consisted of a married man with his wife and three children who shared a dwelling with his mother-in-law.

compared with only one-third of the widowed who lived alone. As might be expected, among the widows those who had been widowed within the last two years were more likely to live alone than were those who had been widowed for longer periods.

Table 26 People living alone by age, sex and marital state*

Sex and age group	Single	Widowed	Div/sep.	All non-married
Men				
65-74 years	1	9	2	12
75 years and over	1	10	-	11
All ages	2(33)	19(68)	2(29)	23(56)
Women				
65-74 years	5	15	1	21
75 years and over	7	17	2	26
All ages	12(71)	32(74)	3(100)	47(75)
Total	14(61)	51(73)	5(50)	70(67)

* Percentages based on number of people in each sex and marital group (see Table C3)

Elderly people who live alone tend as a group to enjoy better health than those who live with others, with one of the main reasons for elderly people going to share a household with others being that they can no longer manage on their own due to the deterioration in their health. Among those interviewed in the present study only 14 per cent of the non-married people living alone rated their health as 'poor', compared with 26 per cent of the non-married people living with others, while only two of the fourteen people who rated their health as 'excellent' shared a household with others (Table C16). There was however, little difference in the household composition of those reporting the presence of a long-standing illness disability or handicap (Table C17). This may be partly because those who live alone are more aware of their activity restrictions than are those who can normally rely on other household members for assistance. However, all

those who were identified as being dependent on others for personal care tasks were sharing a household (Table 23).

Living alone but in close proximity to related people has been found to be the preferred pattern among elderly people given reasonable health. For example, Townsend and Wedderburn reported that 91 per cent of the old people in their sample who lived alone preferred to continue to do so. Similarly, Tunstall found in his four-area study of elderly people that, "the popular preference, given reasonable health, is to maintain regular contact with children, siblings and others - without imposing on them, or becoming too dependent on them." (Tunstall, 1965). The extent to which people in the present study who were living alone were actually living in fairly close proximity to other relatives and the nature of their social contacts is considered later in this section.

Table 27 Household composition

Household composition	Married	Single	Widowed	Div/sep.	All cats.
Lives alone	-	14(61)	51(73)	5	70(28)
Lives with spouse only	119(83)	-	-	-	119(48)
Shares household with:					
Married children	1(-)	-	10(14)	-	11(4)
Wid/div/sep.children	6(4)	-	-	-	6(2)
Single children	11(8)	-	1(1)	1	13(5)
Sibling	3(2)	7(30)	3(4)	1	14(6)
Other relative	3(2)	1(4)	2(1)	-	6(2)
Non-related person	-	1(4)	4(6)	3	8(3)
Total	143*(100)	23(100)	71(100)	10	247*(100)

* In two cases married people shared a household with people in two of the specified categories

Elderly married people differ from non-married people in that they all generally share a household with at least one other person, whereas only about one-half of the elderly non-married people in the country as a whole share a household with others. Important differences also exist between marital groups in the composition of multi-person households. Single people who live with others mainly share with a sibling, while widowed people live with a child. Married people who share a household with others besides their spouse also mainly live with a child, but whereas widowed people

generally live with a married daughter, married people mainly share their home with a single and to a lesser extent with a divorced or separated child. The tendency for non-married people to share a household with female relatives has been well documented and in the present sample all but two of the non-married people who shared a household with a relative shared with a female relative - usually a sister in the case of single people, or a daughter in the case of widowed people. Similarly, in cases where married people shared a household with a single adult child this was almost always a single daughter. However, all but one of the group of widowed, divorced and separated children who lived with their parents were sons.

The composition of household among the patients interviewed in the present study appears to be very similar to the pattern revealed by community studies of elderly people and points to the important differences in the household composition of married, single and widowed people, both in terms of the number of people in the household unit and their relationship to the respondent. The reasons for related people forming a single household unit or sharing a dwelling are no doubt varied. In some cases it forms the continuation of a household group, as when a single child, most often a daughter, continues to live with her parents. In other cases a household group is newly formed or re-established. This may be for economic reasons, as is sometimes the case when a separated or divorced child, or a young married couple, go to live with their parents, or it may be for reasons of assistance and care, as for example when a person in poor health is taken into a relative's household on a more or less permanent basis.

Contacts with relatives and neighbours

Children generally form one of the main sources of social contact of elderly married and widowed people. However, the amount of contact parents have with their children is influenced both by the number of children they have and by their geographical proximity. The proportions of married and non-married people who had surviving children was fairly similar, with 82 per cent of the married people, 79 per cent of the widowed and 70 per cent of the divorced/separated coming into this category. About two-thirds of these people had one or two children, while just under one-sixth had four or more children.

Despite the factors which operate to disperse families, about four-fifths of those with surviving children had their nearest child living in the same county and a large proportion of these were living in the same

locality. The "same locality" was rather loosely defined, with all places within about five miles of the respondent's home being classified as being in the same locality. Although widowed people were no more likely than married people to have a child living in the same household, they were more likely to be living in close proximity to a child. Thus, whereas only one-fifth of the married people who lived apart from their children had at least one child in the same locality, about two-fifths of the group of widowed, divorced and separated people who did not share a household with a child had a child living in the same locality. In some cases the close proximity of children arises because the children set up home near to their parental home, while in other cases it is due to elderly parents moving to be near one of their children. Moving to be near a child is probably most common among those who have lost their spouse and probably accounts for the large proportion of widowed people who lived in close proximity to at least one of their children.

In general there appeared to be a considerable amount of contact between parents and their children, with 60 per cent of those who had one or more children living in a separate household reporting that they had a child whom they saw at least once a week. As a large proportion of people had more than one child living outside the household, the total amount of contact people had with their children was considerably higher than the figures in Table 29 suggest.

Table 28 Proximity of nearest child

Proximity	Married	Widowed, div/sep. lives with others	Widowed, div/sep. lives alone	All cats.
Same household	18(13)	10(40)	-	28(13)
Same locality	26(18)	4(16)	22(39)	52(23)
Same county	41(29)	4(16)	15(27)	60(27)
Elsewhere in U.K.	29(21)	1(4)	3(5)	33(15)
Outside U.K.	2(1)	1(4)	1(2)	4(2)
No surviving children	25(18)	4(16)	14(25)	43(20)
No answer	- -	1(4)	1(2)	2(1)
Total	141(100)	25(100)	56(100)	222(100)

Table 29 Frequency of contact with child outside household who is seen most often

Frequency of contact	Married	Widowed, div/sep. lives with others	Widowed, div/sep. lives alone	All cats.
Several times a week	36(26)	2(8)	26(46)	64(29)
At least once a week	20(14)	5(20)	10(18)	35(16)
At least once a month	19(13)	4(16)	4(7)	27(12)
Several times a year	18(13)	1(4)	1(2)	20(9)
At least once a year	6(4)	1(4)	1(2)	8(4)
Less than once a year	2(1)	1(4)	1(2)	4(2)
No answer	2(1)	4(16)	1(2)	7(3)
No child outside household	38(27)	7(28)	12(21)	57(26)
Total	141(100)	25(100)	56(100)	222(100)

The group of widowed, divorced/separated people living alone appeared to have the most frequent contact with children living outside the household, with nearly one-half of these people having at least one child whom they saw several times a week. Thus, to some extent the absence of others in the household was compensated for by their more frequent contact with children, and as we have seen, many of these people had at least one child living in the same locality. People appeared to have rather greater contact with their daughters than with their sons, although the difference was small, with 42 per cent of daughters living outside the household and 36 per cent of sons being seen at least once a week. In general, contact appeared to take place through a child visiting an aged parent, which is no doubt largely due to the better health and mobility of the younger generation. However, some elderly people, and particularly those in better health, paid frequent visits to their offspring's homes.

Relatives other than children form another important source of contact for elderly people, and particularly for the single and for others who are childless. People were therefore asked whether they saw a related person regularly, other than a child. The phrase "see regularly" was not defined in the survey and was left to the respondents' subjective interpretation.

However, just over two-thirds of those who reported seeing a relative regularly had a relative whom they saw at least once a week, while only one-fifth who said they were in regular contact with a relative usually saw them less than once a month.

Single people were most likely to be in regular contact with a relative, other than a child or dependent grandchild, with many actually sharing a household with a sibling or other related person. Married people and those whose marriage had terminated were rather less likely to be in regular contact with such a relative but about one-quarter of these people either shared a household with a relative other than an offspring, or had such a relative living in the same locality.

Table 30 Proximity of nearest related person seen regularly, other than a child

Proximity	Married	Single	Widowed	Div/sep.	All cats.
Same household	8(6)	7(30)	5(7)	-	20(8)
Same locality	26(18)	2(9)	14(20)	1	43(17)
Elsewhere in county	21(15)	4(17)	7(10)	1	33(13)
Elsewhere in U.K.	7(5)	1(4)	3(4)	-	11(4)
No other relative	79(56)	9(39)	42(59)	8	138(56)
Total	141(100)	23(100)	71(100)	10	245(100)

Table 31 draws together information on the proximity of this group of elderly people to their children and other relatives. It shows that although most people lived apart from relatives about one-half of all people living in non-institutional accommodation either had at least one surviving child living in the same household or locality, or had another related person whom they saw regularly living in the same household or locality. Although the other 50 per cent of the elderly people could be regarded as geographically isolated from their wider kin, in that they had neither a child, nor another related person whom they saw regularly living in the same locality, about four-fifths of these people had a child or a relative they saw regularly living outside the locality. Thus, only 24 people (10 per cent) were completely isolated from other kin in that they had no child in the United Kingdom and no other relative whom they saw regularly. Single people were particularly heavily represented among this group with just over

one-third of the single people having no regular contact with a relative. The high proportion of single people in this category no doubt reflects their smaller potential pool of relatives due to the lack of children. As with single people, most of the married and widowed people who were not in contact with a relative had no surviving children. In the case of the divorced/separated people it appeared that the reason for the lack of contact with relatives was not so much the absence of children as the breaking of relationships with children.

Table 31 Proximity of nearest child, or other related person seen regularly other than a spouse

Proximity	Married	Single	Widowed	Div/sep.	All cats.
Same household	23(16)	7(30)	17(24)	-	47(19)
Separate dwelling in same locality	42(30)	2(9)	30(42)	2	76(31)
Outside locality	69(49)	5(22)	19(27)	5	98(40)
None	7(5)	9(39)	5(7)	3	24(10)
Total	141(100)	23(100)	71(100)	10	245(100)

Although the majority of people had at least one child in the United Kingdom and/or another relative they saw regularly, it must be remembered that there were probably important differences in the total amount of social contact enjoyed by these people, as well as important qualitative differences in their relationships with kin. Such differences are to be found even among people of similar marital states. Some indication of the differing amounts of contact with relatives experienced by people who came into the same broad category can be gained from the following examples of people classified as having at least one relative living in the same locality. One such person was Mr. T.F., a 68-year old married man. Mr. T.F. lived with his wife apart from any other relatives but had four of his six children living in the same town. He saw three of these children at least once a week, including a married daughter whom he saw every day, and saw the fourth child about once every three months. When asked about this neighbours he said that he had, "daily contact with both sides". Another person who appeared to have a considerable amount of contact with relatives was Mr. P.C., a widowed man aged 79 years who lived alone. Mr. P.C. had

three married children all living in the same locality. He saw one of them daily and the other two twice a week. In addition he had a widowed sister-in-law living four doors away whom he saw daily and had frequent contact with his neighbours. As he explained, "There's always someone popping in." Another widowed person in this category was Mrs. C.T., a 79-year old woman who lived alone. Mrs. C.T. had two children living in the same locality and saw one of them daily and the other at least once a week. She also had a widowed sister who lived next door whom she saw daily and remarked that, "People often call." An example of a single person who lived alone but had a considerable amount of contact with kin was Miss D.N., who daily saw her widowed sister who lived next door to her and saw a married niece at least twice a week and a nephew at least once a week. In contrast to those who have at least one relative living in the locality who appeared to enjoy fairly frequent contact with kin were a small group who although having a relative in the locality had fairly limited social contacts. One person in this category was Mrs. H.W., a 65-year old married women who lived with her husband apart from any other relatives. They had two married children living in the same locality but when asked how often they saw them, replied, "Hardly at all. They are both ill." Mrs. H.W. had no other relatives. Another person who had limited contact with relatives was Mr. B.S., a 70-year old widower who lived alone. He had three children, including a son living in the same locality whom he saw once a week. He rarely saw his other two sons, one of whom lived in Glasgow and the other in Australia, and was not in contact with any other relatives. While the number of people who had one or more relatives living in the same locality but who had relatively little contact with kin was fairly small, those whose children or other relatives all lived outside the locality had, as might be expected, much less contact with kin.

An important source of social contact for many elderly people besides their kin is that of their neighbours. The term 'neighbour' may be used to refer only to those living in adjacent dwellings or it may be taken to include others nearby. In the present study the interpretation of the term 'neighbour' was left to the respondent. However, the replies indicated that although a few people extended the term to include friends who lived in the same road but not in adjacent dwellings, most people appeared to interpret 'neighbours' as referring exclusively to their immediate neighbours. Altogether only just over one-tenth of the respondents said they had no contact with their neighbours, while three-fifths had frequent contact. A national survey of elderly people indicated that all but a small proportion of elderly people in the country as a whole do have

contact with their neighbours but no doubt there are important qualitative differences in the type of contact enjoyed (Hunt, 1978b). Among the present group of people the main reasons for the lack of contact with neighbours were the absence of neighbours due to the isolated position of their dwelling, the fact that their neighbours were out at work all day or because people preferred it that way.

As a group the single appeared to have the most contact with neighbours, which is probably associated with their having a smaller potential pool of relatives than other marital groups, and thus needing to rely more on non-related people. There also appeared to be a difference between single and widowed people living alone and those living with others. Among the non-married people living alone 71 per cent reported frequent contact with neighbours and 12 per cent reported no contact, while the percentages were 53 and 21 per cent respectively for non-married people living with others.

In addition to providing an important social contact for elderly people, and particularly for those who lived alone, neighbours appeared to play an important role for many of those interviewed in ensuring that if they were in difficulty their needs were made known. For example, a widowed woman who lived alone said that she had arranged to hang a red hat in the window if she needs the neighbour opposite, while another person explained:

> "My neighbour's husband fixed me a bell and they told me I only have to ring it for whatever I want."(The bell rings in her neighbour's kitchen.)

Similarly, another widowed person who lived alone commented:

> "These people next door are kindness itself. They come in several times a day and bring me coffee in the morning and afternoon. She never goes by the door without she peeps in."

Besides keeping a friendly eye on their neighbours, some appeared to be providing assistance on a regular basis. As one respondent explained:

> "They fall over themselves to help. They fetch and carry. They couldn't be better people."

