PROGRAMME 'B' MONITORING BOARD

IDENTIFYING DEMAND FOR INTERMEDIATE CARE & COMMUNITY HOSPITALS IN OXFORDSHIRE

FINAL REPORT

The Balance of Care Group

11 July 2003

Executive Summary

This report highlights key results from a survey of 1054 adult inpatients in community and acute hospital beds across Oxfordshire on 7 May 2003. The validated *Appropriateness Evaluation Protocol (AEP)* was used to assess the need for acute hospital care both at admission and on the day of the survey. For the community hospitals customised survey protocols were agreed to allow assessment of alternative ways of meeting needs for rehabilitation and other non-acute services.

Survey questionnaires were completed for 661 acute inpatients across the four Oxford Radcliffe Hospital sites and the Nuffield Orthopaedic Centre, a further 152 patients in the same locations in non-acute wards, and 241 patients in ten community hospitals across the county. Wards were selected for inclusion in the survey on the expectation that some of their patients might have alternative locations appropriate to their care needs: all general and elderly medical wards, most orthopaedic and some surgical wards were included. Across all patients surveyed 74% were aged 65 or over.

Some key findings were:

- 103 out of 661 acute patients surveyed (16%) were not admitted within AEP criteria.
- 295 out of 661 acute patients (45%) were not receiving care on the day within AEP criteria.
- Alternative care options were identified for 493 out of 1054 patients across all locations.

Analyses to support locality plans also indicated

- The major requirement for service development relates to community based intermediate care services to support people in their own homes.
- There is a case for some community hospital expansion in the North locality, but in the South there should be some reduction with resources prioritised on community services. In City locality, the needs for non-acute hospital services will be met within the triptych arrangement.
- There is potential for significant reduction in the demand for acute hospital beds (as many as 136 occupied beds across the county) if all intermediate care developments are progressed. The reduction in demand would particularly affect JR and Horton Hospitals.
- Increasing numbers of over 75s in North and South localities could increase demand by 24 beds by over the next four years, assuming no improvement in health status.
- A separate survey of mental health wards for older people indicated that 23 out of 82 patients could be cared for at home with specialist mental health support allied to an intermediate care services. Within acute and community hospitals a further 19 patients were identified for whom mainly community based mental health services would be more appropriate.

To ensure that changes to capacity deliver the intended benefits, related changes in current practice also need to be addressed:

- Community hospitals need to focus on a more active rehabilitation role. They should seek to accept a higher proportion of the sub-acute care now admitted to the acute wards, but at the same time need to reduce significantly admissions for recuperative care.
- Discharge and transfer protocols to ensure patients leave acute wards earlier need to be agreed, linked to the changing role of community hospitals and the expanded provision of community based intermediate care services.
- The discharge processes from the acute hospital sites need to be more efficient and started earlier in the care process.
- These capacity improvements could be negated by potential increased demand brought about by changes in admission and discharge thresholds unless demand is managed. It is proposed that the following areas, for which there is some evidence for reduction in admissions, shortened length of stay and reduced community resource usage, are examined and implemented:
  - Risk management of individual and populations of frail elderly in the community.
  - Chronic disease management programmes.
  - Frailty prevention and health promotion
  - Reduction of readmission rates
  - Improved end of life care.
  - An innovative and redesigned long-term care programme.

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The Balance of Care Group 11 July 2003

CONTENTS

Page

1. PROJECT BACKGROUND AND METHODOLOGY

Introduction

The Intermediate Care & Community Hospitals Programme Board (now subsumed into the Programme B Monitoring Board) commissioned the Balance of Care Group to:

- identify the capacity required to provide health care for patients in different parts of Oxfordshire in the most appropriate settings, and
- explore the extent to which alternative care settings to hospital should be considered

A key element of this work was to undertake a bed usage survey across all of the Oxfordshire acute and community hospital sites. This was in order to identify the appropriateness of the location of care for those inpatients currently in acute specialties and other hospital settings for whom there might be potential to identify alternative care locations. The results of the survey could then be used as a basis for estimating capacity requirements for care for these people generally with a focus on intermediate care and community hospitals capacity (but also with implications for current use of acute provision).

Analyses were also undertaken to support locality plans currently in development by the three localities that now form the focus of health planning for the county. These localities are North (comprising Cherwell Vale and NE Oxfordshire PCTs), City (Oxford City PCT) and South (SE Oxfordshire and SW Oxfordshire PCTs). As a result, many of the final analyses in this report have been presented along locality lines. Note however that detailed analyses produced for the localities is incorporated into their planning documents and not reproduced here: however, annotated Excel data tables are available which offer interested users the ability to interrogate the bed usage data set in many different ways as required, and the survey database has been passed to PHRU to allow more detailed analyses if required.

The project was initiated on 6 March and the bed usage survey took place on 7 May followed by survey results and locality planning workshops in early June. The Final Report was presented to the Programme B Monitoring Board on 11 July.

Structure of the Report

The report has three main sections:

1. Introduction and description of the bed usage survey
   The survey methodology and how it was undertaken is described here.
2. Commentary on relevant findings from the bed usage survey
   The survey database provides a rich source of raw material which can be analysed in many different ways. The results presented here are those which, after discussion with colleagues in Oxfordshire, we feel contribute most to understanding the potential for change in the locality health economies.
3. Recommendations on future care capacity
   Based on the results of the survey, and discussions as to potential developments in services at the locality level in Oxfordshire, we present

proposals for the potential development of capacity in the community health sector and the role of community hospitals in particular.

The Bed Usage Survey

This was the central undertaking of the project and provided an evidence base to support the existing work of the Programme Board:

1. identify the capacity required to provide healthcare for patients in different parts of Oxfordshire in the most appropriate settings
2. explore the extent to which potential alternative care settings to hospital should be considered

These aims are the main focus of analysis covered in sections 2 and 3 below.

A further area of interest, which has a direct bearing on those aims, was the issue of delayed discharges from hospital and the opportunity was taken to incorporate data collection in the survey to:

3. identify factors in the admission process and subsequent patient management where patient discharge might be accelerated, or admissions avoided.

There was close involvement of clinicians and other care professional staff during the process of the project itself; notably in the definition of the survey questionnaire (to reflect more closely local circumstances and data definitions), and in undertaking the survey and the interpretation of its results.

The main period of this consultation took place in the survey preparation period during March and April. This was followed by the survey itself which took place on a single day (7 May). As part of the consultation process it was agreed that the survey would focus on specialties and wards where it was thought that there would be the greatest likelihood of identifying patients for whom there might be the potential for alternative care settings. This included the majority of medical and orthopaedic wards (but not oncology and cardiac wards) and selected surgical wards in the acute sector; and also all wards in community hospitals.

Altogether, 1,054 patients in 61 wards were surveyed across 15 sites (see appendix I for a detailed ward listing). Day cases were excluded from the survey. Figure 1.1 below shows the breakdown of patients surveyed in each hospital site by their location of residence (‘other’ refers to surveyed patients from outside the Oxfordshire localities). Of the total surveyed, 241 patients were in community hospital settings and 813 in acute hospital settings.

Hospital	North	City	South	Other	Total
Churchill	17	52	36	28	133
Horton	143	0	6	14	163
John Radcliffe	33	120	112	35	300
Radcliffe Infirmary	11	43	27	37	118
ORH	204	215	181	114	714
Nuffield Orthopaedic Centre	14	15	32	38	99
Abingdon	0	0	36	0	36
Bicester	12	0	0	0	12
Brackley	8	0	0	0	8
Chipping Norton	17	1	0	0	18
Didcot	0	0	23	0	23
OxComm	3	22	0	0	25
Townlands	0	0	19	1	20
Wallingford	0	0	26	0	26
Wantage	0	0	14	0	14
Witney	4	0	54	1	59
Community	44	23	172	2	241
Total patients	**262**	**253**	**385**	**154**	**1054**

Figure 1.1 Number of patients surveyed by site and locality

Survey Methodology

The survey form was based on the *Appropriateness Evaluation Protocol (AEP*); an instrument which provides criteria for evaluation of current practice. Originally developed in the USA, it has been adapted for use in the UK and Europe and been validated and found to be reliable tool [1, 2] and the Balance of Care Group has recent experience of employing it in several other UK projects.

The AEP enables an analysis of the reasons for *admission* as well as those for *continuing stay* in an acute setting and a sets a range of criteria for judging the appropriateness of that setting for individual patients (see appendix II).

The AEP formed the core of the survey around which other questions sought information about potential alternatives care locations, making the key assumption that these were all available. This was a crucial assumption as the survey was being used to identify *potential demand* for alternative services – irrespective of whether they currently exist or not. The definition of these alternatives used by the surveyors is

provided in appendix III. Appendix IV shows these definitions mapped across to local care definitions developed and used in Oxfordshire.

As well as identifying potentially suitable alternative care settings, where appropriate, for individual patients, the survey also recorded data on:

- When and by what referral route the patient was admitted to the hospital, and who admitted them
- Reasons for admission, co-morbidities, and any individual risk factors (for example, whether the patient was on a multiple drug therapy, or lived alone)
- Whether the patient had a discharge plan and any reasons which appeared to be contributing to delays to their care process (irrespective of the patient being medically fit for discharge at the time of the survey).

Key messages from these data are presented in section 2.

The AEP was used at all acute Trust sites (Oxford Radcliffe Hospitals NHS Trust (ORH) and the Nuffield Orthopaedic Centre NHS Trust (NOC)), but was not valid or relevant for the community hospitals because it does not identify patients admitted specifically for rehabilitation purposes or sub-acute care (the usual form of care provided in these settings).