Table 32 Amount of contact with neighbours
(excludes the 12 people living in warden-assisted accommodation)

Amount of contact	Married	Single	Widowed/ div/sep.	Non-married lives with others	Non-married lives alone	All cats.
Frequent	84(60)	17(74)	44(62)	18(53)	43(72)	145(62)
Occasional	43(31)	6(26)	13(18)	9(26)	10(17)	62(27)
None	12(9)	-	14(20)	7(21)	7(12)	26(11)
Total	139(100)	23(100)	71(100)	34(100)	60(100)	233(100)

So far, people's social contacts have been defined in terms of their contact with specific groups of people. However, although a person may be in fairly regular contact with a relative and/or see a neighbour quite frequently, they may usually spend a considerable part of the day alone. This may even happen if an elderly person lives with others if the other members are out at work most of the day. People were therefore asked, "When you are at home are you usually on your own most of the day?" As might be expected, most of the married people and the non-married who lived with others were not usually alone. In only seven cases were people living with others usually alone during the day, with this being due to the other household member(s) going out to work.

In contrast to those who lived with others, four-fifths of those who lived alone regarded themselves as being on their own for most of the day. The majority of these people said that they generally saw someone to talk with during the day and were therefore classified as being 'mainly alone'. However, one-fifth of those who regarded themselves as being on their own for most of the day thought that many days usually went by without seeing anyone to talk to. These people were therefore classified as being 'usually alone'. This group included about one-quarter of the single people but under one-tenth of the widowed.

Table 33 Being alone during the day

Whether alone during the day	Married	Single	Widowed div/sep.	Non-married lives with others	Non-married lives alone	All cats.
Not generally alone	138(98)	10(43)	31(38)	28(82)	13(19)	179(73)
Mainly alone	3(2)	7(30)	41(51)	3(9)	45(64)	51(21)
Usually alone	-	6(26)	9(11)	1(3)	14(20)	15(6)
Total	141(100)	23(100)	81(100)	34(100)	70(100)	245(100)

Information on people's social contacts thus indicates that a large proportion of those who live alone, and particularly the widowed living alone, have relatives living nearby. In addition, the lack of other household members and relatives living nearby appears to be compensated for to some extent by greater contact with neighbours. However, although many single and widowed people who live alone have relatives living nearby and a large

proportion have fairly frequent contact with neighbours, a considerable number are alone for most of the day. In addition, it is among the non-married living alone and particularly among the single, that those with the fewest social contacts are found, and especially those who have few or no contacts with related people.

Availability of assistance

The provision of assistance depends not only on the availability of relatives and friends but also on their ability and willingness to provide assistance and on the nature of the help that is required. In the case of elderly people it is likely that a particularly important factor affecting the availability of care, and the nature and duration for which care can be provided, is that of the health and abilities of other household members. Some indication of the health of other household members and their ability to provide care in times of illness was gained by asking the respondent the age of the other household members and to rate the health of other household members as excellent, good, fair or poor. For those whose health was rated as 'fair' or 'poor', a further question was asked as to whether this made it difficult for him/her to look after the respondent in times of illness.

With regard to the age of household members it was found that three-fifths of the married people were living in households in which the youngest household member was at least 70 years of age, with the proportion being 37 per cent for the married men and 47 per cent for the married women. In contrast, only one-quarter of the non-married people who lived with others were living in a household in which the youngest adult member was aged 70 years or more. Among non-married people living in multi-person households the widowed were more likely than the single to be sharing a household with a person aged under 70 years, due to the large number living with their married children. Thus, although a larger proportion of widowed than other non-married people lived alone, those who lived with others were more likely to be living in a household in which there was at least one adult below retirement age.

Table 34 Age of youngest household member other than respondent in multi-person households

Age group	Married	Non-married	All cats.
20-64 years	46(33)	20(59)	66(38)
65-69 years	34(24)	4(12)	38(22)
70 years and over	60(42)	9(26)	69(39)
No answer	1(1)	1(3)	2(1)
Total	141(100)	34(100)	175(100)
Proportion living in multi-person households	(100)	(33)	(71)

Replies to the question concerning the health of household members were tabulated with respect to the health of the most healthy member other than the respondent. The results are presented in Table 35 and show that whereas only three-fifths of the married people rated the health of the most healthy household member as excellent or good, three-quarters of the non-married people regarded the health of the most healthy household member as coming into this category. While it is recognised that such health ratings are of a very subjective nature, the higher proportion of non-married people who rated the health of other household members as excellent or good does correspond with the younger age distribution of households occupied by non-married and especially by single people. In about one-half of the cases in which the health of the most healthy household member was rated as fair or poor it was anticipated by the respondent that this household member would have considerable difficulty, or be completely unable to, provide care in times of illness. This category included several people who were normally dependent on the respondent for assistance and care. For example, Mr. H.S. explained that his wife:

> "Had a stroke down one side. If I had to go into hospital again I would have to take her with me."

Similarly, Mrs. R.P. explained that her husband:

> "Had a bad heart attack two years ago. He can't do a thing for me. I have to look after him."

Mrs. R.P. also looked after her sister who had lived with them for 20 years and who had a bad heart, so, "She can't do anything either."

Table 35 Health of most healthy household member other than respondent in multi-person households

Health rating	Married	Non-married	All cats.
Excellent/good	85(60)	26(76)	111(63)
Fair/poor	54(38)	5(15)	59(34)
No answer	2(1)	3(9)	5(3)
Total	141(100)	34(100)	175(100)
Proportion living in multi-person households	(100)	(33)	(71)

Assistance with specific tasks

A task that people may require assistance with in times of illness, and especially if they are without a telephone, is that of contacting the doctor. The respondent's replies to the question of how they would get in touch with the doctor showed that those who lived with others but who lacked a phone were generally able to rely on other household members for contacting the doctor, while those who lived alone mainly contacted a neighbour, or the warden in the case of those living in warden-assisted accommodation. A few people who lived alone and who had no contact with their neighbours relied on friends or relatives calling and in some cases appeared to often have to wait for several days. This latter group included two people who explained that they would have to rely on a passer-by. One of these people, a widowed man aged 68 years who lived alone explained, "I'd have to write a note and get a passer-by to take it", while the other person, a widowed woman aged 78 years, explained: "I'd have to call out to someone going by." However, with only a few exceptions, the task of contacting a doctor did not appear to be viewed as posing problems. This was largely due to the help expected from neighbours, who often let a household member use their phone or contacted the doctor themselves for the respondent. Actually getting to see the doctor did not appear to be regarded as a problem, for although only one-third of the respondents said they would travel to the surgery by car, just over one-half stated that the doctor usually visits them at home, and probably a home visit could be arranged in other cases if this was necessary.

Another task which often needs doing in times of illness is that of collecting a prescription from the chemist. All but two married people and five widowed people were able to identify someone who would normally be able to do this. As might be expected, the majority of those living with others relied on a household member for this task, although the proportion relying on another household member was rather lower among the married than for single and widowed people, which probably reflects the infirmity of those of the same generation as the respondent. Widowed people living alone relied about equally on relatives living outside the household and on friends and neighbours. A few people relied on the doctor or the home-help to bring the prescription or had established some other kind of arrangement. For example, Mr. J.C., a 75-year old man who lived with his wife who suffered from arthritis of the hips and walked with a zimmer, explained that he would: "Write to the doctor with prepaid envelope." Similarly, Miss D.K., a single women aged 80 years who lived with a younger woman whom she described as having poor mental health, explained that, "Doctor's secretary gets them and I pay people their petrol to collect it", while Mrs. H.B. who lived in a

small village without a chemist explained that there was an arrangement with the garage for collecting prescriptions.

Thus it appears that the majority of people felt that there was someone on whom they could rely for assistance with specific tasks that generally need doing in times of illness. However, whereas married people and single widowed people who lived with others mainly relied on a household member, non-married people who lived alone necessarily looked outside the household and relied most heavily on friends and neighbours. In addition, it was among this group that the small number of people who could not identify anyone who would undertake these tasks was mainly found.

Table 36 Person(s) who would be able to collect prescription

Collecting prescription	Married	Non-married lives with others	Non-married lives alone	All cats.
One person identified				
Person in household	79(56)	25(73)	- -	104(42)
Relatives outside household	6(4)	2(6)	16(23)	24(10)
Friend/neighbour	23(16)	2(6)	22(31)	47(19)
Home help/doctor	3(2)	-	4(6)	7(3)
Other	5(4)	-	10(14)	15(6)
More than one person	23(16)	5(7)	8(11)	36(15)
No person identified	2(1)	-	5(7)	7(3)
No answer	-	-	5(7)	5(2)
Total	141(100)	34(100)	70(100)	245(100)

Care during illness

An indication of the perceived availability of care during illness, rather than merely the assistance with specific tasks, was gained by asking the respondents whether there was someone who would be able to care for them if they were ill in bed for a week. The phrase 'ill in bed for a week' was used in order to give some, although necessarily only a fairly general indication, of the nature and extent of the assistance and care that would be required.

In line with the findings of other studies that the burden of care tends to be borne by one individual, most people identified only one person who would provide such care (Cartwright, Hockey and Anderson 1973; Isaacs, Livingstone and Neville, 1972). In the case of the married people this was mainly their spouse, while the widowed tended to rely on a child and the single on a sibling. Those who lived alone, and particularly the single, were the most likely to rely on friends and neighbours but often expressed doubts as to the type and amount of care that such people would be able to provide. Those who were least able to identify anyone who would be able to look after them if they were ill in bed for a week included a high proportion of single people and of childless widowed people, who are groups which generally have only a small potential pool of relatives. Others who could not readily identify anyone who would be able to perform this role were people who though not lacking relatives did not think that their relatives would be able to care for them in times of illness due to their own health, or particularly in the case of the younger generation to their other commitments, in terms of their own family responsibilities or their employment, as the following four widowed people explained:

"Daughter-in-law lives near but she is very busy, so couldn't help."

"My sister is elderly and my daughter is expecting a baby."

"Not really, my son and his wife work."

"My daughter owns a transport cafe and so she can't really."

Whereas a large proportion of people appeared to rely on neighbours for assistance with specific non-nursing tasks, the proportion identifying a friend or neighbour as their main source of care during a period of illness was much smaller, which probably reflects the difference in the nature of the assistance required. For example, Mr. A.F., a widower aged 71 who lived alone but had frequent contact with his neighbours, commented:

"I have good neighbours who would do anything for me and they pop in and see me every day."

However, when asked if he had any neighbours who would help in any way if he were ill, he said:

"Well, I don't think so. If I was taken to my bed I don't think they could help me because that is a responsibility, isn't it."

This finding of the perceived differences in the function of kin and neighbours has been noted in other studies, with neighbours often forming the primary source of assistance in an immediate emergency, and especially for

those who live alone, while kin are the major providers of long-term care and of assistance with personal care tasks (Litwak and Szelenyi, 1969; Croog, Lipson and Levine, 1972).

Table 37 Person(s) identified who would provide care if respondent was ill in bed for a week

Relationship	Married	Non-married lives with others	Non-married lives alone	All cats.
One person identified				
Spouse	105(74)	--	--	105(43)
Child	5(3)	11(32)	15(21)	31(13)
Sibling	2(1)	7(21)	6(9)	15(6)
Another relative	--	1(3)	1(1)	2(1)
Friend/neighbour	--	6(18)	9(13)	15(6)
More than one person identified	18(13)	4(12)	12(17)	34(14)
No care available	8(6)	5(15)	26(37)	39(16)
No answer	3(2)	--	1(1)	4(2)
Total	141(100)	34(100)	70(100)	245(100)

Summary

This section has pointed to important differences between those who live with others, which includes all the married people but only about one-third of the non-married people, and those who live alone, in terms of the availability of assistance and care. Single and widowed people who live alone were least likely to be able to identify anyone who would be able to assist with specified non-nursing tasks and also relied to a much greater extent on non-related people, and particularly on neighbours for assistance. With regard to the availability of care if the respondent was ill in bed for a week, it again appeared that such care was more likely to be perceived as being available to those who lived with others. However, the presence of others in the household does not mean that care will necessarily be available in times of illness, due to the poor health or other commitments of household members. Similarly, living alone does not necessarily mean that care will not be available in times of illness or that a person is

socially isolated. However, in general, it appears that married people and the small group of single and widowed people who live with others, are more likely to believe that assistance and care will be available in times of illness and are less likely to be on their own during the day, or to often feel lonely, than are single and widowed people who live alone. Those who appear to be most isolated and to have the greatest difficulties in times of illness are the single and childless widowed people who live alone and especially those who have few relatives and little contact with neighbours. Thus information on people's social contacts and on the perceived availability of assistance and care lends support to the view that non-married people as a group may have a greater social need for care than married people but also points to important differences between non-married people in terms of whether they live alone or whether they share a household with others.

8. PHYSICAL CHARACTERISTICS OF THEIR HOMES

The home circumstances of married and non-married people may contribute to their differential rates of hospital use not only through differences in the availiability of care but also as a result of differences in the physical characteristics of their homes. For example it is possible that poor living conditions and particularly inadequate heating may directly contribute to a greater clinical need for care, while it may also be the case that people are rererred to inpatient care or delayed in hospital if their home is perceived as lacking certain basic amenities or is regarded as inconvenient in other respects. This section therefore examines the physical characteristics of the homes of married and non-married people, while the influence of the patient's home environment on admission and discharge decisions is considered in the following section.

Type of accommodation and home ownership

Most people lived independently in private households, with the majority living in a house, followed by a bungalow with flats ranking third (Table C21). However twelve people lived in warden-assisted accommodation which consists of a group of self-contained flats or bungalows with a warden resident on the premises.

Over three-fifths of those who lived independently in private households were classified as owner-occupiers in that they or their relatives owned their own house, while of those who rented accommodation about one-half were in privately rented accommodation. As might be expected there was a marked variation in home ownership by type of dwelling, with 84 per cent of those living in bungalows being owner-occupiers compared with 58 per cent of those living in houses and under one-quarter of those living in flats (Table C22). There did not appear to be any marked differences in the type of accommodation or home ownership of married and single people. However, the widowed were more likely than other marital groups to live in institutional and in warden-assisted accommodation and of those who lived independently in private households a higher proportion were in rented accommodation, and particularly in rented flats, compared with married and single people.

Table 38 Type of accommodation and home ownership

Type of accommodation and home ownership	Married	Single	Widowed	Div/sep.	All cats.
Private household lives independently					
Owner-occupied	93(67)	15(65)	33(54)	3	144(62)
Local authy. rented	20(15)	3(13)	12(20)	4	39(17)
Privately rented	19(14)	4(17)	12(20)	3	38(16)
Tied to employment	7(5)	1(4)	2(3)	-	10(4)
Other	- -	- -	2(3)	-	2(1)
All types ownership	139(100)	23(100)	61(100)	10	233(100)
Private household - warden-assisted accomm.	2	-	10	-	12
All private households	141	23	71	10	245

Nearly three-fifths of those living in a private household had lived in their current home for ten years or more and a considerable number of people had lived there for thirty years or more (Table C23). However, 51 people, or approximately one-fifth, had spent less than five years in their present home. The proportion of people coming into this category was rather higher for the widowed (29 per cent) than for the married (18 per cent) or the single (8 per cent). This is probably due to the tendency for widowed people to move up to live with, or near, their children. However,, while about one-fifth of those interviewed had spent less than five years in their current home, about one-half of these people had moved from an address in the same locality. Thus only 10 per cent of those living in private households could be regarded as newcomers to the area in that they had lived in their present home for under five years and had previously lived outside the locality. (Table C24).

Household amenities

The presence or absence of certain household amenities, such as hot and cold water, an inside toilet, a telephone and central heating affects a person's everyday living but is probably particularly important in times of illness. Information on the availability of these four facilities was therefore obtained for all those living in private households, other than caravans and warden-assisted accommodation.

The number of households throughout the country which lack piped hot water and an inside toilet has steadily decreased as the older properties have been modernised or demolished, although there are still significant regional variations in the availability of these facilities. The figures for elderly people in the study were very similar to those for the county, with 9 per cent of the households having no hot water supply and 7 per cent having no inside toilet. As might be expected, about half the households which lacked one of these facilities also lacked the other; 5 per cent of the households lacked both a hot water supply and an inside toilet, while 6 per cent of the households lacked only one of these facilities. Households lacking a hot water supply or an inside toilet appeared to be fairly evenly distributed between marital groups, with 9 per cent of the non-married and 11 per cent of the married people living in households which lacked one or both of these amenities. However, as Table 39 shows, there was an important difference between non-married people living alone and those living with others; with the non-married people who lived alone being least likely to have these basic amenities in their homes.

A telephone is perhaps particularly important to elderly people, and especially to those who live alone and those who are restricted in their mobility. However, despite the importance of a telephone to elderly people and the possibility of one being provided in certain cases by the social services department, only just over one-half of the elderly people interviewed had a telephone in their home. The proportion of homes with a telephone was almost identical for single and for widowed, divorced/separated people but was slightly higher for married people. However, there again appeared to be an important difference between non-married people living alone, among whom 39 per cent had a telephone, and non-married people living with others for whom the figure was 65 per cent.

Table 39 Households with specified amenities

(Based on 230 private households and excludes caravans and warden-assisted accommodation)

Amenities	Households with specified amenities					All cats.
	Married	Single	Widowed div/sep.	Non-married lives with others	Non-married lives alone	
Hot water supply	130 (93)	22 (96)	63 (90)	34 (100)	51 (73)	215 (93)
Inside toilet	125 (89)	21 (91)	66 (94)	34 (100)	53 (90)	212 (91)
Telephone	81 (58)	11 (48)	34 (49)	22 (65)	23 (39)	126 (54)
Central heating	62 (45)	8 (35)	25 (36)	12 (35)	21 (36)	95 (41)

Percentages based on the number of people in each marital/household group

The fourth household characteristic considered was the type and adequacy of the heating. Central heating is gradually becoming more widespread and among the present group of elderly people, 41 per cent were living in centrally-heated homes, while 31 per cent relied on coal fires as their main source of heating. Altogether, 45 per cent of the married people were living in centrally-heated homes compared with about 36 per cent of both the single and the widowed, divorced/separated people. Unlike in the case of the other three amenities there did not appear to be any differences in the possession of central-heating between non-married people living with others and those living alone.

Although the majority of people were living in households which did not have central heating, 94 per cent of those living in private households stated they were able to keep their home warm. However, although most people had the means of keeping their home warm, 11 per cent added some qualification in terms of the cost of heating and many tried to restrict the amount of heat they used because of the expense. The proportions of single and of widowed, divorced/separated people who were either not able to keep their home warm or who mentioned problems of cost were identical (22 per cent) and was only slightly higher than the proportion of married people (14 per cent). There was, however, again a marked difference between non-married people living alone and those living with others in this respect.

Table 40 Whether able to keep home warm

(Based on 230 private households and excludes caravans and warden-assisted accommodation)

Whether able to keep home warm	Married	Single	Widowed div/sep.	Non-married lives with others	Non-married lives alone	All cats.
Yes - unqualified	118(86)	18(78)	54(77)	31(91)	41(69)	190(83)
Yes - cost mentioned	13(9)	3(13)	10(14)	3(9)	10(17)	26(11)
Not able to	6(4)	2(9)	6(9)	-	8(14)	14(6)
Total	137(100)	23(100)	70(100)	34(100)	59(100)	230(100)

So far, the possession of each of the four amenities - hot and cold water, an inside toilet, a telephone, and central heating - have been considered separately. However, as might be expected these amenities tended to be concentrated among households; with most of the households which lacked an inside toilet also lacking the other three facilities considered - those of hot water, a telephone

and central heating. Overall about 30 per cent of the households possessed all the four facilities considered, while on the other hand nine households (4 per cent) lacked all these facilities. As a group, non-married people living with others had the best housing conditions in terms of the facilities available in the household, with none of these people living in households with less than two of the four amenities considered. The relatively well-equipped homes of the single and widowed people who were living with others is probably partly because the inclusion of another adult member often increases the amount of money available to the household unit and may prompt the acquisition of certain facilities, such as a telephone if this has not already been installed. Also, in the case of the widowed a large proportion were sharing a household with a child, and in general people of a younger generation occupy more recently built or more fully modernised accommodation than do elderly people.

Table 41 Household by number of specified amenities*

(Based on 230 private households and excludes caravans and warden-assisted accommodation)

No. of amenities	Married	Single	Widowed div/sep.	Non-married lives with others	Non-married lives alone	All cats.
Has all 4 amenities	43(32)	6(26)	18(26)	11(33)	13(22)	67(29)
Has 3 amenities	48(35)	6(26)	22(31)	10(30)	18(30)	76(33)
Has 2 amenities	36(26)	9(39)	25(36)	12(36)	22(37)	70(24)
Has 1 amenity	5(4)	2(9)	1(1)	-	3(5)	8(3)
None of specified amenities	5(4)	-	4(6)	-	4(7)	9(4)
Total	137(100)	23(100)	70(100)	33(100)	60(100)	230(100)

* The amenities considered were hot water, an inside toilet, a phone and central heating.

Although a fairly large proportion of married people, and single and widowed people who lived alone, were living in households which were well provided for in terms of facilities, it was among these groups that those with the poorest housing conditions were found. The seventeen people whose home had none or only one of the four facilities considered consisted of ten married people and seven non-married people living alone. Many of these people were of quite advanced age with ten being 75 years or more. They had mainly been living in the same dwelling for over 30 years and in the case of thirteen people were living in accommodation which was privately rented or tied to their employment, or more commonly their former employment.

Inconvenience of housing

Besides obtaining information about the physical characteristics of their homes, people were asked for their subjective view as to whether there was anything about their home that they find inconvenient when they are ill. In reply, nearly one quarter stated that their home was inconvenient in some respect. Most people mentioned only one inconvenient aspect but nine people mentioned more than one feature which they regarded as inconvenient. This latter group included one person who stated, 'the whole house'. This person, a married man aged 70 years, had been living for 39 years in the same rented house which had only cold water and an outside toilet and which lacked a phone and central heating. Because of his difficulty in climbing stairs he had moved his bed downstairs.

The presence of stairs or steps was the characteristic of homes most often cited as inconvenient. In a few cases, steps between rooms on the ground floor caused difficulty but in most cases the difficulty was due to the need to climb stairs. Because of this problem nineteen people had moved their bed downstairs.

Table 42 Aspects of homes regarded as inconvenient

(Based on 230 households and excludes caravans and warden-assisted accommodation)

Aspect of home*	Number	Percentage of households
Stairs/steps	34	(15)
Outside toilet	10	(4)
No hot-water tap	8	(3)
Heating difficulties	7	(3)
Size, location	4	(2)
Garden	2	(1)
'Everything'	1	(-)

*Categories are not mutually exclusive

As might be expected, those with the fewest household amenities were most likely to regard their home as inconvenient. However, six of the seventeen people living in households which lacked three or more of the amenities listed in Table 39 did not regard their housing as inconvenient, while in the case of some who did regard their home as inconvenient this appeared to be because of the difficulties of stairs and steps rather than because of the absence of particular amenities.

The fact that some elderly people whose accommodation lacks certain basic amenities do not regard their housing as inconvenient may reflect the general expectations of people of this age and may also be associated with the considerable time many people had spent in their current home. Four of the six people in the study who regarded their home as convenient although it had none or only one of the four amenities considered, had lived in their present home for 30 years or more and none of them had lived there for less than 14 years.

Summary

This section has pointed to important differences between non-married people who live with others and those who live alone in terms of the facilities available in their homes. It appeared that single and widowed people living alone had less well equipped homes than married people, while single and widowed people living with others as a group were living in the most convenient housing in terms of the facilities available. Information on both the availability of assistance and care and on the physical characteristics of their homes thus identifies the non-married people who live alone as having the least favourable home environment.

9. HOME CIRCUMSTANCES AND HOSPITAL USE

This section looks at people's experience of hospitalisation and in particular at the extent to which their home circumstances, and especially living alone, influenced their hospital use. The relationship between a patient's home circumstances and their hospital use is considered both in relation to the reasons given by the reviewing physician for the patient's admission and discharge and in relation to the patient's account of how they managed after discharge.

Hospital bed use

Information provided in the previous two sections concerning the home circumstances of married and non-married people suggested that a distinction could be made between non-married people who live alone and those who live with others in terms of the availability of assistance and care and the physical characteristics of their homes. Those who lived alone were least likely to regard themselves as having someone to provide assistance and care in times of illness, and as a group had the least convenient housing in terms of the amenities available in their homes. With regard to the married people the main distinction appeared to be between those who lived in a household in which another household member was perceived as having good health and would probably be able to provide care in times of illness and those who shared a household with someone whose health was rated as fair or poor. An indication of the distribution of those interviewed between these categories is shown in Table 43 (col.1).

Table 43 Household composition and use of hospital in-patient care

Household composition and health of most healthy member other than respondent	(1) All admissions (a)		(2) Admission due to home circumstances/administrative factors		(3) Discharge delayed (b) due to home circumstances/administrative factors		(4) Discharged to another hospital for non-skilled care	
	non-married	married	non-married	married	non-married	married	non-married	married
Lives with others								
Excellent/good health	85	26	6	2	7	1	4	-
Fair/poor health	54	5	1	-	3	-	1	-
No answer	2	3	-	-	1	-	-	-
Lives alone	-	70	-	2		8	-	4
No follow-up interview	109	61	3	1	3	1	-	1
Total	250	165	10	5	14	10	5	5

(a) excludes the nine admission for whom no marital status was recorded
(b) excludes the one patient for whom no reason was given for his delayed discharge

As Table 43 shows, almost all the single and widowed people who were recorded as occupying a bed in the study wards because of their home circumstances or for administrative reasons were people who lived alone, with the fact that they lived alone generally being recorded by the hospital doctor as the reason for their initial, or continued, hospital use. A similar situation occurred in relation to non-married people discharged to another hospital for non-skilled care. In the case of married people the main reason for their admission or delay in the study wards, or their being transferred to another hospital for non-skilled care, was recorded as being that their spouse was unable to cope. The patient interviews indicated that only in three cases did their spouse usually have fair/poor health with the main factor responsible for the initial or continued hospital use being because their spouse was temporarily unable to provide care due to his/her health, or in a few cases because of other commitments. No specific reference was made on the review form to the physical characteristics of the patient's home as a factor influencing their hospital use. However, one widowed woman stated in the follow-up interview that her discharge from the study wards had been delayed because "the doctors didn't want me to go home because of the outside stairs." Thus it is possible that there was some under-recording of the influence of such considerations on hospital use. It is also possible that the small number of people who were recorded as being admitted or delayed in hospital because of the general state of health and activity restrictions of their spouse or because of the physical characteristics of their homes was in part because the hospital doctors were not often aware of these factors. However, what did emerge from the review was that living alone formed an important factor in admission and discharge decisions and especially in the case of very elderly patients, while in the case of married people an important determinant of hospital use was that of the temporary inability of their spouse to provide care due to their own health or other commitments.

It was not possible to analyse the length of time that all non-married patients spent in the study wards by whether they lived alone or with others, as information on household composition was only collected for people who were interviewed after discharge. However, an analysis of the number of days spent in the study wards of those interviewed after discharge showed that the average length of stay was almost identical for the 141 married people interviewed and the 34 single and widowed people who lived with others, with their mean stays being 10.2 and 10.9 days respectively. In contrast, the mean stay of the 70 single and widowed people who lived alone was 12.6 days. It was recognised that at least part of this difference may be due to differences in their clinical condition. Also, those interviewed after discharge necessarily formed a selected group in that they excluded patients who died in the study wards or

shortly after discharge and those who were re-admitted to hospital prior to the interview or who were staying with relatives. However, the finding that those who lived alone had a longer mean stay in the study wards, despite their younger average age, does lend support to the notion that people who lived alone were regarded as having special needs for care.

Experience of hospitalisation

Some indication of the experience of hospitalisation from the point of view of the patient was gained by asking them about the circumstances surrounding their admission, the appropriateness of their length of stay, and on how they managed on discharge. Three-quarters of the people interviewed reported that their admission to hospital had been an emergency. As might be expected, most people had been taken ill at home and in the majority of cases a household member had 'phoned for the general practitioner. Those who lived on their own and who were not able to contact the doctor themselves were faced with the greatest problems and in a few cases appeared to have waited until they were 'found' by a relative or neighbour:

> "Apparently they found me. I must have blacked out. My neighbour found me. I was unconscious. He had let himself in as they saw the curtains were not drawn." (Single woman aged 79 years).

> "Nurse West called and found me in such pain, so she called a doctor." (Widowed woman aged 78 years).

> "Neighbour called doctor when he found me having breathing difficulties." (Widowed man aged 80 years)

> "Neighbour 'phoned GP when she found me ill." (Widowed woman aged 68 years)

> "A friend came in and found me and called the doctor." (Widowed woman aged 78 years)

> "Neighbours wondered why he had not collected their paper. They both went to work and during the morning the neighbour felt worried, so left his work to come back and check on him. They found him unconscious and sent for the doctor." (Widowed man aged 75 - reported by daughter)

Information on admission to hospital thus provides further evidence on the difficulties experienced by those who live alone and of the important role of neighbours in ensuring that their needs are made known. Delay in contacting medical attention while arising from a patient's home circumstances may in turn result in their having a greater clinical need for hospital care, due to the deterioration in their condition caused by the delay.