However, building on work that the Balance of Care Group has undertaken in other sites, a modified version of the survey form - which explicitly recognised these patients - was developed and employed at the community hospitals. This asked what form of care the patient had been admitted for (and whether this could have taken place in an alternative setting), and whether care the patient was currently receiving might be carried out in an alternative setting.

Apart from the AEP data, the other data items collected on the community hospital wards were exactly the same as those collected in the acute hospitals. This has enabled relevant analyses across the entire survey population as well as in the respective acute and community sectors.

Following the survey two ‘results interpretation’ workshops were held at which initial survey findings were presented to surveyors for discussion and clarification of any issues which had arisen during completion of the survey forms. Immediately following these the Project Team took part in a previously scheduled locality planning workshop (3 June) where some support was provided for the locality planning teams from survey findings.

This support continued throughout the month of June between the project team and locality teams.

Surveyor training

The involvement of local care professionals in the survey process was crucial to its success. A total of 56 were recruited to undertake the survey; coming from both acute and community backgrounds and spanning medical, nursing and therapy professions. All surveyors underwent special training, which explained the survey aims and went through the questions in detail. As several questions – particularly those related to the interpretation of whether the patient met AEP criteria – relied on the surveyor’s professional ability to abstract relevant data from the patient notes and, where

appropriate, judge the potential for relevant alternative care settings. This was a fundamental aspect of the survey and an important element of the training programme as surveyors had to think of alternative *care processes* rather than simply their knowledge of existing physical locations or structures. Thus 'non-acute bed' as an alternative to acute care could signify a range of potential locations (eg. community hospital or care home) while 'specialist nurse' could be specified in relation to the diagnosis of the patient, and assumed to be available. Surveyors were asked to be open-minded about alternatives and to ignore any existing resource constraints when identifying alternatives as the aim was to identify *potential demand* for future service configurations and investment.

The opportunity was taken to allocate surveyors to areas they did not normally work in; for example, to a community hospital when they normally worked on an acute ward or, if they remained on their usual hospital site, a different ward area. This enabled a more objective perspective to be taken of the information available from the patient notes.

Many of the surveyors took part in subsequent results interpretation workshops.

Data and confidentiality issues

Data for the survey were abstracted from each patient's medical, nursing and therapy notes; patients and local ward staff were not interviewed directly. Following discussions with Caldicott Guardians, surveyors were asked to anonymise any data which could identify the patient before the survey forms left the survey ward and were passed to the Balance of Care group analysts. In addition all surveyors and project team members were required to sign a data confidentiality agreement.

The survey data were linked to the main hospital PAS system through use of the patient's hospital number. This enabled data on PCT of residence to be obtained and, one month after the survey itself, the opportunity to follow-up what had subsequently happened to the survey patients in terms of their date of discharge (if this had occurred) and their destinations. An important reason for this follow-up was to obtain the distribution of the lengths of stay of the survey patients and 'fine-tune' the implications for developing potential intermediate care capacity estimates.

All survey data were entered into a structured Microsoft Access database by Balance of Care Group analysts. On completion of the project, the database is being handed over to Public Health Research Unit and will be available for further analyses locally as required.

At the same time as the Balance of Care bed usage survey a separate survey of older people in mental health settings was undertaken and a report on its findings is incorporated in appendix V.

Definitions

There are some basic definitions to be made to support interpretation of the findings and conclusions made in the following sections. In addition, as noted, appendix III contains more detailed definitions of the care settings and rehabilitation types used in the survey and appendix IV shows how these map across to care definitions developed and used in Oxfordshire.

The chief definitions to highlight here are:

1. Hospital ward types

- Acute wards
  These are wards in hospitals providing major care and treatment facilities capable of providing care for a patient who would meet AEP criteria. In Oxfordshire these are the four hospital sites of ORH, and the NOC site.
- Non-acute wards
  These are defined as wards which are sited in acute hospitals but which have rehabilitation or transitional care functions as their primary focus. Six of the wards included in the survey fell into this category:

HOSPITAL	**WARD**
Radcliffe Infirmary	Adams Bedford Beeson
Churchill	Linden Unit
Horton	Oak
NOC	Rivermead

Figure 1.2: Non-acute survey wards

- Community wards
  These are non-acute wards in a community hospital setting. This includes the facility at Brackley.

2. Survey populations

The full survey population was 1054. However, different analyses have required examining different sub-sets of the total population. This subset population figure is given on each chart where relevant.

Note that, for some survey questions, surveyors could assign more than one option for each patient. In this case, where used in the following analyses, the subset population is not relevant and reference is made instead to ‘number of occurrences’ rather than ‘number of patients’.

Acknowledgments

The Project Team would like to acknowledge the help and support of all colleagues who took part in supporting the bed usage survey. They are listed in appendix VI.

Jane Davies provided valuable administrative assistance for the survey. Andy Buckland undertook the survey and analyses of mental health services for older people and provided the material which is incorporated in this report.

Special thanks are due to Jill Dean for her invaluable support and assistance in facilitating the project throughout its course and in providing contributory comment and analyses.

2. RESULTS FROM THE BED USAGE SURVEY

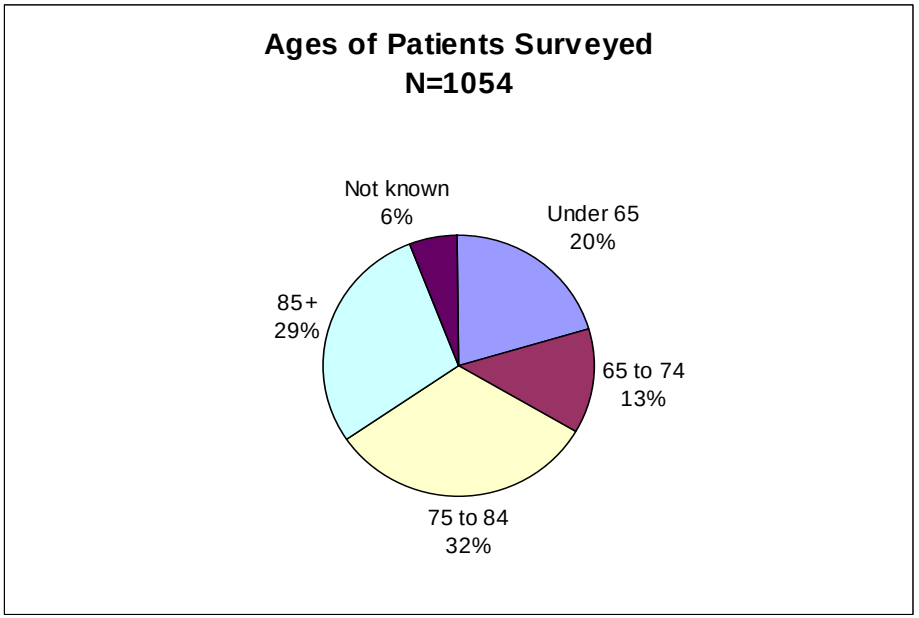


Figure 2.1

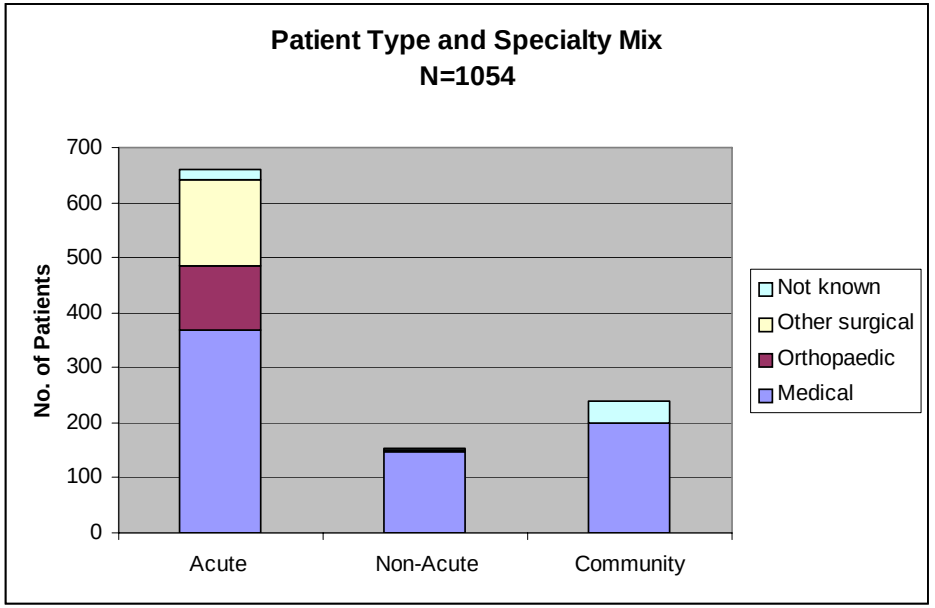


Figure 2.2

Who are the people we are interested in?

Given the primary focus on medical and orthopaedic inpatients in the survey and the inclusion of community hospital locations, it is not surprising that the age range of the patients surveyed is heavily weighted towards older age groups. Across the entire survey population the percentage of under 65s was 20%: ranging from 28% on acute wards to 12% on non-acute wards and 5% on community wards.

Because patient details on age and specialty were drawn from the various hospital PAS systems there is a small amount of missing data, which follow up suggests are mainly older medical patients also.

COMMENT: This age structure is similar to findings in other surveys, given the range of specialties, ward types and hospital sites included. Further analysis of age by locality shows the proportions in each age group are similar for each locality.