Information on people's perception of their length of hospital stay was

gained by asking all those who were not in hospital at the time of the interview whether they thought they had stayed in hospital for 'longer than necessary', for 'less time than necessary' or for 'about the right length of time'. It was recognised that there is a tendency, and especially among elderly people, to accept, often unquestioningly, whatever course of action is prescribed by those in authority and especially by those with specialist knowledge, and that this might result in their choosing the response, "about the right time". However, six medical patients chose the response, "Longer than necessary", while thirty patients, representing just over one-tenth of both the medical and surgical patients questioned, chose the response 'less time than necessary'. When asked why they chose the response "Longer than necessary", one person said that he thought his discharge had been delayed because of the doctors' work-to-rule, while another person reported that she had been delayed because of her home circumstances. The other four people who chose this response did not appear to feel that their discharge had been delayed but instead expressed general feelings of discontent about having been admitted to hospital at all and explained they had, "had too much of hospitals". In contrast, those who thought they had been in hospital for "less time than necessary", mainly spoke of the possible benefit of a longer period of hospital care in aiding their recovery and explained that they did not feel fit on returning home. Nearly all these people had been discharged home directly from the study wards.

> "I feel I wasn't capable of coming home when I did. I was surprised when they said I could go."
>
> "I could have done with a few days more. I can hardly get about now."
>
> "They only got me up once before I was sent home. I had to go to bed as soon as I got home. Then had to stay in bed over a week. I am still very shaky and have to have an afternoon nap."

Although the numbers were fairly small, it appeared that a rather larger proportion of married than non-married people thought they had been in hospital for less time than necessary with the proportions being 15 and 10 per cent respectively. As Table 44 shows, there appeared to be little difference between non-married people who lived alone and those who lived with others in their views on their length of hospital stay. However, it must be remembered that non-married people who lived alone experienced the longest mean stay in the study wards and were the most likely to have been discharged to another hospital, thus increasing their total length of stay.

Table 44 Views on length of hospital stay
(excludes the 14 patients who were still in hospital at the time of the interview)

Views on length of hospital stay	Married	Non-married lives with others	Non-married lives alone	All cats.
Longer than necessary	4(3)	- -	2(3)	6(3)
Less time than necessary	20(15)	4(12)	6(9)	30(13)
About right time	109(81)	28(87)	56(86)	193(84)
No answer	1(1)	- -	1(1)	2(1)
	134(100)	32(100)	65(100)	231(100)

After discharge

Of the people interviewed, 34 (14 per cent) were discharged to another hospital. Most of the others went directly from the study wards to their usual home but thirteen went to a relative's home and three to a friend's home. It is, however, possible that those who went to a relative's home and particularly those who stayed there for more than two weeks are rather under-represented among those interviewed due to the difficulty in locating such people.

Almost all the married people interviewed went directly to their own home on leaving the study wards. Among non-married people there was a difference in the place of discharge between those who lived alone and those who lived with others. As in the case of married people, most of the single and widowed people interviewed who lived with others returned directly to their own home on leaving the study ward, whereas single and widowed people who lived alone were more likely to be transferred to another hospital and to go to a relative's home. As the hospital review indicated, in many cases an important factor in the decision to transfer a patient to another hospital was the fact that they lived alone. Widowed people who went to a relative's home mainly went to stay with their married son or daughter, although three widowed people went to their sister's home and one to a niece, while in the case of two single people one went to stay with her sister and the other with her niece. There did not appear to be any general relationship between the patient's place of discharge and the amenities available in the patient's home. However, it is possible that the relationship between a patient's place of discharge and the physical environment of their home might be greater in the winter months than during the study period which covered the spring and early summer months.

Table 45 Place of discharge from the study wards of the patients followed-up *

Place of discharge	Married	Non-married lives with others	Non-married lives alone	All cats.
Usual home	127(90)	29(85)	37(53)	193(79)
Relative's home	-	-	13(19)	13(5)
Friend's home	1(1)	-	2(3)	3(1)
Another hospital	12(8)	5(15)	17(24)	34(14)
Nursing home	1(1)	-	-	1 -
Other	-	-	1(1)	1(1)
Total	141(100)	34(100)	70(100)	245(100)

* Refers to the 245 people interviewed who usually lived in a private household

At the time of the interview fourteen people were still in hospital and four in a nursing home. The 227 people who were no longer in a medical facility were asked about how they had managed after coming out of hospital and particularly during the first week after discharge. Most people reported that they had needed to take things easily after leaving hospital and a few had not undertaken one or more of the tasks specified in Table 46 at the time of the interview. Of those who had undertaken these tasks the majority had done them without assistance, although some people reported that they had experienced difficulty and had needed to proceed very slowly. The number of people who had received assistance was fairly small, except in the case of having an overall wash or bath, with nearly 30 per cent receiving assistance with this task during the first week after discharge. It is difficult to draw firm conclusions from the data presented in Table 46 concerning the relative needs for care of married and non-married people, for it is recognised that the reporting of difficulty in undertaking these tasks may be influenced not only by a person's physical condition but also by differences in people's perceptions and in the availability of assistance. However, such data does indicate that people living alone, who appear as a group to have the fewest social supports and the least favourable housing conditions, did not perceive themselves as having particular difficulties in managing after discharge from hospital. This may be partly due to the fact that as a group they were most likely to enjoy good health and may therefore have achieved a more rapid recovery. In addition, a greater proportion of those who lived alone and who were perhaps most likely to have had difficulty

Table 46 Performance of specified personal care tasks during the first week after discharge from hospital

(excludes the 18 people who were still in a medical institution at the time of the interview)

Ability and assistance	Married	Non-married lives with others	Non-married lives alone	All cats.
Dressing & undressing				
No help - no difficulty	93(68)	23(72)	50(85)	166(73)
No help - some difficulty	11(8)	2(6)	5(8)	18(8)
Had help - not usually helped	10(7)	3(9)	4(7)	17(7)
Had help - usually helped	7(5)	2(6)	- -	9(4)
Not done yet	15(11)	2(6)	- -	17(8)
Total	136(100)	32(100)	59(100)	227(100)
Washing hands and face				
No help - no difficulty	113(83)	25(78)	54(91)	192(84)
No help - some difficulty	7(5)	3(9)	1(2)	11(5)
Had help - not usually helped	13(10)	3(9)	4(7)	20(9)
Had help - usually helped	3(2)	1(3)	- -	4(2)
Not done yet	- -	- -	- -	-
Total	136(100)	32(100)	59(100)	227(100)
All-over wash or bath				
No help - no difficulty	78(57)	18(56)	44(75)	140(62)
No help - some difficulty	10(7)	3(9)	4(7)	17(7)
Had help - not usually helped	31(23)	7(22)	8(14)	46(20)
Had help - usually helped	12(9)	2(6)	2(3)	16(7)
Not done yet	5(4)	2(6)	1(2)	8(3)
Total	136(100)	32(100)	59(100)	227(100)
Shaving (men) Brushing & combing hair (women)				
No help - no difficulty	119(87)	28(87)	57(97)	204(90)
No help - some difficulty	8(6)	- -	- -	8(3)
Had help - not usually helped	3(2)	1(3)	- -	4(2)
Had help - usually helped	4(3)	2(6)	- -	6(3)
Not done yet/not applicable	2(1)	1(3)	2(3)	5(2)
Total	136(100)	32(100)	59(100)	227(100)

on returning home were transferred to another medical institution, or went to stay with relatives, rather than returning directly to their own home. As Table 46 shows the married people reported a fairly similar level of difficulty to single and widowed people who lived with others, although they experienced rather greater difficulty and received more assistance than did the group of non-married people as a whole.

A large proportion of people reported receiving help with shopping, cooking and other household tasks after their discharge from hospital. Altogether 79 per cent of those who usually did the shopping received assistance with this, 55 per cent of those who usually did the cooking received help with this and 67 per cent reported receiving help with other household tasks. There appeared to be little difference between those who lived alone and those who lived with others in terms of whether or not they had received assistance with these tasks. However, it is possible that there were differences in the amount of help received. As might be expected, married people were mainly assisted by their spouse and the widowed by a daughter, while friends and neighbours played an important role in assisting with shopping for those who lived alone. In addition, those who lived alone were most likely to have received assistance from the community services.

Questions concerning the use of a wide range of community services indicated that 30 per cent had received at least one visit from a district nurse since their discharge from hospital, but only a small proportion (14 per cent) said they had received any other type of community service. However, a few people commented that they were expecting to receive a particular service, while a small number reported that they had been offered a service, mainly a home-help or meals-on-wheels but had refused it. Those who lived alone were most likely to have received meals-on-wheels and/or a home help, although as a group they had spent less time at home prior to the interview. Many of the single and widowed people who had received these services after coming out of hospital were normally in receipt of such services, while in other cases the fact that a patient lived alone formed an important factor in such services being arranged by the hospital personnel or general practitioner on their discharge from hospital.

Table 47 People who received specified services after discharge from hospital

(excludes the 14 people in hospital at the time of the interview and the 4 in a nursing home)

Service	Married	Non-married lives with others	Non-married lives alone	All cats.
District nurse	34(25)	14(44)	23(39)	71(31)
Home help	7(5)	-	14(24)	21(9)
Meals-on-wheels	4(3)	-	7(12)	11(5)
Laundry service	-	-	2(3)	2(1)
Day centre	-	1(3)	-	1
Voluntary services	3(2)	-	-	3(1)
Total number in each marital group	136	32	59	227

Percentages are based on the total number of people in each marital group. Categories are not mutually exclusive, with some patients receiving more than one service.

Summary This section has examined the relationship between the patients' home circumstances and their hospital use. It has shown that the absence of other household members formed an important factor in medical decision-making and was the main factor responsible for single and widowed people being delayed in hospital or discharged to another hospital for non-skilled care. The other main factor which appeared to result in people being delayed in the study wards for social reasons or discharged to another hospital was that household members were temporarily unable to cope due to their own health or their other commitments. Rather less emphasis appeared to be placed on the general ability of household members, and especially a patient's spouse, to provide care due to their age and activity restrictions, or to the amenities available in their homes. However, it is possible that greater attention is paid to the physical characteristics and amenities available in a patient's home during the winter months. Probably because those who lived alone were more likely to be discharged to another hospital and to receive assistance from the social services after returning home, they did not appear to experience any more difficulties than those who lived with others after their discharge from hospital. Indeed there was some evidence that married people experienced the greatest difficulties as they were more likely to share a household with a person of advanced age than were non-married people who lived with others and were less likely to be transferred to another hospital or to receive community services than were non-married people who lived alone.

VII DISCUSSION AND RECOMMENDATIONS

DISCUSSION AND RECOMMENDATIONS

This section begins by examining the use of a hospital utilisation review as a research tool in the light of the experience gained in the present study and considers some of the insights gained from the review with regard to the interpretation of the routinely collected hospital statistics. It then examines the relationship between marital status and hospital use in relation to data from both the hospital review and follow-up interviews and points to some of the implications of these findings. Finally the question of the type of facility and services necessary to cater for elderly people in times of illness and thus reduce their need for admission to or retention in an acute bed is considered.

Utilisation reviews as a research tool

The review carried out in the present study provided an opportunity of developing a method of review which could be set up and run by the hospital personnel to gain information about the use of beds in a particular facility. The experience of the present review suggested that the design and method of organisation was such that it could easily be set up and carried out by the hospital staff. However, attention was drawn to several factors which should be borne in mind in setting up such a review. One such factor is that of the involvement of the hospital staff. Although the restricted length of the review form and the fact that it was kept in the patient's case notes meant that the amount of time spent in completing the review form was quite small, the method of reviewing patients at different points during their hospital stay does require the participation of the hospital staff over a considerable period of time. Thus it is important for the success of the data collection that the staff should attach importance to the review and are prepared to co-operate on a regular basis over a specified period. Another important factor to take into account in undertaking such a review and especially in having the junior doctors act as reviewers is that of their turnover. In a situation of fairly high turnover due to holidays, study leave and the movement to new posts it is likely that only a fairly small proportion of the junior doctors will be present continuously from the setting up through to the conclusion of the study. This means that new staff will need to become involved in an on-going study. While this should not form a major difficulty, it does require the close monitoring of changes in personnel and depends on the co-operation of new junior doctors to participate in an on-going review.

The experience of carrying out the present review also served to draw

attention to the difficulty of making comparisons between the findings of the various ad hoc reviews of hospital use which have been undertaken. In the present study 10 per cent of the medical and 5 per cent of the surgical admissions were recorded as being admitted or delayed in the study wards for social or administrative reasons. These figures were shown to be at the lower end of the range of findings reported by other reviews of hospital use. The findings of hospital reviews may suffer from defects in the recording. However, the main factors which account for the varying findings of hospital reviews were identified as being 'real' differences, due to factors associated with the setting of the study, and 'apparent' differences due to factors associated with the design of the review. With regard to the present study it was suggested that the fairly small proportion of patients recorded as being admitted due to social/administrative factors in part reflected the existence of a high clinical threshold for admission due to the pressure on beds and the powsibility of admitting some patients with a fairly high social need but low clinical need for care to a geriatric hospital or to another acute hospital in the area. Similarly, it appeared that the small proportion of patients who were recorded as being delayed in the study wards largely reflected the relatively short lengths of stay, and hence the presumably incomplete recovery on discharge. The short mean stay of the surgical admissions was associated with a high rate of transfer to other hospitals, which appeared to be accomplished with the minimum of delay in the study wards. In only one case did there appear to be a 'bed blocker' who was retained in the study wards because no alternative accommodation could be arranged. The main aspect of the design of the review which was regarded as influencing the proportion of patients recorded as being admitted or delayed in the study wards was that of the criteria used in assessing hospital use. The present study was primarily concerned with examining the extent to which hospital use arose from a consideration of the patient's home circumstances. However the results would have been very different if the patient's need for acute care as opposed to care in a lower level facility had been considered. The analysis of the factors which influence the findings of a review thus points to the difficulties of interpreting and comparing the results of the different reviews that have been undertaken and in particular of determining the extent to which differences in the findings of the various ad hoc studies reflects real differences in the hospital setting and in the patient population. A greater understanding of the relationship between the characteristics of the hospital and the use of beds thus requires that a standardized method of review be employed in different

types of setting. In addition, the present study indicated that a full understanding of the reasons for a patient's admission must take into account the referral behaviour of general practitioners, for it is the general practitioner who selects some patients and not others for referral to hospital and who may influenc the hospital doctor's decision as to the patient's need for in-patient care on clinical and/or social grounds.

Interpretation of routine hospital statistics

The review carried out in this study involved following individual patients through the course of their hospital stay and served to provide information on the total hospital use of patients in the study population. In particular it drew attention to the difference between the length of stay in a particular facility and a patient's total hospital stay in situations in which there is a high rate of transfer between hospitals. This points to the importance of taking the rate of transfer into account when making comparisons between lengths of stay over time or between firms, hospitals, or geographical areas, as the routinely collected data relates only to a patient's stay in a particular facility. The review also drew attention to the fact that while the routine data relates to admissions to a particular facility and does not allow such information to be linked to patients, a considerable portion of the total hospital admissions are due to individual patients experiencing more than one episode of in-patient care during a specified period or to their being transferred between hospitals. Further information on the characteristics and needs of those admitted on more than one occasion during a specified period would provide a greater understanding of the extent to which hospital use is concentrated among particular groups of people and on the reasons for multiple admissions. It might be possible to follow-up this question on a modest scale through examining the case records of those admitted to the study population and identifying the number of periods of hospitalisation they experienced and the reasons for their re-admission over a twelve-month or two-year period.

Bed use in the study wards

The review showed the expected pattern in relation to the rates of admission of married and non-married people with the rates being higher for the latter group. However, whereas the national HIPE data showed that non-married people had a greater average length of stay than married people, in the study wards this only held for men admitted to the medical wards. With regard to the use of beds in the study wards the review indicated that married as well as non-married people were admitted or delayed in the study wards due to their

home circumstances and that there were no marked differences between marital groups in this respect.

One of the important questions posed by the review is that of the reason for the lack of the expected pattern in relation to the relative lengths of stay of married and non-married people in the study wards and for the absence of any marked differences between marital groups in their occupancy of beds for primarily social reasons. The special tabulations of the HAA data for the South East Thames region indicated that the higher rate of use by non-married than by married people occurred in the acute as well as in the long-term sector. However, the present study suggests that such differences are not distributed evenly between hospitals. It is hypothesized that the differences in the rates of hospital use by married and non-married people and the extent to which non-married people occupy hospital beds for primarily social reasons will be greatest where there is a fairly low clinical threshold for admission and a high level of recovery is expected on discharge. It is difficult to assess the level of such thresholds, but information concerning the length of stay in the study wards and the use of other hospitals in the district, both as an alternative to admission to the study wards and as a pre-discharge hospital, suggests that the study wards were characterised by a fairly high clinical threshold for admission and a relatively low level of recovery at the time of discharge. Thus, it is likely that the small amount of bed use in the study wards recorded as being due to the patient's home circumstances and the lack of any marked variation between marital groups in this respect reflects the particular characteristics of the study wards and the availability of alternative facilities. Such relationships between bed use and the characteristics of the study hospital and local area can at present only be stated in fairly broad terms but it is hoped to look more closely at this issue by comparing the rates of admission and lengths of stay of married and non-married people in hospitals with different overall lengths of stay and rates of transfer using the routinely collected hospital data.

Clinical and social needs of married and non-married people

In the Introduction three possible causes of the higher rate of hospital use by non-married compared with married people are identified. One possible cause is that non-married people have a greater clinical need for hospital care, with evidence in support of this being provided by national morbidity data and information on self-perceived morbidity collected in the General Household Survey. Secondly, it is possible that married people have a greater unmet clinical need for hospital care due to differences in their illness behaviour and thirdly, the higher rate of use by non-married people may

be due in part to the medical profession's perception of the greater social needs of non-married people. The present study mainly focused on the question of the social needs for care of married and non-married people but provided some information with regard to their morbidity experience. Information on the self-perceived morbidity of patients interviewed did not provide any support for the notion of the greater clinical need for care of non-married people, although it was recognised that this may be largely because of the timing and nature of the group interviewed, with these being patients recently discharged from hospital. In addition attention was drawn to the difficulty in interpreting such data due to differences in people's attitudes and general expectations. However, while the present study did not provide any direct evidence of variations in morbidity between marital groups it pointed to a number of aspects of the environment of non-married people which may contribute to their morbidity; one such factor is that of the adverse effect of bereavement on the health of widowed people, which in a number of cases appeared to have led to the increased use of medical services. Other factors which may contribute to the morbidity of non-married people and especially those who live alone is that as a group they have less favourable housing conditions and have greater difficulty in contacting assistance in an emergency situation. Indeed, about a dozen people who lived alone and who reported that their admission to hospital had been an emergency explained that they had needed to wait until they were 'found'. While the effects of such delays are not known it is possible that they contributed to the severity of the condition and the need for hospital in-patient care.

With regard to the distribution of social needs for care, the hospital review indicated that both married and non-married people were perceived by the medical profession as requiring hospital in-patient care because of their home circumstances. In the case of married people this was mainly perceived to be due to the temporary inability of their spouse to provide the necessary care, while in the case of non-married people it was mainly because they were of fairly advanced age and lived alone. The follow-up interview provided detailed information on the home circumstances of married and non-married people and suggested that married people as a group may have had greater unmet social needs for care than did non-married people. For example, the proportion of people who thought they had been in hospital for less time than necessary was greatest among the married. In addition, of those living in multi-person households the married were most likely to be living in a household where the youngest household member apart from the respondent was aged 70 years or more and in a large proportion of cases it was thought that this household member

would have considerable difficulty in providing assistance in times of illness due to his/her age and activity restrictions.

With regard to the home circumstances of non-married people it appeared that the most important distinction was between those who lived with others and those who lived alone. Single and widowed people who lived alone as a group lived in the poorest housing conditions in terms of the amenities available in their homes. In addition they were the most likely to be on their own during the day and were least likely to perceive that assistance and care would be available in times of illness. However, those who lived alone appeared less likely than married people to regard their hospital stay as being shorter than necessary and and reported relatively few difficulties on discharge. This appeared to be due to the longer average hospital stay of single and widowed people who lived alone compared with other groups and to the fact that they were likely to be discharged to a relative's home and to receive social services when they returned to their own home.

Information on the social circumstances and hospital use of married and non-married people therefore indicates that attention should be paid in admission and discharge decisions to the home circumstances not only of those who live alone but also of elderly married people, and especially those of very advanced age. In particular, it might be useful if information on the abilities of other household members were recorded by the medical personnel as a means of identifying those who may have special social needs for care. It is recognised that many doctors do collect such information but it might be useful to introduce this as a standard practice, and perhaps to incorporate a question as to whether or not a person lives alone on the HMRI form which is completed routinely for each hospital admission. In addition, the finding that married people may have a considerable unmet need for social care draws attention to the need recognised by the 1970 Seebohm Report for the social services to support family members in caring for the sick rather than to be merely seen as a substitute for those who lack relatives or live on their own (Committee on Local Authority and Allied Personal Social Services, 1968).

With regard to the future composition of the population, projections to the end of the century suggest that the main change will be in the decrease in the proportion of single people and an increase in the proportion of divorced people, but the overall proportion of non-married people among the elderly is expected to remain fairly stable and to account for about one-half of those aged 65 years and over (Office of Population Censuses and Surveys, 1977).

It is difficult to determine how the marital composition of the population will affect household structure, and particularly the prevalence of one-person households, as marital state represents a legal condition but forms only one element in household composition, with the most important factor being that of behavioural patterns. However, to the extent that the proportion of single people among the elderly decreases and divorce and remarriage increases, people will experience more changes in their marital state over their life-span and the difference between married and non-married people in terms of their economic and social circumstances may become less marked. Similarly, the increasing extent to which women of all marital states engage in gainful employment will probably serve to reduce the economic differences between married and non-married people. These trends therefore suggest that differences between elderly married and non-married people in terms of their economic and social circumstances are likely to decrease. However, the same groups of people as were identified the present study are likely to have the greatest social needs for care - namely non-married people living alone, and especially those who have few relatives, and people sharing a household with an elderly person with severe activity restrictions.

Marital state, household composition and the need for acute hospital care

The review of the literature concerning the possible causes of the differential rates of hospital use by married and non-married people, together with evidence from the present study, suggests that a substantial part of the variations in hospital use between marital groups revealed by the analysis of HIPE and HAA data is due to the greater use of hospital beds by non-married people for primarily social reasons. This suggests that the differences in the rates of bed use of married and non-married people should not be regarded as an indicator of their needs for the treatment and care that is only provided in an acute hospital. However, on the assumption that there is not a significant amount of unmet need for social care among married people, the higher rate of hospital use by non-married people demonstrated by the routine statistics may be regarded as an indicator of their greater general need for care from the official services.

An important question which is often raised is that of whether household composition, and especially the presence or absence of other household members, is the key variable rather than marital state in the differential rates of hospital use of married and non-married people. In particular it is pointed out that while non-marriage cannot be equated with living alone, a high proportion of single and widowed people do live in one-person households. For example in

Great Britain, 1971, less than 2 per cent of both married men aged 65 years and over and married women aged 60 years and over were recorded as living alone, while the proportions for single and widowed/divorced people were 68 and 46 per cent respectively for men aged 65 years and over and 81 and 52 per cent respectively for women aged 60 years and over.

One way of examining the influence of the presence or absence of other household members on the differential rates of hospital use of married and non-married people is the look at the causes of such variations. Insofar as these differences arise from beds being occupied for primarily social reasons it appears that the main reason for such use by single and widowed people is the fact they live alone rather than their marital condition per se, although it is recognised that non-marriage increases the chances of a person living alone. However, whereas living alone forms a primary reason for the occupancy of hospital beds by single and widowed people for primarily social reasons, living alone probably exerts less direct effect on the clinical needs for care of married and non-married people.

Two hypotheses have been put forward to account for the higher morbidity and mortality rates of non-married people. One hypothesis is the selection hypothesis which postulates that those who are least fit and carry therefore the greatest morbidity and mortality risks are more likely to be selected out of marriage and to remain single than are those who enjoy good health. The fact that age specific mortality rates ironically show the greatest excesses of single over married deaths in the younger (marriageable) age groups is important confirmation of the selection effect, while selection may also operate at older ages to ensure that those who remain widowed or divorced remain in a non-married state (Zalokar, 1960; Medsger and Robinson, 1972). To the extent that such selective processes operate, the morbidity experience of married and non-married people can be directly associated with marital state, with marital state forming the dependent variable. An alternative hypothesis to explain the differential morbidity of married and non-married people is that of the unfavourable environment hypothesis. This hypothesis takes a number of forms but postulates in essence that there is something about the married state that enhances health and well-being, and conversely, that there is something about the non-married state that threatens health and precipitates illness and death. One way in which marriage, or the absence of marriage, may affect health is through the behavioural expectations of people occupying various marital statures. For example, it may be the case that those occupying the married status tend to enjoy better health because their status is more socially acc ptable, which has the effect of reducing stress. Thus Gove explores the possibility that,

"psychological states and life styles associated with the different marital roles in our society affect life choices with respect to selected types of mortality". (Gove, 1973). However, as he points out, the protective effect of the married role may differ between men and women, and afford less protection for women due to the greater risk of role conflict. Another way in which marriage is thought to exert a protective effect on health is through the presence of close emotional ties with a partner. The presence of strong social supports, and especially close emotional ties, has been shown to be an important factor in precluding the effects of stresses on health (Kaplan, Cassel and Gove, 1977; Pilisuk and Froland, 1978). Such ties have also been demonstrated to have a positive effect on rehabilitation and recovery (Litman, 1968). While the presence of strong emotional ties with a marital partner may have a positive influence on health, the break-up of marriage through the death of one partner has been shown to have an adverse effect on health. Thus there is evidence that the emotional impact and subsequent stress resulting from bereavement is associated with increased morbidity and higher mortality rates among the widowed, with such effects being particularly pronounced during the early months of bereavement (see pages 66-68). While it is possible to point to a number of ways in which the marital role or marital relationship may exert a positive or negative effect on health it may also be the case that the marital relationship serves as a risk factor or confers immunity in relation to specific conditions. For example there is evidence to suggest that cervical cancer is associated with sexual activity, and particularly the age at which regular intercourse starts, while conversely childbearing appears to offer some immunity to breast cancer (Logan, 1953). However, while it is possible to identify ways in which the presence or absence of marriage may affect health, it must be remembered that a person's legally defined marital condition may not determine their behavioural patterns and living arrangements. In addition, while the environment of married people may generally serve to promote health it may also exert an adverse effect on health. Thus divorced people, and especially divorced women, have been found to be healthier than the unhappily married (Renne, 1971). In addition, while specific aspects of the marital role and marital relationship may have a direct effect on health it is likely that the presence or absence of another household member, irrespective of their relationship, may be conducive to an environment which is favourable to health. For example, living with others may contribute to regularity in patterns of eating, sleeping and working (Shurtleff, 1956). Also, as the present study showed, elderly people who live alone as a group have less favourable housing conditions than those who live with others and are more likely to live in privately rented accommodation and in households lacking basic amenities. It is also known that household members form an important source of advice in

illness situations and generally serve to legitimise the occupancy of the sick role (Twaddle, 1969; Robinson, 1971; Booth and Babchuk, 1972). Thus it can be hypothesized that the absence of household members may give rise to differences in illness and sick role behaviour. In addition, the present study showed that the absence of other household members may pose problems in contacting assistance in emergency situations and lead to substantial delays.

This brief examination of the possible causes of the greater clinical need for care of non-married people and their greater use of hospital in-patient care for for primarily social reasons suggests that while living alone probably forms a major factor in the higher rates of hospital use by non-married people but cannot entirely explain such variations. This is because important elements in the differential mortality rates and clinical needs for care of married and non-married people appear to be those of the selective effect of marriage and remarriage on the relative levels of health of married and non-married people and the direct influence of the marital role and marital relationship on the morbidity and mortality patterns of marital groups. Thus marital state can be regarded as having a direct effect on the clinical needs for hospital care of married and non-married people through its influence on morbidity patterns as well as forming an important determinant of household composition and thus of perceived social needs for care.