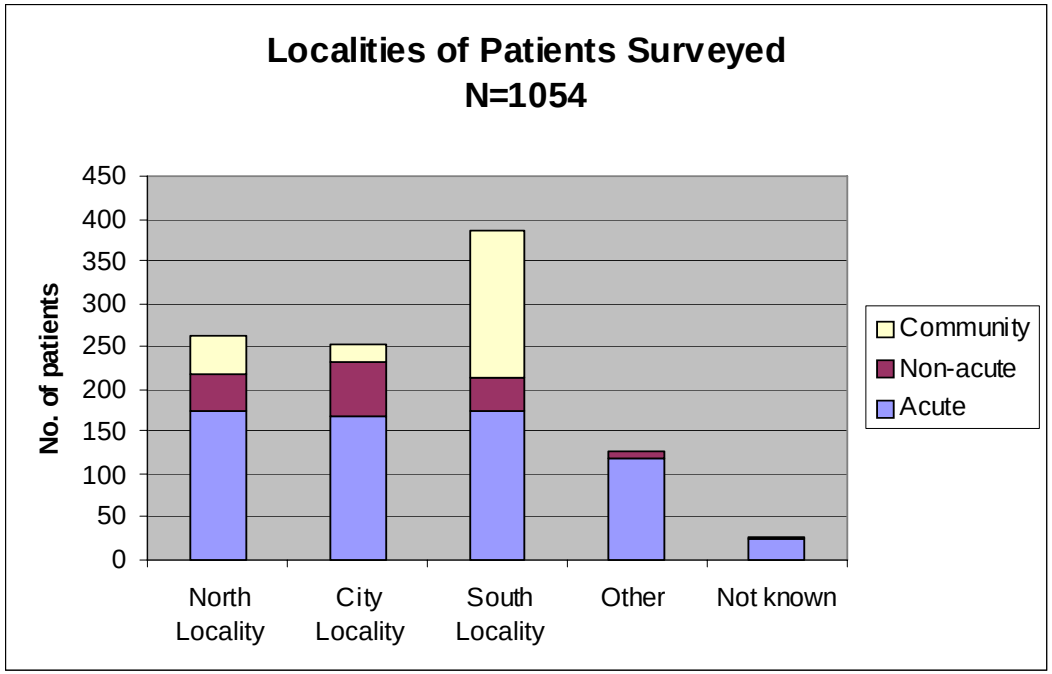


Figure 2.3

Which localities did the patients come from?

The numbers of acute patients surveyed from each locality were almost exactly equal. The size of the locality populations is similar in the North (200,000) and City (195,000), but larger in the South (280,000), thus South appears to have a lower usage of acute beds relative to population. This may be linked both to the alternative use of Royal Berkshire Hospital in Reading instead of Oxford, but also to the substantial availability of community hospital places.

Relatively more patients from the City locality were identified in non-acute beds. Patients surveyed from further afield were only found to be occupying beds in acute hospitals.

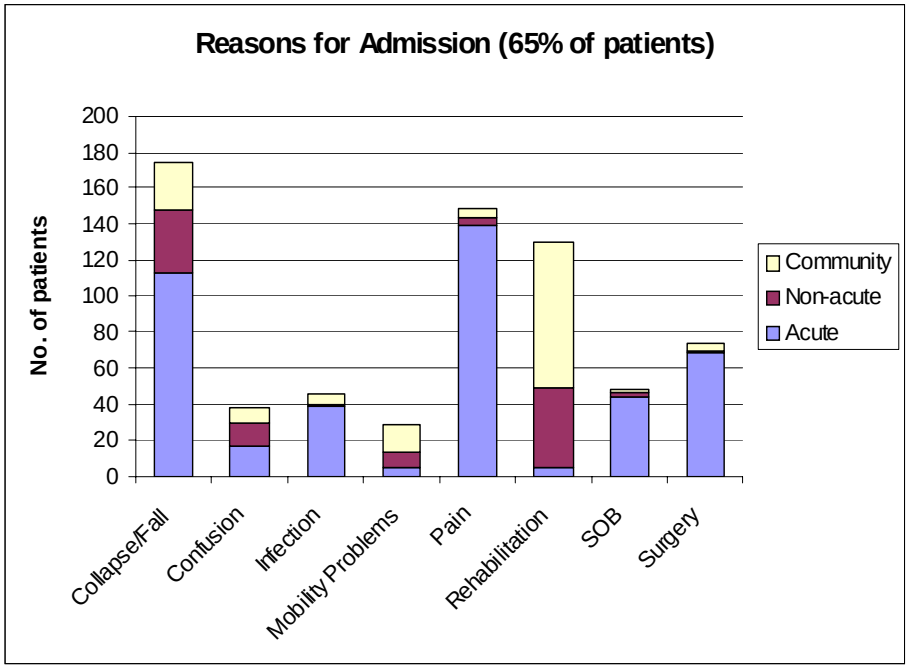


Figure 2.4

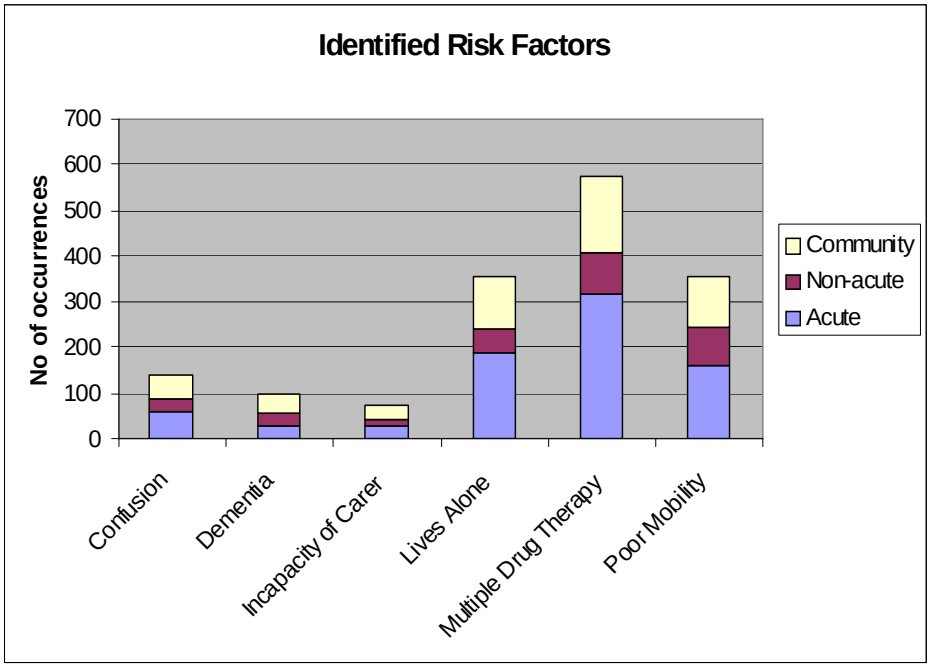


Figure 2.5

Why were patients admitted?

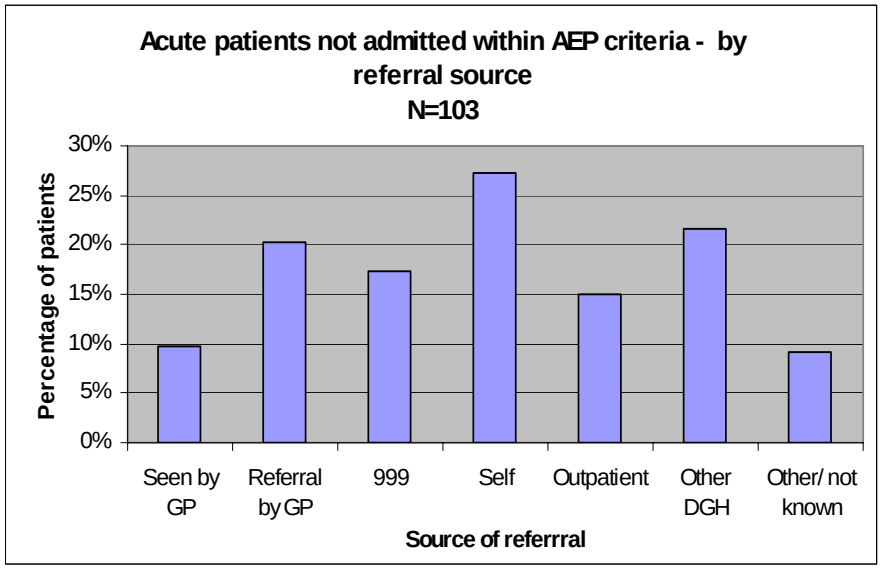
Data on the main admission reason (where identified in the notes) is summarised by main type of reason and ward in figure 2.4. Although 'falls' dominate, for some patients the fall will have been the result of a different primary reason such as a stroke. As orthopaedic and some surgical wards were included in the survey, this shows up in the number of admission reasons under 'surgery'. Two other notable reasons for acute admissions are 'Shortness of breath' (SOB) and infections. The majority of admissions (56%) were medical; with 24% surgical and 18% orthopaedic (2% were not known)

In the community and non-acute wards 'rehabilitation' is the single most important reason with most admissions being transfers from acute wards (see figure 2.10 below).

Risk factors for patients (figure 2.5) were recorded – one, or more, where identified. These included: whether the patient had dementia or confusion; was on multiple drug therapies (four or more); lived alone; had poor mobility, or had a carer who was incapacitated.

COMMENT: Risk factors can have an important bearing on the complexity of discharge arrangements and patients with two or more factors often remain longer in hospital as a result. The three largest contributing risk factors suggest a potential focus for active health 'surveillance' measures in the community.

The reasons for admission also support preventive strategies in the community, particularly falls prevention and extension of community-based chronic disease management through the use of specialised nurses and community workers (eg. COPD nurses).