Alternative provision

The present study was set up to examine the causes of the higher rates of hospital use by non-married compared with married people with one of the fundamental concerns being that the higher rate of use of acute hospital beds by non-married people may be due to their being more likely to occupy beds for primarily social reasons. This in turn raises questions as to the appropriateness of resource use and particularly of the alternative facilities and services that might be required to reduce the extent to which acute hospital beds are used by people who do not require the full medical facilities of an acute hospital. The two main substitutes for acute hospital care for elderly people during a short episode of illness of the type that is not judged to normally require admission or retention in a district general hospital are care at home, or care in a lower level residential facility. Care at home largely relies on the provision of care by family members. The question of the extent to which the contemporary family is and should be providing such care is a perennial issue (Moroney, 1976). However, despite the concern that the contemporary family may be neglecting its responsibilities and handing over its caring role to the state, there is evidence of a substantial involvement of

family members in caring for the sick. For example, despite the increasing proportion of elderly people in the population from 4.7 per cent of the population in England and Wales in 1901 to 13.3 per cent in 1971, the proportion of elderly people in institutions has declined from 5.17 per cent in 1911 to 2.88 per cent in 1973 (Moroney, 1976, table 3.13). Many of those being cared for by family members are heavily dependent and require substantial amounts of assistance and care. For example, Harris estimated that 711,000 non-institutionalised elderly people in England and Wales were handicapped, of whom nearly one-half were very severely or severely handicapped (Harris, 1971, p.24). Similarly, it has been estimated that in 1970, 62.5 per cent of the severely mentally handicapped were not institutionalized, with the majority of these people living with their families (Moroney, 1976, table 4.8). If one looks at the figures in terms of those providing care, one finds that in 1965, 5 per cent of all women aged 16-64 years were responsible for the care, to a greater or lesser extent, of at least one elderly or inform person in their households and 6.3 per cent were responsible for at least one person outside the household but that less than one per cent were responsible for persons both inside and outside the household (Hunt, 1968a). In addition to the assistance provided by the younger generation, either on a temporary or permanent basis, many elderly married people are caring for a dependent spouse and thus enabling them to continue living in the community and are also generally relied on to be the major provider of care during a period of acute illness. Thus contrary to a widely held belief that the family has shifted its responsibilities for the care of the sick to the state, the evidence suggests that family members are heavily involved in this task, and indeed it may be the case that demands for care by family members have acutally increased due to the advances in medical knowledge which make it possible for people to continue to live with severe disabilities. In addition, the availability of new technology and medical procedures means that family members may be actively involved in treatment, as in the case of renal dialysis, rather than merely providing non-skilled care.

Changes in policy or the provision of services which increase the extent to which family members are relied on to care for the sick, either in terms of the care of the chronically sick or the short-term care of those with an acute illness need to take into account both the availability and ability of family members to perform this role, and also the cost in both social and economic terms to the patient's family. With regard to the availability of relatives it must be remembered that some elderly people lack relatives, and particularly single and childless widowed people, while in other cases their relatives may be unable to cope due to own health or other commitments. Present trends suggest that the availability and ability of relatives to provide care will become increasingly

restricted in future years, due in part to the increase in the proportion of very elderly people, for while the proportion of elderly people in the population is likely to remain fairly stable there is expected to be a 35 per cent increase in the proportion of those aged 75 years and over by the year 2001. There is therefore likely to be an increase in the porportion of elderly people who suffer from severe activity restrictions, for increasing age is associated with an increasing level of morbidity. In addition, the improved treatment of acute conditions may well result in a greater level of chronic illness, thus increasing the dependency of the elderly population. These trends suggest that there is likely to be both an increase in the proportion of people requiring assistance and care, and particularly during episodes of illness. However, the extent to which relatives, and particularly elderly spouses, are able to provide such care will also be restricted by their age and activity limitations. Indeed, it must be remembered that the eldest child of an 85-year old person may be 65 years old themselves. In addition to the restrictions arising from the age and incapacity of relatives it is also possible that the pool of potential caretakers will be further restricted by a larger proportion of married daughters being engaged in gainful employment.

Besides the question of the availability of relatives, there is also the question of the social costs of providing home care in times of illness. Caring for sick people may sometimes place an intolerable burden on the physical and mental health of relatives and especially in cases of chronic illness and disability and psychiatric disorder. In addition the long-term care of sick people may have a disruptive effect on the family unit (Isaacs, 1971; Cresswell and Parker, 1972; Stevens, 1972; Sainsbury and Grad de Alarcon, 1974). Thus it is important in designing policies which increase the extent to which the family is relied on to provide care to take into account both the availability and abilities of family members to undertake this role and the social costs it places on the family group. While care by family members may be supplemented by assistance from the official services in the form of visits by a district nurse, a home-help or meals-on-wheels, home-based care essentially places the main burden of care on family members. Thus it is likely that in the absence of alternative lower-level facilities many patients will be regarded by the medical practitioner as 'needing' an acute hospital bed, although it is recognised that they do not require the full medical facilities of a district general hospital.

Care in an intermediate facility may form an alternative to both home-based care and acute hospital care during an episode of temporary acute illness or in the case of terminal illness. The main types of intermediate care facilities

available in this country are nursing and convalescent homes, which provide primarily nursing care, and community or general practitioner hospitals. Nursing homes at present play a fairly limited role in the NHS and are mainly independently-run facilities. Altogether there are about 1,200 registered independent nursing homes with a capacity of 32,000 beds, or about 8-9 per cent of NHS hospital capacity (Davis, 1978). These homes are oriented to the long-term care of the elderly rather than providing short-term and pre-convalescent care, with this role being undertaken in convalescent beds associated with a hospital or in a separate convalescent home. The number of beds designated as convalescent or pre-convalescent beds is however fairly small, with there being only about 4,300 convalescent beds in annexes to or units of a main hospital in England and Wales, 1976, and 1,200 beds for convalescent patients in convalescent homes, department or annexes (Institute of Health Service Administration, 1976).

Community or 'general practitioner' hospitals provide a greater element of medical care than do nursing and convalescent homes. However, while these different facilities have distinct roles, there is some overlap in their function, with both types of facilities providing continued nursing care for patients discharged from a district general hospital. Considerable uncertainties have surrounded the development of GP/Community hospitals in terms of both their place in the provision of health care and in the role they should perform. However, despite the move towards the integration and consolidation of hospital facilities into a central district general hospital (Ministry of Health, 1962), community hospitals continued in existence and have developed in different ways in relation to local needs and services (Israel and Draper, 1971; Bennett, 1974). The importance of GP/Community hospitals was officially acknowledged in 1974 in the publication of Community Hospitals: their role and development in the NHS (DHSS, 1974). This document laid down a firm framework in which they could develop and saw them as filling a role complementary to that of the district general hospital. Community hospitals were seen as being needed to provide medical and nursing care, including outpatient, day-patient and in-patient care, for people who do not need the specialised facilities of a district general hospital and cannot properly be cared for at home or in residential accommodation. It was envisaged that some patients would be admitted direct to and discharged from them, for others the community hospital would serve as a bridge between the district general hospital and primary care, while a third group would consist of patients who are originally admitted to a community hospital and then move on to a district general hospital for more specialised care or attend as outpatients for particular forms of investigation. The 1976 Consultative Document envisaged

that up to one-quarter of all in-patient beds and many day places might eventually be in community hospitals and that about one-third of these places would be for medical or post-operative surgical patients, including pre-convalescent cases transferred from the district general hospital (DHSS, 1976a). However, the subsequent discussion document, The Way Forward, while acknowledging the importance of community provision in terms of community hospitals, hostels, day hospitals, residential homes, day centres and domiciliary support, warns that such developments are likely to be slow and that progress will vary from place to place depending on economic constraints, local choice and differences in the existing level of provision (DHSS, 1977a).

The main advantages of community hospitals as opposed to concentrating all services on the district general hospital, are generally regarded as being those of the more economic use of resources, the educational advantages from providing a meeting ground for general practitioners and hospital doctors, and the benefits to the patient in terms of their convenience (Bennett, 1974; Israel and Draper, 1971; Loudon, 1977). With regard to the use of community hospitals, studies have shown that a large proportion of their patients were judged to have required acute hospital care in the absence of these facilities (Bennett, 1974; Humphreys, 1973). Similarly, studies of acute hospital care have identified substantial numbers of patients who could have been cared for in a lower level facility were such accommodation available (Carstairs and Heasman, 1974). The existence of patients who require care on an in-patient basis in times of illness but who do not necessarily require the full facilities of an acute hospital is thus well documented, but what is more open to debate is that of the most efficient and effective method of providing such care, especially in view of the limited extent to which family members are likely to be able to cater for those who are currently occupying hospital beds. Thus as this study indicated, in the absence of alternative lower level facilities many of the patients who are currently occupying acute hospital beds for primarily social reasons will be judged by the medical practitioners to 'need' acute hospital care.

The use of acute hospital beds by patients who require primarily non-skilled care is generally regarded as being an uneconomic use of resources, with the resources of the acute hospital being more efficiently deployed when beds are used by people who require active medical intervention. With regard to the costs of care it must be remembered that the costs of hospital care are variable over a patient's stay and will be lowest when the patient requires only 'hotel' care. Thus the actual cost of keeping a patient in an acute hospital bed when they require only 'hotel' care may be quite small. It is nevertheless the case

that the occupancy of a hospital bed carries an opportunity cost in that it prevents another patient from using the services and facilities that can only be obtained in an acute hospital. This opportunity cost may however only be present in the long-run, for in the short-term it may not be possible to use beds more intensively due to the shortage of personnel and equipment (Gibbs, 1977). However, while it may not be possible to make changes in the use of acute hospital beds in the short-term, it is important for planning purposes to identify the most efficient and effective means of catering for those who require in-patient care because of their home circumstances. Two of the main arguments for catering for such patients outside the acute hospital is that of the opportunity costs involved in such beds being used for primarily social care and the economic costs involved. The relative costing of the use of different facilities for such patients is however unclear. Thus although one of the main arguments in favour of the use of community hospitals has been that the cost per case is smaller than in a district general hospital (Cavenagh, 1974; Weston Smith et al., 1973), such economic arguments have not gone unchallenged (Rickard, 1976). This points to the need for further costing studies to be undertaken, with the economic costs of care being precisely defined in relation to the needs of the patients and the characteristics of the particular institution under consideration. In addition it is important that such studies do not focus exclusively on economic costs but also take into account the social costs to the patient and their family of the different types of service provision. While the social costs of alternative provision in the form of, for example, patient satisfaction and the effects on the patient's household and family members, are widely acknowledged to be important considerations in assessing the relative costs and benefits of particular types of services and facilities, few such studies have included social costs in their analysis (Creese, 1977).

Recommendations and suggestions for further research

The recommendations for policy and planning that arise from the present study and which have been identified earlier in this section are now briefly summarised, together with some suggestions for further research.

One important issue concerns the availability and ability of family members to provide non-skilled care and the suggestion that such information should be routinely recorded on hospital notes and that particular attention should be paid to the care available for those who live alone and for elderly married people in admission and discharge decisions. In addition it was emphasized that attention should be paid to both the availability and capacity of family

members and the social costs to the family unit in relation to any policy decisions and planning that might increase the involvement of the family in caring for people in times of illness, such as for example might occur as a result of a rise in the clinical threshold for hospital admission or a reduction in the length of stay.

Neighbours were identified as performing a vital role in contacting assistance in an emergency situation, and especially for those who live alone. This underlies the importance of 'good neighbours' schemes and of developing community awareness of the role people may play in providing assistance, and especially in contacting the medical services for elderly people.

With regard to the use of acute beds the study pointed to the need for residential care for many of those who currently occupy an acute hospital bed for primarily social reasons. Thus, the question is that of the type of residential care that should be available. In particular, there is the question of the role that convalescent beds and nursing-home places might play in catering for people who require extended care in times of illness and of the relative costs of caring for such patients in a community hospital compared with an acute hospital bed.

Another important issue to which attention was drawn by the present study is that of the use and misuse of routine statistics. In particular it was shown that the length of stay in a particular facility is influenced by the rate of transfer, which must therefore be taken into account in making comparisons as to the length of stay of patients over time or in different hospitals or geographical areas. In addition it was shown how the results of the review of hospital use are influenced not only by real differences in the characteristics of the hospital or patient population but also by differences in the method of review, and particularly by the criteria used in assessing hospital use. Thus, the results of a review of hospital use should always be related to the context in which they were collected and especially to the criteria used in judging hospital use.

With regard to further research, the review of the literature on the relationship between marital status, illness and service use raised a large number of questions concerning the health and morbidity experience of marital groups and of possible differences in their pathways into care (see pages 5-9). In addition, the study posed several questions concerning the use of hospital beds. One question is that of the influence of general practitioners referral behaviour on the use of hospital beds, for as the present study indicated, it is

not possible to gain a full understanding of hospital admissions without the knowledge of general practitioner referral practices. Another question to which this study drew attention is that of the reasons for readmissions and the extent to which they result in a concentration of bed use among particular groups of people. While there is evidence of a substantial proportion of re-admissions during a specified period, little is known about the characteristics or causes of such hospital use, nor of the contribution of re-admissions to the routinely recorded figures on hospital use. Another question to which attention was drawn is that of the relationship between the availability of hospital beds and the extent of their use for primarily social reasons. While the clinical thresholds for admission and discharge are thought to vary according to the availability of beds and other facilities in the community, we have little knowledge as to the precise relationship and effect of these factors on hospital use. A particularly important issue with regard to the present study is that of the relationship between the availability of hospital beds and the relative rates of bed use by married and non-married people. The hypothesis put forward was that the difference in the rate of bed use between married and non-married people is related to the amount of pressure on beds and the availability of alternative facilities and services in the community, which in turn influences the extent to which patients are admitted and retained in an acute hospital bed for primarily social reasons. Finally, attention was drawn to the need for further studies to examine the economic and social costs and the benefits derived from catering for people who are currently admitted or retained in an acute hospital bed because of their home circumstances in a lower level residential facility.

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APPENDICES

APPENDIX A

SAMPLES AND DATA

Characteristics of the samples

The study population consisted of 327 medical and 97 surgical admissions to a district general hospital. These admissions comprised 33 per cent of the medical admissions of people aged 65 years and over recorded in the HAA for the full year and 12 per cent of surgical admissions. The smaller proportion of surgical admissions in the study population was due to the fact that all the medical firms were involved in the study but only one of the three surgical firms.

The study was carried out during the spring and early summer months and it is possible that the period covered was not typical of the full year in terms of the case mix, or in the demand for hospital beds. There appears to be little precise information as to the effect of seasonal variations on hospital use, although there is evidence of a seasonal variation in mortality rates, with the rates in England and Wales tending to be highest in the period December-March and lowest during the months of June-September. It is also likely that there is a seasonal pattern in the incidence of morbidity from particular conditions and that during the warmer summer months people are less likely to be admitted for such conditions as pneumonia and bronchitis, which are known to be subject to seasonal influences and are affected by social circumstances. There may also be less tendency to retain people in hospital for primarily social care during the summer months, as homes are less likely to be cold and damp and to require fires to be lit. It was hoped that further information on possible seasonal variations in the use of the study wards could be gained from the HAA data on admissions and lengths of stay dueing each of the four quarters. However, in view of the cost of obtaining special tabulations of HAA data this exercise was not undertaken.

Altogether 60 per cent of the admissions to the study wards were interviewed after discharge, with the proportions being 58 per cent of medical admissions and 69 per cent of surgical admissions. Despite the exclusion of a substantial number of admissions from the follow-up interviews for the reasons given on pages 66-68, the age distribution of patients in the hospital and follow-up studies appeared to be fairly similar, with 60 per cent of hospital admissions in each of the broad age bands, 65-74 years and 75 years and over being interviewed after discharge. However, a rather smaller proportion of married than non-married people were interviewed except in the case of women admitted to the

surgical wards. Among those interviewed there is therefore an under-representation of medical admissions and especially of married people admitted to the medical wards, and of men admitted to the surgical wards. Overall, only 58 per cent of the men admitted to the study wards were interviewed compared with 64 per cent of the women.

Table 48 People interviewed after discharge by specialty, sex and marital group *

(Includes the 9 people who usually lived in institutional accommodation)

Sex and marital state	Medical admissions	Surgical admissions	Both specialties
Men			
Married	68(52)	23(62)	91(54)
Single	6(60)	1(100)	7(70)
Widowed/div/sep.	27(71)	10(71)	37(72)
Total	101(55)	34(62)	135(58)
Women			
Married	42(60)	8(67)	50(62)
Single	12(54)	7(100)	19(65)
Widowed/div/sep.	32(65)	18(75)	50(69)
Total	86(60)	33(77)	119(64)

* Percentages based on number of admissions reviewed in each sex and marital category

The various factors which operated to exclude some people from the follow-up interview may have served as a source of bias. For example, the follow-up interviews necessarily excluded those who died in hospital or shortly afterwards and who it can be inferred were among the most seriously ill. Similarly, it is possible that those who were discharged to a psychiatric hospital or who were staying with relatives and who could not be located for an interview may have differed in important ways from the study population as a whole. As it was not possible to obtain information on the health or social circumstances of those who were not followed-up, the differences between these groups can only be surmised. However, information on the home circumstances of those interviewed after discharge, in terms of both the size and composition of their households

and the amenities available in their homes, suggested that they did not differ markedly in these respects from elderly people in the community as a whole. As might be expected, nearly all patients in the study had retired from gainful employment, or in the case of many of the married or widowed women had never had a paid job (Table C25). An indication of the occupational distribution of those interviewed was obtained by asking people about the job which they (or their spouse in the case of all but single women) had done for most of their working lives. On the basis of this information approximately 40 per cent were classified as being in non-manual occupations, while of those in manual occupations the majority were classified as skilled manual (Table C26).

The data

Few checks were made of the accuracy of the data obtained in either the hospital reviews or in the follow-up interviews, although considerable attention was paid in the design of the research tools and in the conduct of the studies to try and reduce the possibility of errors in recording and of misunderstandings arising in the interview situation. For example, with regard to the follow-up interview it was recognised that about one-third of the respondents would be over 75 years and all would have recently been in hospital. Thus the number of questions requiring the detailed recall of past events and which are liable to errors of memory were strictly limited. It was also planned to interview the respondent alone although this did not always prove possible and especially in the case of married couples. However the respondents generally completed the interview themselves, although in about a dozen cases a relative provided a substantial amount of help and acted as interpreter or actually answered a number or factual questions.

With regard to the key variable, that of marital state, a comparison was made between the marital state of patients which was recorded on the review form with that obtained in the follow-up interviews. This indicated that three people interviewed who reported themselves as divorced were recorded as widowed on the review form. This suggests that divorced people are under-represented and widowed people slightly over-represented in the HIPE and HAA data, for the information as to a patient's marital state was recorded by the ward clerk on the review form at the same time as completing the HAA form.

A particularly important question in relation to the quality of the data collected in a hospital review is that of the validity and reliability of the reviewer's judgement as to the appropriateness of patient placement. Studies have demonstrated that inter-reviewer variability tends to be low due to differences in medical 'opinion' not absolutely definable as 'right' or 'wrong',

from attitudinal factors or biases, and from differences in the accuracy or quality of the information obtained as well as to possible methodologic errors made by the observers (Zimmer, 1967; Zimmer and Groomes, 1969; McClain, 1972). Various aspects of the present review were designed to try and reduce reviewer variability and to ensure that similar types of judgements were being made by the different reviewers. For example, fairly specific questions were asked concerning the patients' use of in-patient care and discussions were held regularly with the junior doctors who were acting as reviewers to try and ensure that they were all employing the same criteria in assessing the patients' use of in-patient care. In addition, the review was planned to be completed on an on-going basis, which should have helped to reduce the element of retrospective rationalisation, although with the pressure of work some forms were inevitably completed when the final case summary was written. It was however recognised that several factors may have influenced the results obtained. For example, the large number of doctors acting as reviewers may have contributed to the element of reviewer variability. However, although a total of 14 doctors acted as reviewers due to changes in housemen and temporary absences, four doctors were responsible for carrying out over half of the reviews. Thus the reviewing was more concentrated than might at first appear (Table 49). However it is possible that the method of reviewing patients under the care of their own firm may have led to an under-reporting of the amount of hospital use arising from the patients' home circumstances. In order to try and reduce what might appear to be the threatening nature of the review and thus the tendency to record all hospital use as necessary on clinical grounds, it was emphasized that the aim of the review was merely to identify the factors which influenced their decision to admit or retain a patient in hospital and that no judgement was being made as to the appropriateness of their action. However, it is recognised that the position of the reviewer in relation to their patients may still have led to some under-recording. Another factor which may have influenced the results obtained is that in a number of cases the reviewers' judgements may have been influenced by the fact that they had recently arrived after holding a post in a teaching hospital, where the average length of stay was considerably longer than in the study hospital. A further factor which was commented on by some of the reviewers was that they generally reviewed the patient's need for admission in the light of the possible diagnosis recorded by the general practitioner, whose tentative diagnosis may have been influenced by his desire to secure admission for the patient.

A consideration of the types of factors which may have influenced the judgements made in the hospital review, such as the fact that the doctors were reviewing their own patients, their previous experience and the tendency to make

their judgements in the light of the general practitioner's tentative diagnosis, suggests that their effect was probably to reduce rather than increase the number of people recorded as being delayed in the study wards or admitted for conditions which could have been treated in the out-patient department or by the general practitioner. However, it is thought that the influence of these factors on the overall findings was probably fairly small due to the regular discussions held with the reviewers, which helped to ensure that they were using similar criteria in assessing patient placement. Also in a number of cases delays of only one or two days were recorded, which indicates that the method of review served to identify patients who were delayed in the study wards for only a very short period of time, as well as the more readily recognisable cases of discharge delay.

Table 49 Admissions reviewed by each physician

Reviewer and specialty	Admissions reviewed
General Medicine	
Physician 1	60(18)
2	50(15)
3	46(14)
4	26(8)
5	22(7)
6	22(7)
7	19(6)
8	15(5)
9	12(4)
10	11(3)
11	8(2)
12	4(1)
Not recorded	32(10)
All medical reviews	327(100)
General Surgery	
Physician 1	74(76)
2	11(11)
Not recorded	12(12)
All surgical reviews	97(100)

APPENDIX B - RESEARCH MATERIALS

Letter sent to general practitioners in the district

University of Kent at Canterbury, Health Services Research Unit
Hospital utilisation project

As part of one of the studies of hospital utilisation currently underway in this Unit, it is planned to follow-up patients aged 65 years and over who have been discharged from the general medical and general surgical wards of the Kent and Canterbury hospital. Patients will be visited in their homes between two and three weeks after discharge and invited to participate in an interview conducted by a specially trained interviewer.

The interviewing will begin in March, 1976, and continue over a six-month period. It is therefore possible that a few of the elderly patients on your list who enter the Kent and Canterbury during this time will be included in the study.

The aim of the follow-up study is to build up a picture of how elderly people manage on discharge from hospital and to identify the factors which may have helped or hindered a person's discharge. Questions will be asked concerning the person's household composition and living arrangements, the availability of care from friends and family members, their length of stay in the Kent and Canterbury hospital and the types of assistance and services received on discharge. It should of course be emphasised that all the information given in the interviews will be treated in the strictest confidence and that the complete anonymity of respondents will be maintained in the reporting of the research results.

If you would like further details about the project I will be very happy to discuss this with you if you will contact me at the following address:

Health Services Research Unit,
Cornwallis Building,
The University,
Canterbury, Kent

(Tel. 66822 extn.689)

Myfanwy Morgan
Research Fellow

Letter sent to respondents who lived
more than about 10 miles from the Research Unit

UNIVERSITY OF KENT AT CANTERBURY
HEALTH SERVICES RESEARCH UNIT

CORNWALLIS BUILDING
THE UNIVERSITY
CANTERBURY
KENT
CT2 7NF

DIRECTOR
PROFESSOR MICHAEL D. WARREN

TELEPHONE (0227) 66822

Dear

I am writing to invite you to help with an important study that we are carrying out at the University. You will know, of course, that most people tend to suffer more illnesses as they get older, and many people find it increasingly difficult to get about and do things for themselves. As a result, older people often need extra help when they are ill or when they come out of hospital.

In this study we are examining how older people manage when they return home from hospital and the sort of help they receive. We are doing this by contacting people aged 65 years and over who have recently been in selected wards in the Kent and Canterbury Hospital and asking them if they will kindly take part in a survey.

Your name has been given to us as you were recently a patient in one of the wards we are studying at the Kent and Canterbury Hospital. We hope that you have not experienced any serious difficulties yourself since leaving hospital. However, as you will realise, it is important that we talk with everybody in the study population. On the morning/afternoon of ..... one of our interviewers will call on you. She has been specially trained to work on the survey and she will talk to you about your health, your family and how you have managed since coming out of hospital.

There will not be any dramatic improvements in the quality of services as a result of this study but our investigation and similar studies elsewhere in the country, will contribute towards a better basis for planning the health and social services. I very much hope that you will agree to take part in the survey, but I must emphasise that there is no obligation for you to do so. However, you may find it helpful to know that we have spoken to your hospital doctor about this study, and he is fully satisfied about what we are proposing to do. All the information you give us will, of course, be treated in strict confidence, and will be seen only by those who are authorised members of the research team. When the report of the study is written, nobody will be identifiable in any way.

Thank you very much for your help.

Yours sincerely,

Myfanwy Morgan
Research Fellow

3. Letter left with respondents after the interview

UNIVERSITY OF KENT AT CANTERBURY
HEALTH SERVICES RESEARCH UNIT

CORNWALLIS BUILDING
THE UNIVERSITY
CANTERBURY
KENT
CT2 7NF

DIRECTOR
PROFESSOR MICHAEL D. WARREN

TELEPHONE (0227) 66822

The survey in which you have just taken part is one of several investigations being carried out by this Unit into the working of the health services in this area. In this particular investigation we are interested in the difficulties which people face when they return home from hospital, and with the sort of help that they are getting from relatives, friends and social services. The questions that our interviewer has just asked you are all concerned with these kinds of problems.

We hope that you have not experienced any serious difficulties yourself since you left hospital, but even so, you will appreciate that many people do face a variety of problems. The health and social service authorities are always looking for ways of improving the quality of services, and it is here that research work can help them. There will not be any dramatic improvements as a result of this one survey, but our investigations, and similar studies elsewhere in the country, will contribute towards a better basis for planning the health and social services.

The information you have given to our interviewer will be treated in strict confidence, and will be seen only by people working directly on the study. When the report of the study is written, nobody will be identifiable in any way.

We are very grateful for your help, and we hope that you have enjoyed co-operating in the study.

4. Hospital review form

Patient's name .....

Consultant .....

Confidential

Health Services Research Unit

University of Kent

Canterbury

Utilisation of Health Services Project

Hospital Study

Hospital number ☐☐☐☐☐

Part I

1. Name: Mr./Mrs./Miss (surname) .....(forename) .....

2. Permanent address .....

.....

Tel.no. .....

---

3. Age (yrs) ☐☐

4. Date of birth ___/___/___

5. Sex ☐

6. Marital status:

single	☐		
married	☐	divorced	☐
widowed	☐	separated	☐

---

7. Consultant under whom admitted .....

8. Date of admission to Kent and Canterbury ___/___/___

9. Route of admission:

via casualty - emergency	☐	
via casualty - GP referral	☐	
outpatient dept.	☐	
waiting list	☐	
inter-hospital transfer	☐	give name .....
other	☐	specify .....

10. Date on waiting list (if applicable) ___/___/___

11. Name of hospital admitted from .....

12. Date admitted to above hospital ___/___/___

Part II

Please complete this section when patient is first seen as an in-patient

1. Was this patient's admission:

(a) emergency ☐

or

(b) planned ☐

2. What was the patient's primary medical requirement which caused him/her to be admitted?

surgery ☐

diagnostic reasons ☐

therapy - isolated episode ☐

therapy - recurrent ☐

admitted primarily for observation ☐

admitted primarily for nursing care ☐

3. Could this patient have been treated in the out-patient department or by the general practitioner, if his/her home circumstances were favourable?

required hospital admission ☐

could have been treated by GP or in out-patient department ☐

Why was this patient admitted to in-patient care?

Date: .....

Reviewing physician: .....

Part III

Deaths

If the patient dies in hospital, enter date ____/____/____

Transfers

1. If patient was admitted from another hospital and transferred back, enter date of transfer ____/____/____

2. If patient was admitted through casualty and then transferred to their local hospital, enter date of transfer ____/____/____

3. If patient was transferred to another hospital for specific medical procedures, enter date of transfer ____/____/____

Other discharges

Please complete this section when the provisional discharge decision is made

1. The patient's provisional discharge date was ____/____/____

2. Was the provisional discharge decision delayed as a result of the patient's home circumstances?

No ☐ go to question 3

Yes ☐

(a) What were the social factors which influenced the provisional discharge decision?

(b) How much earlier would the provisional discharge date have been set if the patient's home circumstances had been favourable?

No. of days ☐

---

3. Was the provisional discharge date set earlier than "normal" due to the pressure on beds?

No ☐

Yes ☐

How much later would the provisional discharge date have been set in "normal" circumstances?

No. of days ☐

Date: .....

Reviewing physician: .....

Part IV

4. On what date was the patient actually discharged? ____ | ____ | ____

5. If the date of actual discharge (recorded in question 4) differs from the provisional discharge date (recorded in question 1), please give the reasons for this:

6. Place of discharge:

private household	☐	
warden-assisted accommodation	☐	
lodgings	☐	
another hospital	☐	give name .....
old people's home	☐	
other	☐	specify .....