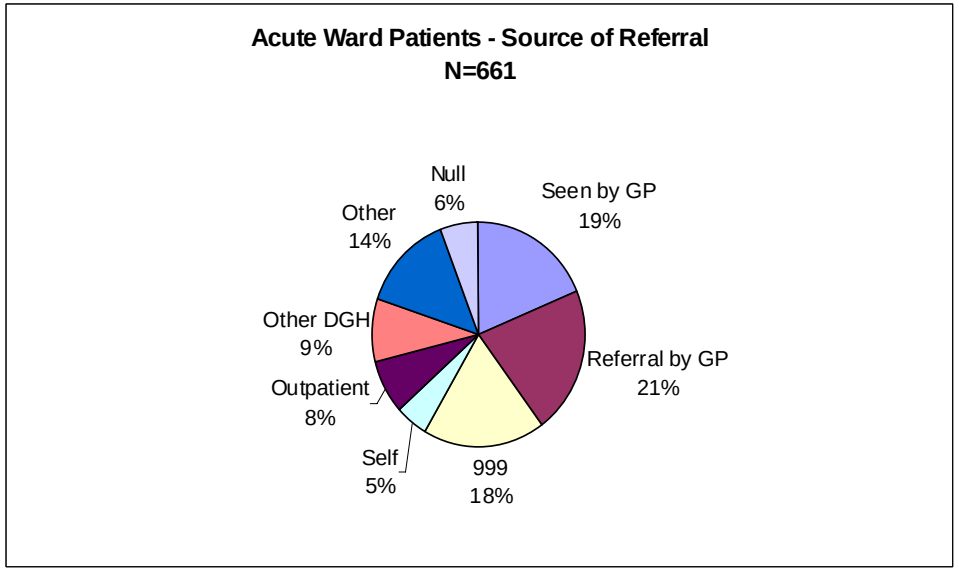


Figure 2.6 **Figure 2.7**

How many patients were admitted outside AEP admission criteria?

Overall, 103 of 661 acute patients (16%) were recorded as falling outside 'AEP on admission' criteria. Figure 2.6 shows the percentage of these patients by source of referral (ie. 10% of those patients 'seen by GP' were admitted outside the AEP criteria). Although the 'self referrers' and 'other DGH' groups (referring to acute hospitals other than ORH and NOC) show large percentages admitted outside AEP criteria, the actual proportion of patients admitted from this source is relatively small (see figure 2.7). There is an almost two-fold difference in the proportion of patients falling outside AEP admission criteria who were 'seen by GP' compared with those who were 'referred by GP'.

The AEP is 'clinically conservative' in its definitions so patients admitted for intravenous therapies only are regarded as meeting acute care criteria (and were recorded as such by surveyors). However, professional opinion now suggests that many of these patients could receive such therapy outside an acute location. Surveyors recorded 31 patients for whom IV therapy was the *only* AEP admission criterion met. These are in addition to the 103 who did not meet any AEP admission criteria.

For acute patients, figure 2.7 shows that the two principal sources of referral are by emergency ambulance (18%) and via a GP (40%). 'Seen by GP' means that the there was evidence in the notes of a GP having examined the patient before they were admitted; 'referred by GP' means that the notes indicate that although the patient initially contacted a GP, they were referred to the hospital by them without prior examination. 'Outpatient' referrals were all for elective orthopaedic or surgical patients.

The majority of community hospital patients (not shown here) were admitted as transfers of care from acute hospital settings.

COMMENT: The overall figure of 16% falling outside AEP on admission criteria is similar to that we have noted in surveys elsewhere. However, within that figure, there are a number of aspects to note including:

- those admitted outside the AEP having been referred by a GP is relatively large and has implications for the further development of referral guidelines and protocols.
- conversely admissions outside the AEP of patients 'seen by' the GP are low
- the large proportion of admission from other acute hospitals raises questions about admitting criteria of what are, effectively, 'post-acute' patients.
- further consideration needs to be given to guidelines for treating patients requiring IV therapy only in non-acute settings.

The number of orthopaedic patients falling outside the AEP admission criteria suggests that some patients might be admitted more than 24 hours before their scheduled procedure. This is usually unnecessary from a clinical perspective and suggests there may be scope for reducing this number through, for example, outpatient pre-assessment clinics.

In other survey localities we have found '999' admissions forming a higher proportion of referrals, with fewer referrals by GPs. The lower emergency and higher GP figures here may reflect current admission practices and a greater degree of direct involvement by GPs in the active management of referrals.

North locality had a higher proportion of 999 referrals and fewer GP referrals than City and South.

Further analyses by time of arrival of acute patients (data were available for 505 out of 661 patients, 76%) showed expected patterns in terms of source of referral (with the majority of GP initiated admissions in the afternoon and evening). Where recorded, 29% of admissions arrived during the night (between 2100 and 0900).

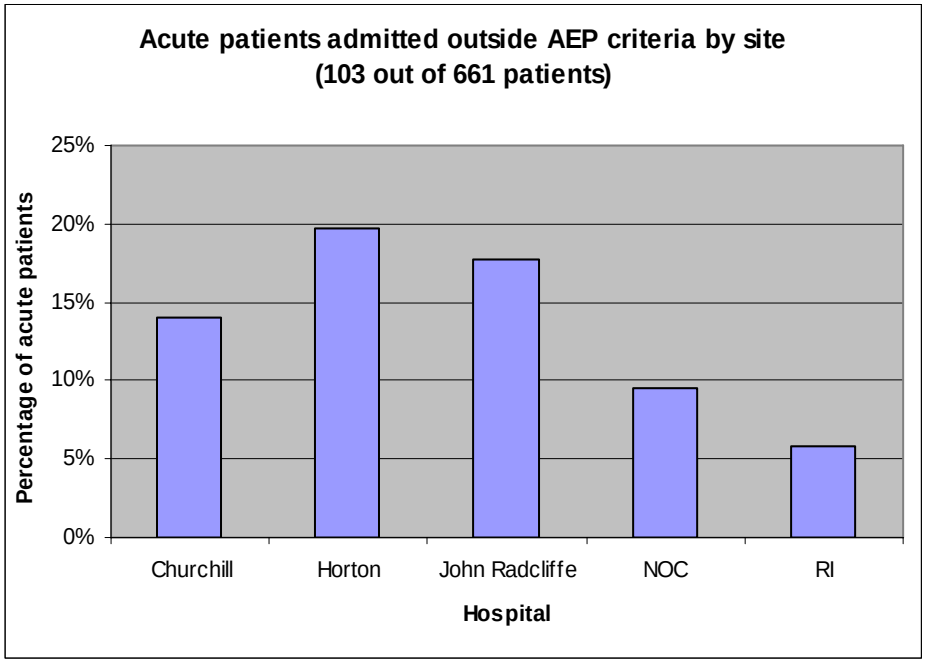


Figure 2.8

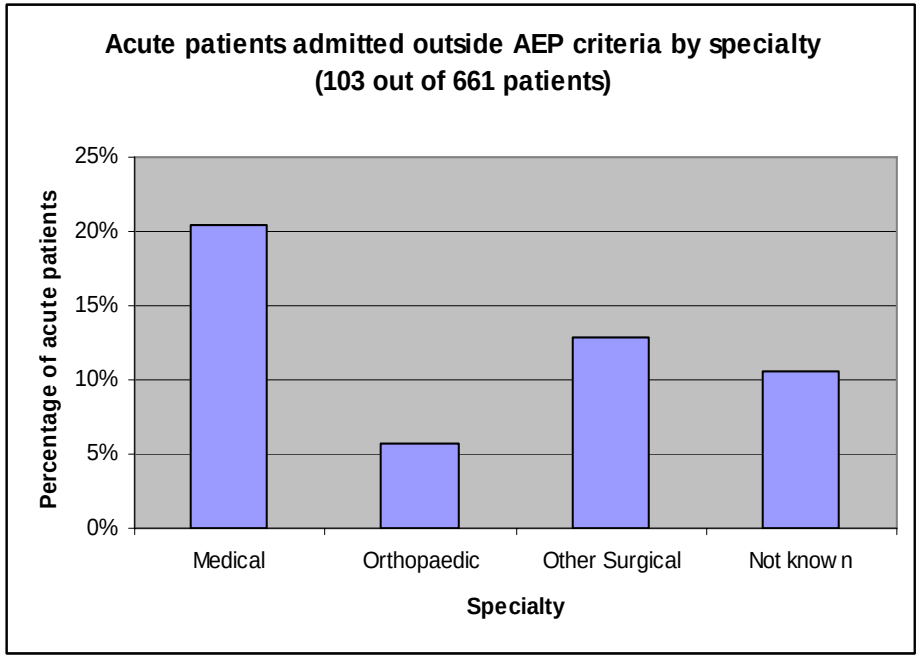


Figure 2.9

How did admission patterns differ by hospital and specialty?

Looked at by hospital site (figure 2.8), the Horton and John Radcliffe sites have an above average percentage of admissions falling outside AEP criteria with the NOC having a considerably lower percentage. This partly reflects the fact that orthopaedic and surgical patients are less likely to be admitted outside the AEP criteria than medical patients (figure 2.9). The Radcliffe Infirmary numbers include only patients on the neurology and neurosurgery wards (the geratology wards are considered 'non-acute' in this analysis).

Analysis by main specialty type (figure 2.9) shows that, where identified, 20% of medical patients were admitted outside AEP criteria compared with 6% orthopaedic and 13% other surgical. (The number of patients for whom specialty of admission was 'not known' is small compared with numbers in the other three specialty groups).

Further analyses (not illustrated here) show that the North and South localities have very similar proportions of patients admitted outside AEP criteria (18% and 19% respectively) while Oxford has fewer (13%). Admissions outside AEP criteria by age group show that, for all age groups 65 years and older, the proportions were remarkably similar (19-21%, where identified). For those under 65 years the proportion was only 8%.

COMMENT: The medical and elderly specialties are where the intake of patients is more varied and where, with hindsight, more patients can be seen to have been admitted outside the AEP criteria. However, it should be emphasised that this fact might not be known or obvious at the time of admission and the results should not be interpreted as suggesting that all of these patients might have had alternatives to acute admission.

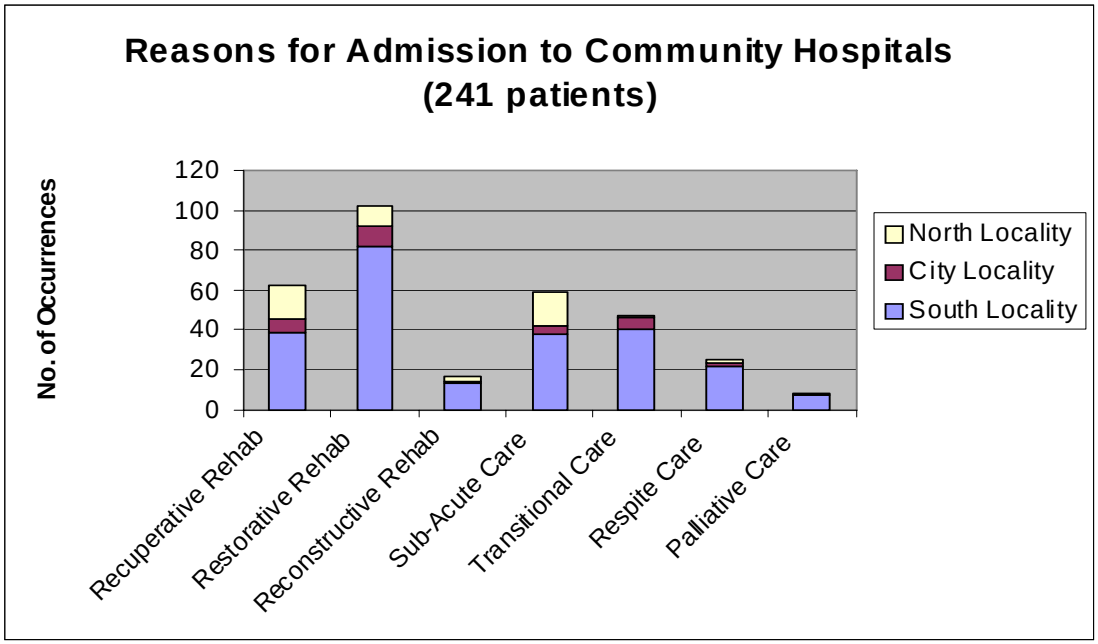


Figure 2.10

Why are people admitted to community hospitals?

Where the data could be found it was feasible that surveyors could identify one or more reasons for admission for any individual patient. However, any individual could only be identified as being admitted for one particular type of rehabilitation - even if sub-acute or respite care was also noted. This means the interpretation of the types of rehabilitation across the 241 patients is indicative of the focus on recuperative and restorative rehabilitation in the community hospital setting.

COMMENT: The overwhelming majority of admissions is from patients in south locality reflecting the larger number of community hospital beds available. They are also admitted for a wider variety of reasons, again reflecting the availability of beds. Outside the South locality few patients are admitted for restorative rehabilitation.

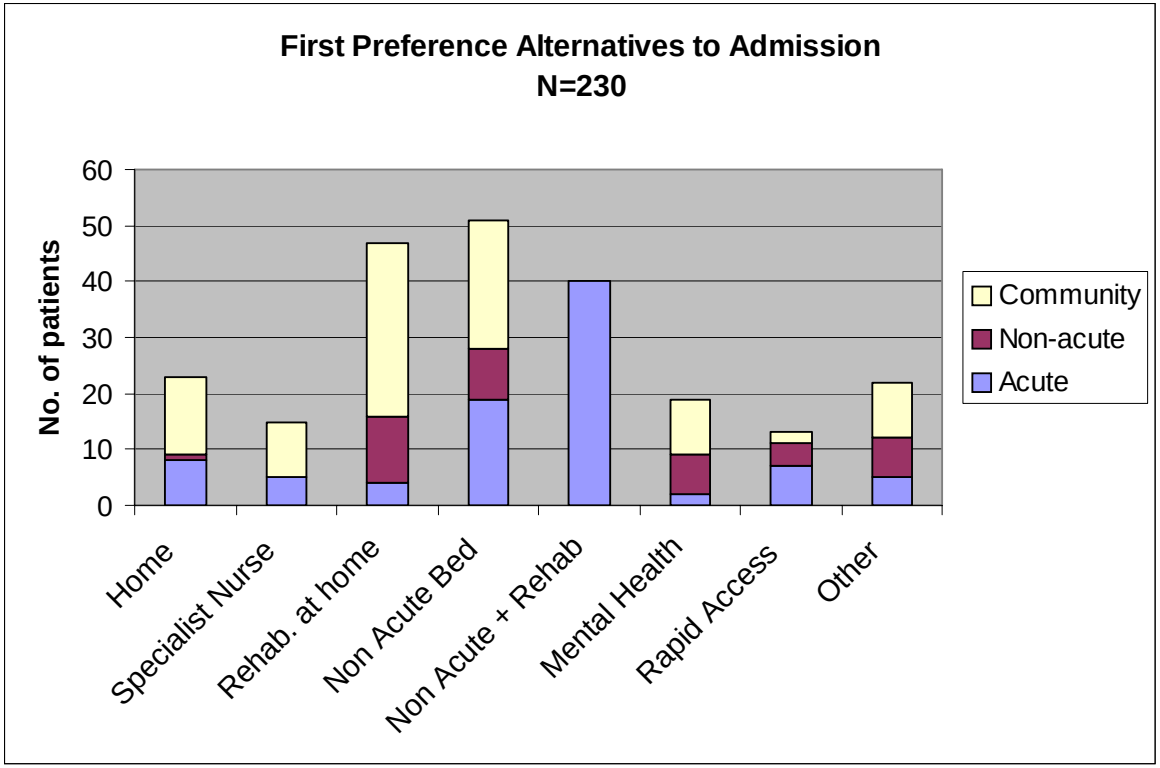


Figure 2.11

What are potential alternatives to admission for patients?

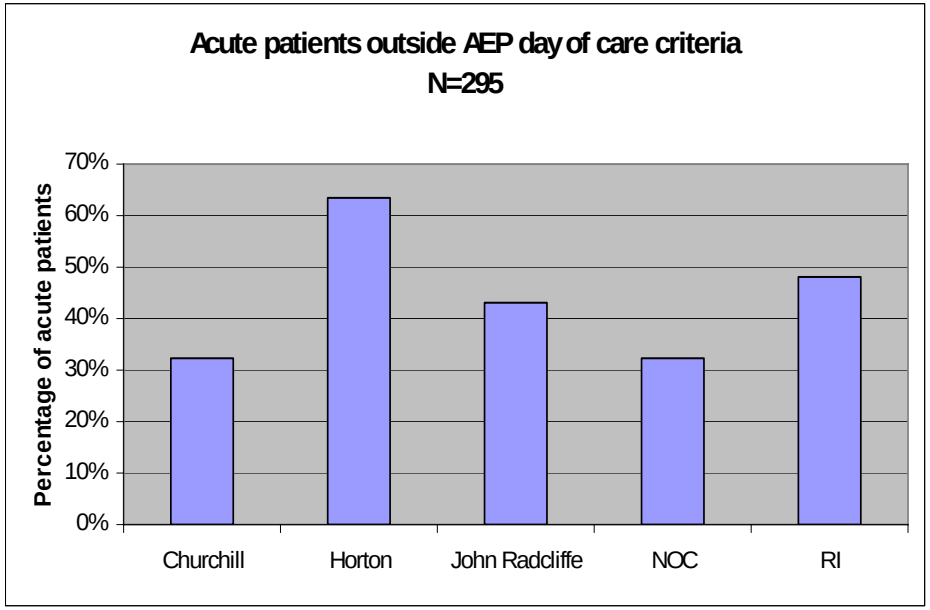
Figure 2.11 shows the first preference alternatives to admission for patients across all localities. Alternatives were specified for 90 of the 103 acute patients admitted outside the AEP criteria, and for 40 non-acute and 100 community hospital patients. We have excluded non-acute community hospital patients for whom 'non-acute bed and rehabilitation support' was specified as an alternative: these patients are deemed to already be in such a location, although in the future care homes could provide an equivalent service. In some cases surveyors did not rank their

preferences for alternative locations of care, and in these cases (conservatively) we have selected the option closest to that being provided on the day of the survey.

The range of potential alternative locations is wide for acute patients, although focused on non-acute bed settings (mainly with rehabilitation services). Many patients already in non-acute or community ward settings have the potential to be in their own home with sufficient domiciliary support.

COMMENT: The most striking finding is the potential scope for home-based rehabilitation where patients are currently in non-acute or community wards; and non-acute beds with rehabilitation for patients currently admitted to acute wards. This implies a 'cascade' effect in the use of beds would be possible if there are sufficient domiciliary or care home-based services to prevent some admissions to community hospitals.

The pattern of alternatives in the South locality differs from North and City, in that it is dominated by the large number of community hospital places. Thus a majority of the patients with home-based alternatives to admission are in the South, and mental health care services are also identified as a significant component.