7. Have any special arrangements been made for discharge (e.g. attendance at day hospital, meals-on-wheels, etc.)?

8. What type of care did the patient require at the time of discharge?

capable of self-care	☐
required non-skilled care	☐
required skilled nursing care	☐

9. (Patients discharged to another hospital, old people's home, etc.)

What were the social and/or medical factors responsible for the patient's place of discharge?

10. What was the principal diagnosis?

Date: .....

Reviewing physician: .....

APPENDIX C - TABLES

Table C1 Admissions reviewed by sex, age, marital status and specialty

Specialty, sex and age	Married	Single	Widowed	Div/sep.	Not recorded	All cats.
General medicine						
Men						
65 - 74 years	96	8	19	2	2	127
75 and over	35	2	15	2	2	56
Women						
65 - 74 years	62	11	24	-	2	99
75 and over	8	11	25	-	1	45
All medical admissions	201	32	83	4	7	327
General surgery						
Men						
65 - 74 years	26	1	4	4	1	36
75 and over	11	-	6	-	1	18
Women						
65 - 74 years	8	2	8	-	-	18
75 and over	4	5	16	-	-	25
All surgical admissions	49	8	34	4	2	97
Total	250	40	117	8	9	424

Table C2 Patients interviewed by sex, age, marital status and specialty *

Specialty, sex and age	Married	Single	Widowed	Div/sep.	All cats.
General medicine					
Men					
65 - 74 years	51	5	12	1	69
75 and over	17	1	12	2	32
Women					
65 - 74 years	39	6	18	1	64
75 and over	3	6	11	2	22
All medical admissions	110	18	53	6	187
General surgery					
Men					
65 - 74 years	15	1	2	4	22
75 and over	8	-	3	1	12
Women					
65 - 74 years	6	2	6	-	14
75 and over	2	5	12	-	19
All surgical admissions	31	8	23	5	67
Total	141	26	76	11	254

* This consists of the 245 people interviewed who usually lived in a private household and the 9 who usually lived in institutional accommodation.

Table C3 Patients interviewed who lived in a private household by sex, age and marital status

Sex and age	Married	Single	Widowed	Div/sep.	All cats.
Men					
65 - 74 years	66	5	13	4	88
75 and over	25	1	15	3	44
Women					
65 - 74 years	45	7	20	1	73
75 and over	5	10	23	2	40
Total	141	23	71	10	245

Table C4 Population in four local authority areas and numbers of admissions to the study from these areas by age, sex and marital status

Sex and age	Total population*			Admissions in the study		
	Married	Non-married	All cats.	Married	Non-married	All cats.
Men						
65 - 74	4835	965	5800	83	28	111
75 and over	1905	852	2757	28	17	45
Total	6740	1817	8557	111	45	156
Women						
65 - 74	4150	4240	8390	53	31	84
75 and over	1310	4770	6080	9	41	50
Total	5460	9010	14470	62	72	134

* Population figures from Census 1971, County Report (Kent) Table 8

Table C5

Admission rates per 10,000 Population
Hospital In-Patient Enquiry (England and Wales),
1964, 1966, 1968-70, 1973

Year and age group	Married		Non-married	
	Men	Women	Men	Women
1964				
65 - 74	1459	1372	1934	1061
75 and over				
1966				
65 - 74	1497	1365	2105	1138
75 and over				
1968				
65 - 74	1395	1036	2055	1007
75 and over	1999	1861	2762	1638
1969				
65 - 74	1440	1078	2066	1035
75 and over	1972	1804	2685	1623
1970				
65 - 74	1436	1078	2105	1076
75 and over	2007	1769	2747	1667
1973				
65 - 74	1521	1062	2088	1150
75 and over	2157	1743	2924	1907

Admission rate = $\frac{\text{no. discharges and deaths x grossing factor}}{\text{population}} \times 10{,}000$

Table C6

Principal diagnosis of live discharges among study patients by specialty

ICD disease categories	General medicine	General surgery
Infective and parasitic	2	1
Neoplasms	32	16
Allergic, endocrine, nutritional and metabolic	16	-
Blood and blood-forming organs	16	-
Mental disorders	9	-
Nervous system and sense organs	17	-
Circulatory system	80	6
Respiratory system	37	2
Digestive system	25	49
Genito-urinary system	1	3
Skin and subcutaneous tissue	2	2
Muscoloskeletal system and connective tissue	4	1
Symptoms and ill-defined conditions	14	4
Accidents, poisoning and violence	4	-
Not recorded	13	3
All cats.	272	87

Table C7 Mean duration of stay in study hospital 1975-76 general medicine and general surgery

Specialty, sex and age	Married	Single	Widowed div/sep.	Not known
General medicine				
Men				
66 - 75	12.1	14.5	12.3	8.7
76 and over	9.3	11.3	13.2	10.1
Women				
66 - 75	9.9	26.7	12.8	11.4
76 and over	11.4	13.7	12.8	12.1
General surgery				
Men				
66 - 75	11.3	14.3	9.1	9.4
76 and over	10.5	-	10.1	10.2
Women				
66 - 75	11.0	14.7	11.5	13.5
76 and over	13.4	15.2	12.2	8.4

(Based on special tabulations of the HAA)

Table C8 Type of admission and discharge of study patients by specialty

Type of admission and discharge	General medicine	General surgery	Both specialties
Admission due to social/admin.factors	12 (4)	3 (3)	15 (3)
Medical need for admission but:			
Died	52 (16)	10 (10)	62 (15)
Discharged to original or specialist hospital	8 (2)	3 (3)	11 (3)
Other discharges	255 (78)	81 (83)	336 (79)
Total	327 (100)	97 (100)	424 (100)

Table C9 Level of care required at time of discharge of study patients from the medical and surgical wards by specialty

Place of discharge and level of care	General medicine				General surgery			
	Married	Non-married	Not recorded	All cats.	Married	Non-married	Not recorded	All cats.
Died in study wards	36	19	-	55	6	4	-	10
Original/specialist hospital	3	2	3	8	-	3	-	3
Another hospital								
Medical/skilled nursing care	3	3	-	6	6	17	1	24
Non-skilled care	3	3	-	6	2	2	-	4
Not recorded	2	1	-	3	-	-	-	-
Nursing home								
Non-skilled care	2	2	-	4	-	-	-	-
Private household								
Non-skilled care	123	14	-	137	6	5	-	11
Self-care	23	65	-	88	27	9	-	36
Not recorded	5	7	-	12	2	3	-	5
Res.home/other	1	3	4	8	-	3	1	4
Total	201	119	7	327	49	46	2	97

Table C10

Length of marriage to present partner

No. of years	No.	Percentages
Less than 10	4	(3)
10 - 19	7	(5)
20 - 29	13	(9)
30 - 39	24	(17)
40 - 49	54	(38)
50 years and over	34	(24)
No answer	5	(3)
Total	141	(100)

Table C11

Length of time since break-up of marriage of currently widowed and divorced/separated people

(Based on the 81 people in this category who usually live in a private household and six in institutional accommodation)

No.of years	Widowed	Div/sep.	All cats.
Less than 2	7	1	8(9)
2 but under 5	12	1	13(15)
5 but under 10	19	1	20(23)
10 but under 20	24	2	26(30)
20 years and over	12	4	16(18)
No answer	2	2	4(4)
Total	76	11	87(100)

Table C12

Self-perception of health by age

Perceived state of health	65-79	70-74	75-79	80 & over	All ages
Excellent	14(17)	17(21)	6(12)	4(12)	41(17)
Good	38(49)	23(27)	24(48)	12(35)	97(40)
Fair	15(19)	15(18)	14(28)	10(29)	54(22)
Poor	12(15)	27(33)	6(12)	8(23)	53(22)
Total	79(100)	82(100)	50(100)	34(100)	245(100)

Table C13

Self-perception of health and reporting of a long-standing illness, disability or handicap and activity restrictions

	Excellent	Good	Fair	Poor	All cats.
No long-standing illness	34(83)	72(74)	31(57)	24(45)	161(66)
Long-standing illness but no activity restrictions	3(7)	6(6)	7(13)	5(9)	21(9)
Long-standing illness and activity restric- restrictions	4(10)	19(20)	16(30)	24(45)	63(26)
Total	41(100)	97(100)	54(100)	53(100)	245(100)

Table C14

Perception of usual state of health by age and marital state

Perception of usual state of health by age	Married	Single	Widowed	Div/sep.	All cats.
65 - 74					
Excellent/good	64(59)	8(73)	16(52)	1	89(57)
Fair/poor	45(41)	3(27)	15(48)	3	66(43)
Total	109(100)	11(100)	31(100)	4	155(100)
75 and over					
Excellent/good	18(56)	7(58)	21(52)	3	49(54)
Fair/poor	14(44)	5(42)	19(48)	3	41(46)
Total	32(100)	12(100)	40(100)	6	90(100)

Table C15

Reporting of a long-standing illness, disability or handicap by age and marital state

Presence of illness, disability or handicap by age	Married	Single	Widowed	Div/sep.	All cats.
65-74					
Yes	37(34)	4(36)	11(35)	1	53(34)
No	72(66)	7(64)	20(65)	3	102(66)
Total	109(100)	11(100)	31(100)	4	155(100)
75 and over					
Yes	12(37)	5(42)	12(30)	-	29(32)
No	20(63)	7(58)	28(70)	6	61(68)
Total	32(100)	12(100)	40(100)	6	90(100)

Table C16

Perception of usual state of health and household composition

Health rating	Married	Non-married living with others	Non-married living alone	All cats.
Excellent	25(18)	2(6)	14(20)	41(17)
Good	57(40)	12(35)	28(40)	97(40)
Fair	25(18)	11(32)	18(26)	54(22)
Poor	34(24)	9(26)	10(14)	53(22)
Total	141(100)	34(100)	70(100)	245(100)

Table C17

Reporting of a long-standing illness, disability or handicap and activity restrictions by household composition

Illness and activity restrictions	Married	Non-married lives with others	Non-married lives alone	All cats.
No long-standing illness, disability or handicap	92(65)	23(68)	46(66)	161(66)
Long-standing illness, disability or handicap but no activity restrictions	13(9)	2(6)	6(9)	21(9)
Long-standing illness, disability and activity restrictions	36(25)	9(26)	18(26)	63(26)
Total	141(100)	34(100)	70(100)	245(100)

Table C18

Loneliness and length of time since widowhood or divorce

Feelings of loneliness	Less than 2 yrs.	2-4 years	5-9 years	10 years and over	All cats.
Often lonely	2	3	2	5	12
Sometimes lonely	1	5	4	8	18
Never lonely	4	3	13	26	46
No answer	-	1	-	-	1
Total	7	12	19	39	77

(Excludes four people for whom no information was given as to the length of time since the termination of their marriage)

Table C19

Loneliness and being alone during the day

Feelings of loneliness	Not on own	Mainly on own	Usually on own	All cats.
Often lonely	8(4)	6(12)	6(37)	20(8)
Sometimes lonely	18(10)	14(27)	5(31)	37(15)
Never lonely	151(85)	31(61)	5(31)	187(76)
No answer	1(1)	-	-	1 -
Total	178(100)	51(100)	16(100)	245(100)

Table C20

Loneliness and self-perceived health

Feelings of loneliness	Self-perceived health				All cats.
	Excellent	Good	Fair	Poor	
Often lonely	1(2)	6(6)	6(11)	7(13)	20(8)
Sometimes lonely	6(15)	10(10)	12(22)	9(17)	37(15)
Never lonely	34(83)	81(83)	35(65)	37(70)	187(76)
No answer	-	-	1(2)	-	1
Total	41(100)	97(100)	54(100)	53(100)	245(100)

Table C21

Type of dwelling

Type of dwelling	married	single	widowed	div/sep.	All cats.
House*	81(57)	13(57)	37(52)	3	134(55)
Flat	10(7)	6(26)	7(10)	4	27(11)
Bungalow	46(33)	4(17)	16(22)	3	69(28)
Caravan	2(1)	-	1(1)	-	3(1)
Warden-assisted accommodation	2(1)	-	10(14)	-	12(5)
Total	141(100)	23(100)	71(100)	10	245(100)

* Includes people living in a few rooms within a house

Table C22

Home ownership by type of dwelling

(Excludes warden-assisted accommodation)

Home ownership	House	Flat	Bungalow	Caravan	All cats.
Owner-occupier	77(59)	5(19)	60(84)	2	144(62)
Local authority rented	24(18)	10(38)	6(8)	-	40(17)
Privately rented	27(20)	8(31)	2(3)	1	38(16)
Other	5(4)	3(11)	3(4)	-	11(5)
Total	133(100)	26(100)	71(100)	3	233(100)

Table C23

Length of time spent in current home

Number of years	Married	Single	Widowed	Div/sep.	All cats.
Under 1 year	5(3)	-	5(7)	-	10(4)
1 yr. but under 3 yrs.	9(6)	1(4)	6(8)	1(10)	17(7)
3 yrs.but under 5 yrs.	11(8)	1(4)	10(14)	2(20)	24(10)
5 yrs.but under 10 yrs.	30(21)	5(22)	9(13)	4(40)	48(20)
10 yrs. and over	86(61)	16(70)	38(53)	3(30)	143(58)
No answer	-	-	3(4)	-	3(1)
Total	141(100)	23(100)	71(100)	10(100)	245(100)

Table C24

Previous residence of those who had lived in present home for less than 5 years

Previous residence	Married	Single	Widowed	Div/sep.	All cats.
Same town/locality	14	-	12	-	25
Same county	4	2	3	1	10
Elsewhere London/ Surrey/Sussex	3	-	5	1	9
Elsewhere U.K.	4	-	1	1	6
Total	25	2	21	3	51

Table C25

Work status of married and non-married men and women

Work status	Married		Non-married	
	Men	Women	Men	Women
Works full-time	2(2)	-	2(5)	2(3)
Works part-time	6(7)	1(2)	5(12)	1(1)
Not working - retired	83(91)	21(42)	34(83)	32(51)
Never had paid job	-	28(56)	-	28(44)
Total	91(100)	50(100)	41(100)	63(100)

Table C26

Occupational distribution*

Occupational category	Married	Single	Widowed div/sep.	All cats.
Professional	10(7)	3(13)	4(5)	17(7)
Intermediate	55(39)	7(30)	11(14)	73(30)
Skilled manual	48(34)	6(26)	31(4)	85(35)
Semi-skilled	16(11)	4(17)	18(22)	38(15)
Unskilled	8(6)	-	11(14)	19(8)
No gainful employment/ No answer	4(3)	3(13)	6(7)	13(5)
Total	141(100)	23(100)	81(100)	245(100)

* Based on the type of job done for most of the working life of men respondents and single women, and on the occupation of their husband in the case of married, widowed and divorced/sep. women.