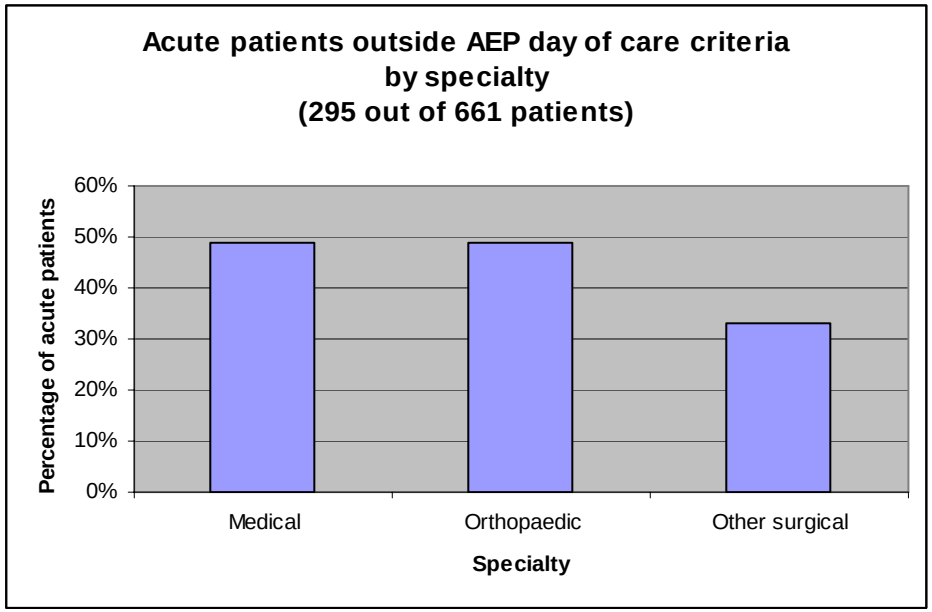


Figure 2.12 **Figure 2.13**

How many patients were outside the AEP 'day of care' criteria?

On the day of the survey, 45% of acute patients surveyed (295 out of 661) were identified as receiving care outside the AEP 'day of care' criteria across all of the specialties and acute sites. Between the sites it should be noted that the Horton percentage is large as it is providing care for a large number of non-acute patients on an acute ward. The percentage for the RI is high and reflects patients outside day of care criteria in neurosciences (the geratology patients are not included in these figures).

Most of these patients (in terms of numbers) were in medical specialties, but the medical and orthopaedic *proportions* were actually the same (figure 2.13). Although many orthopaedic and other surgical patients were admitted within AEP criteria (for procedures), a substantial number were deemed to be outside the 'day of care' criteria (ie. they were post-procedure, but did not meet criteria for continuing acute care needs). Just under a third of patients were signed off as 'medically fit for discharge' according to their notes.

The overall figure of 45% includes those patients who were subsequently discharged later on the survey day, or shortly thereafter: for example, just over half (153 patients) were discharged in the week following the survey, although some of these (40 patients) had already been subject to identified delay. The implications of these subsequent outcomes are important when assessing overall capacity requirements, as discussed further in section 3.

As noted before with admissions, patients who were only receiving parenteral therapy were still regarded as meeting the 'day of care' criterion. These were separately identified, but only accounted for an additional 15 patients.

COMMENT: Although this appears to be a large 'headline' figure, it is not atypical of findings from other surveys locations. As with the admission criteria it should not be interpreted as meaning that patients should *necessarily* be in other care settings - only that there exists some potential for this. While some of these patients are medically fit for discharge, others are undergoing some form of rehabilitation which does not require an acute care setting (see below).

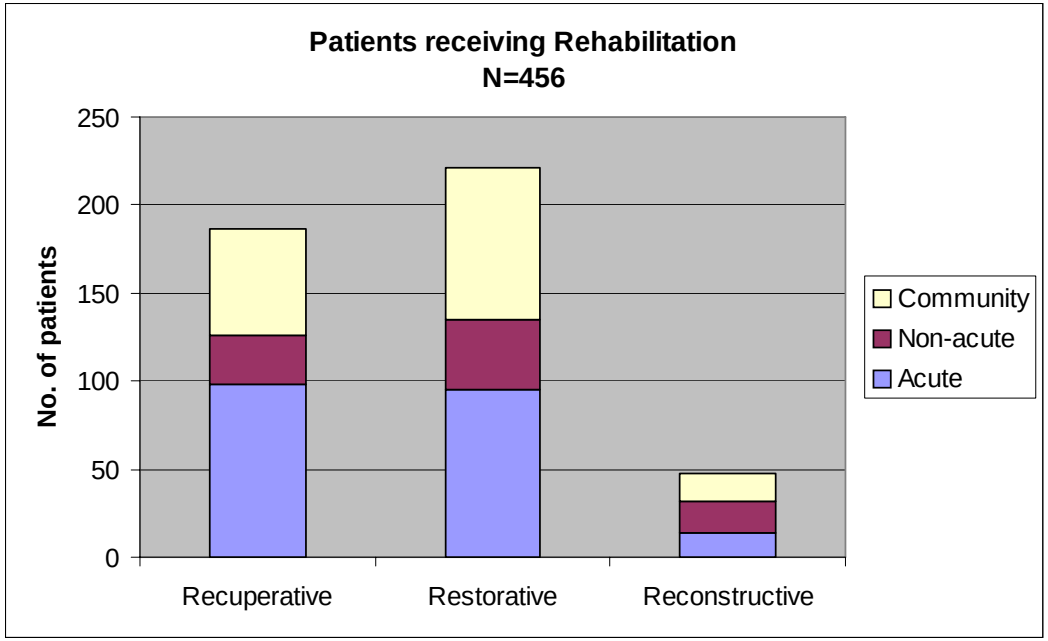


Figure 2.14

How many patients were receiving rehabilitation?

Under the definitions used (see appendix III) 456 out of 1054 patients in all locations were receiving some form of rehabilitation.

Of particular note is the scale of restorative work undertaken in an acute setting. As noted in figure 2.10 there were few admissions to community hospitals in North or City localities for this purpose.

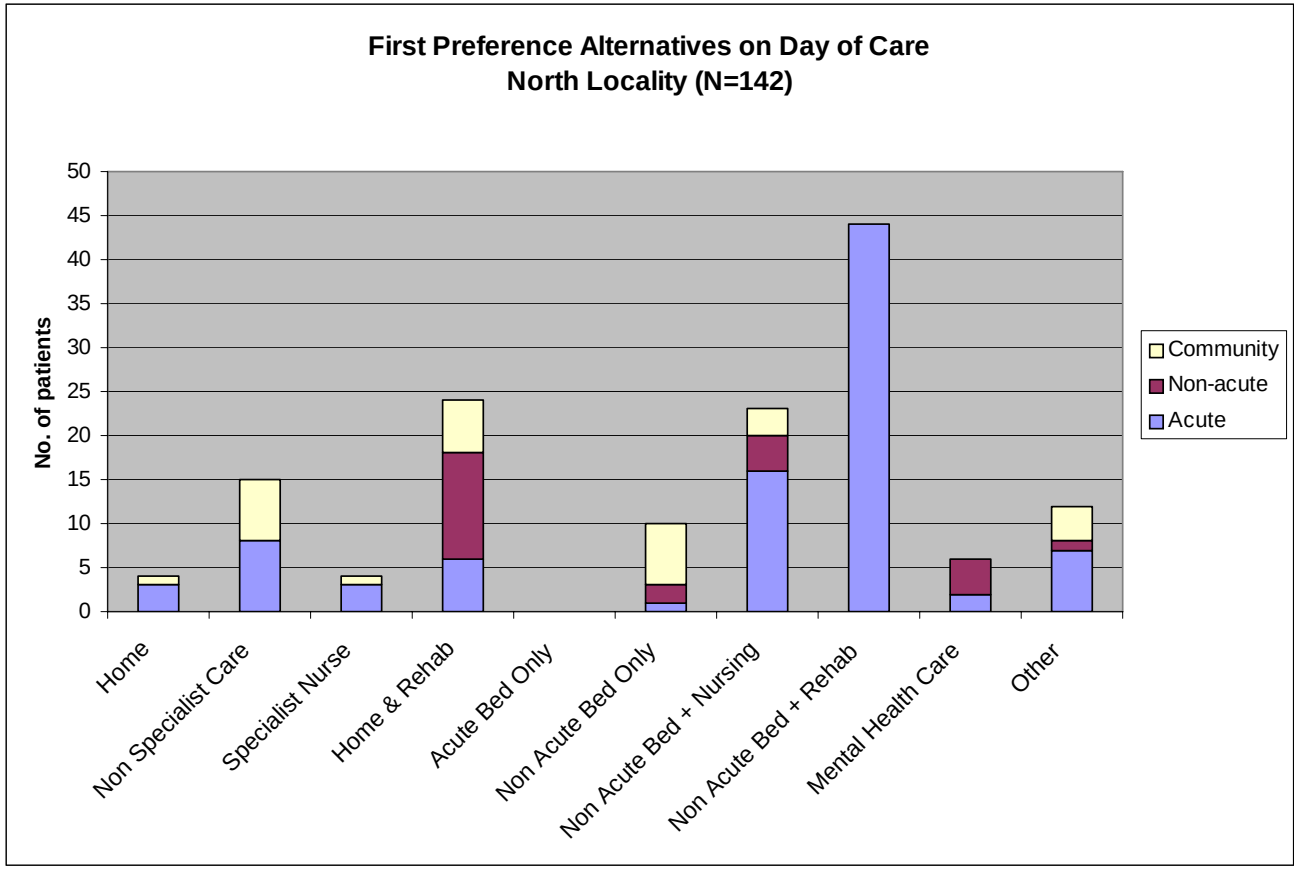


Figure 2.15

Using the same exclusions as in figure 2.11, alternative care options for patients on the day of the survey were identified for 142 out of 262 patients from North locality. The range of alternative care settings for acute patients is wide-ranging although clearly dominated by non-acute care with rehabilitation support and non-acute nursing care (care home). Many of the non-acute patients had alternatives specified involving care in their own home with rehabilitation support. For patients currently in a community hospital, home based alternatives and some use of care homes predominated.

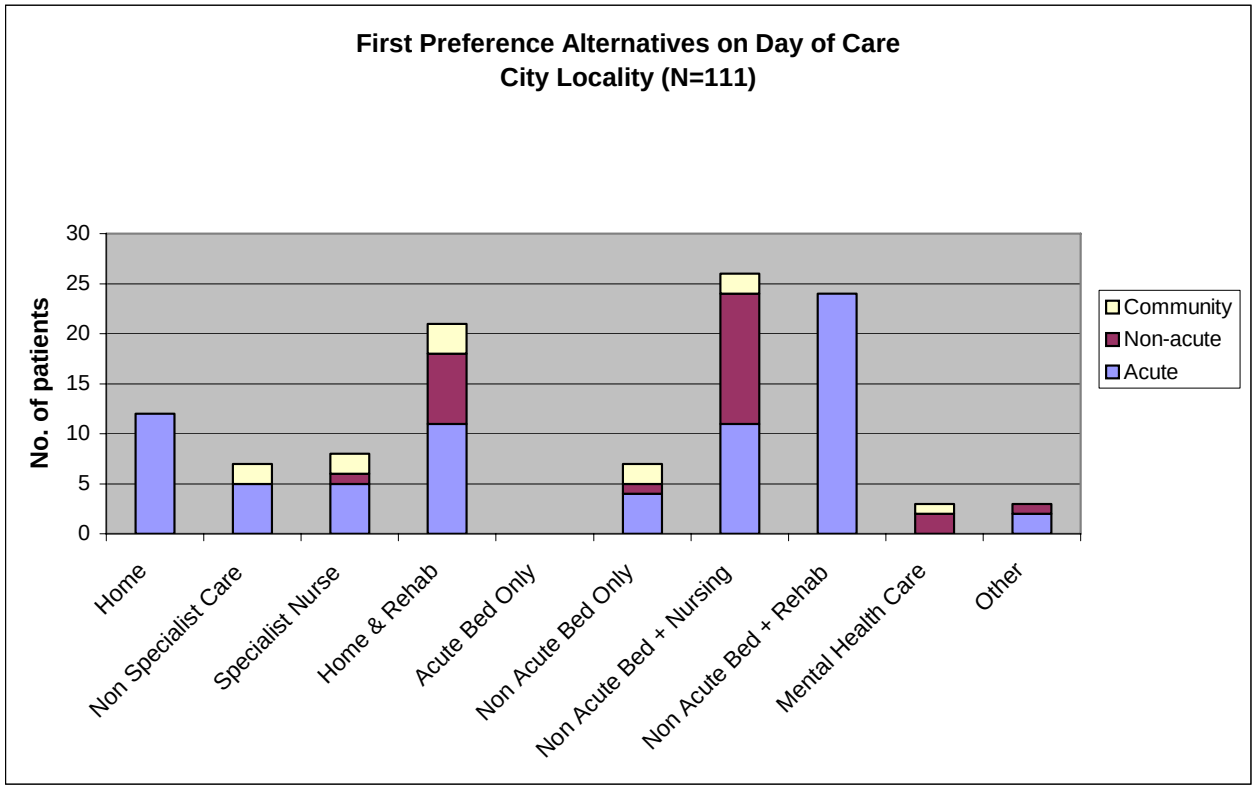


Figure 2.16

A similar analysis for City locality patients shows a similar underlying pattern to North locality, although the patient's own home as a care setting is also more prominent here; on a par with care home placement. Numbers of acute patients for whom non-acute bed with rehabilitation remain high, but not as high a proportion as in the north (perhaps a reflection of the availability of the geratology beds at the RI).

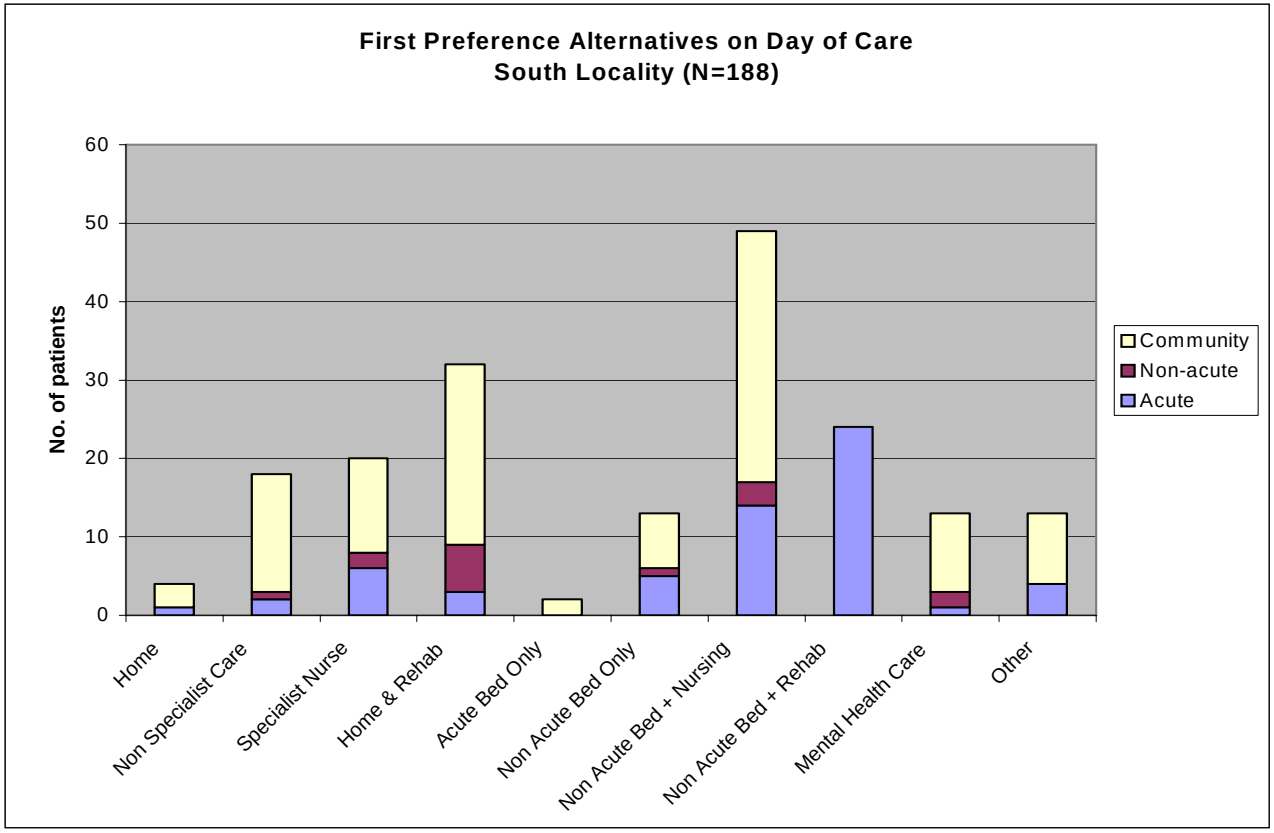


Figure 2.17

South locality has large numbers of community hospital beds: alternative care settings, especially home-based, were identified. Mental health care is also more noticeably specified as an alternative. The numbers of acute patients for whom a non-acute bed with rehabilitation is preferred is the lowest of the three localities, perhaps reflecting the substantial provision of community hospital places.

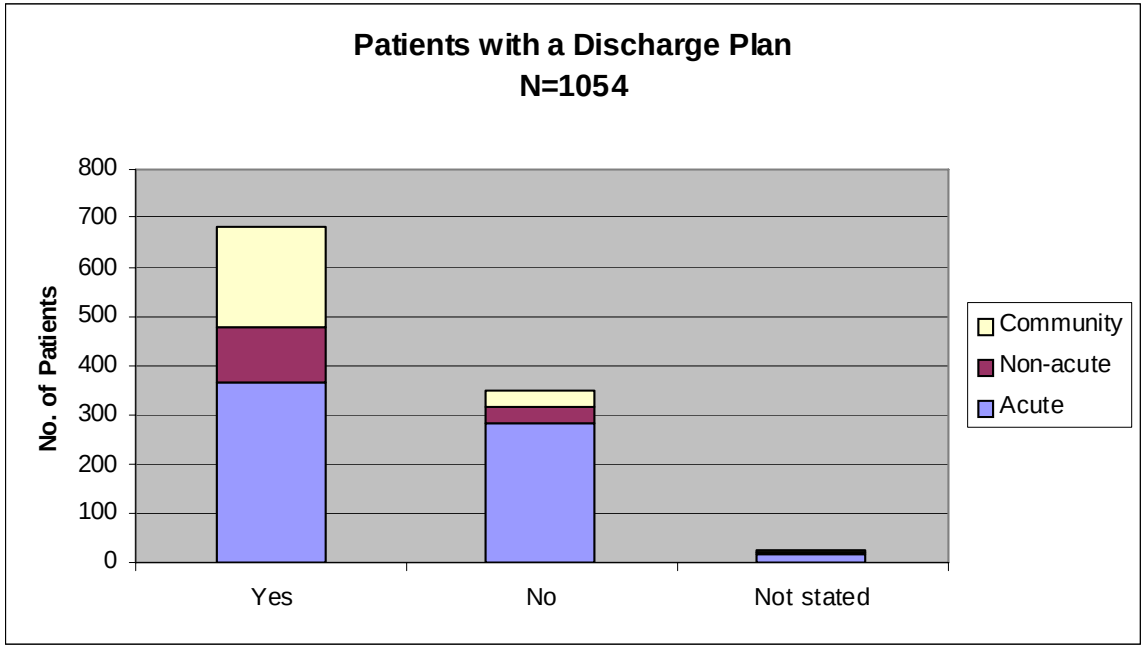


Figure 2.18

How many patients had an identifiable discharge plan?

Surveyors identified whether or not there was any form of discharge plan in each patient's notes taking a liberal definition of 'discharge plan' that was not confined to a specific format. Any evidence that discussions or consideration of discharge arrangements had taken place was deemed to count.

The overall figures show about twice as many survey patients had a plan (65%) as did not, but there is clearly a big difference between patients in non-acute and community wards and those on acute wards. All of the acute sites were in the range 52-67% and the community hospitals in the range 62-95% with plans. At the individual ward level variations were very marked - even within the same hospital - ranging from 13 – 100% with plans.

COMMENT: A high quality of discharge planning is essential if patients are to be closely monitored and appropriately progressed along their care pathway and through their hospital stay with a clear focus kept on their target health status and discharge destination. Overall, surveyors expressed surprise at the relatively poor quality of discharge planning found in notes on acute wards. There survey data suggest that there is scope for reviewing discharge planning procedures on both a systemic basis across hospitals as well as at the individual ward level.

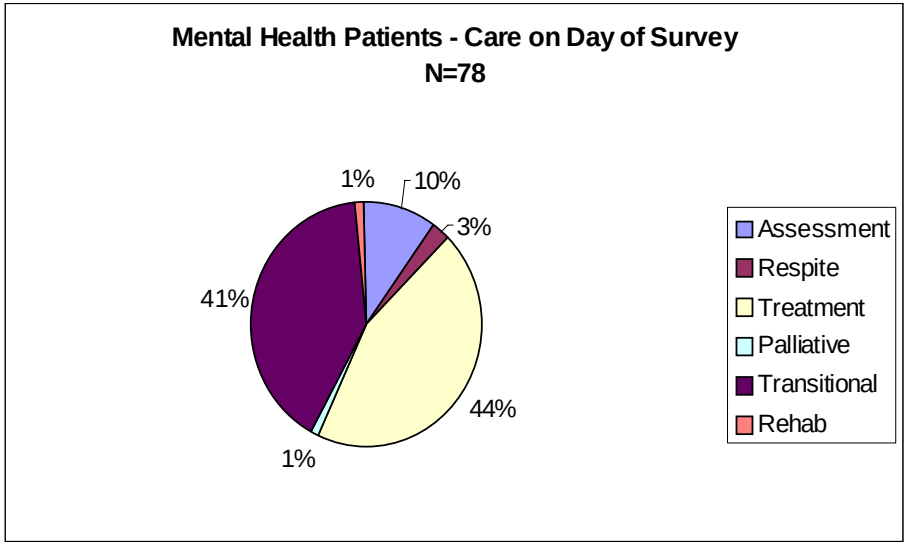


Figure 2.19

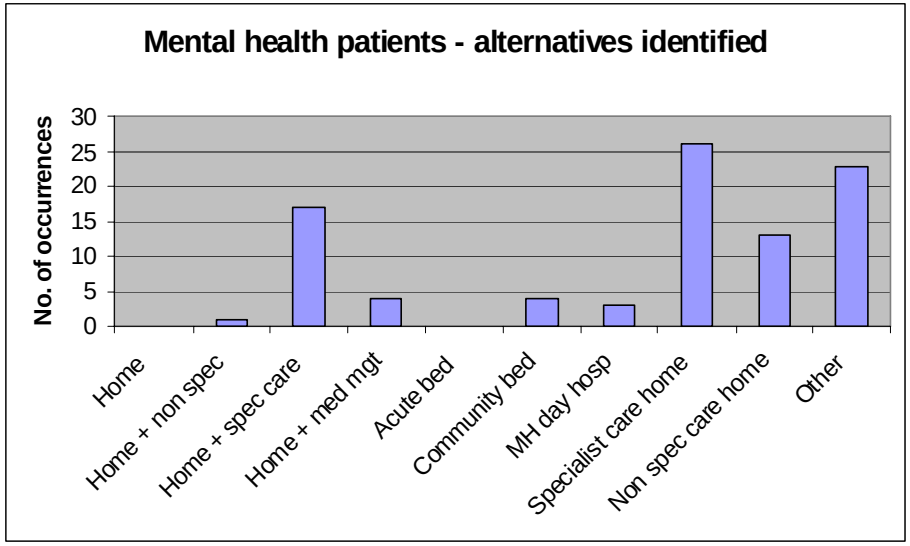


Figure 2.20

A separate survey of mental health wards was undertaken at the same time as the Balance of Care bed usage survey (for details see appendix V) and 78 patients were surveyed. An important aspect to note is the number who are classified as 'transitional' patients; ie. they had been identified as requiring care in another setting and were awaiting relocation.

Surveyors identified potential alternatives to patients' existing care settings and these are shown in figure 2.20. There is a wide range of potential settings but care homes (whether specialist care home with or without psychiatric care) are the predominant alternative, with the patient's own home with specialist support care also a significant option.

COMMENT: The overall pattern for patients requiring mental health care services is, in many respects, similar to that of patients in acute care settings where, for significant numbers, there are alternative non-hospital options both in non-acute settings (primarily care home in this case) but also in the community.

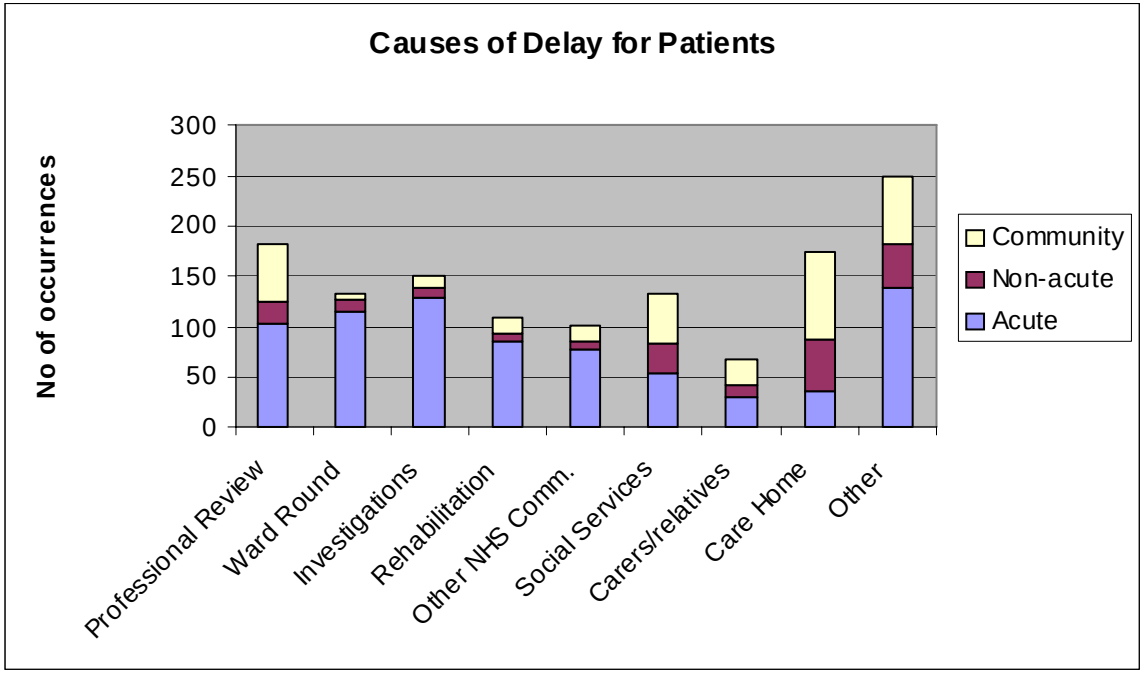


Figure 2.21

What delays were experienced by patients?

Delays to the discharge process are regarded as a key indicator of hospital performance, and data on this were requested as part of the survey. This issue is also of central importance to the Programme B Monitoring Board.

The data gathered refer to delays noted on the day of survey irrespective of whether the patient was declared medically fit for discharge or not, and any individual patient may have had more than one reason noted contributing to delay. This is a wider definition than that used to monitor delayed discharges by the Department of Health. The reason for including all of these patients is that this enables recognition of delays in the care pathway which are due to processes internal to the hospital system as well as those caused by external reasons due to other organisations.

COMMENT: Excluding the 'other' category; three significant factors emerged as a contributing to delay in both acute and community sectors: 'professional review' (which included social care worker assessments); 'awaiting care home placement' and delays attributed to social services (which includes providing funding for care home placements and organisation/ installation of equipment in people's homes).

For acute patients only, internal hospital processes were also identified as creating delay including review, ward rounds and investigations. The processes involved in moving people on to rehabilitation and other community services also appear to suffer delays.

Otherwise there appears to be a broad range of issues which cause delay and which indicate a number of different fronts that might be tackled simultaneously. The study has not taken into account nursing home availability, but it is recognised that there is a shortage of available places across the Oxfordshire which clearly has a bearing on some of the reasons for delay.

(**NB**: The survey provided sufficient data to enable more detailed analyses of delays to discharge to be undertaken, but this area of interest lies outside the immediate scope of the current project. It is noted here as work which can be subsequently pursued using the full database).

3. IMPLICATIONS FOR CAPACITY AND SERVICE DELIVERY

The results and supporting details have been supplied to the three localities developing details service plans, and further interrogation of the database analyses have informed these plans further. These details are not repeated in this report, instead we set out an overview of the scale of change that could be considered in line with survey findings.

In identifying possible capacity changes it is important to consider the practicalities of transferring patients to alternative care locations. In particular it would make no sense to transfer patients on acute wards that are in a post-acute phase and about to go home. In similar vein, if patients require care in a bed in an alternative location, but only for a few days, a transfer is likely only to increase overall length of stay, while the patient acclimatises to the new setting and staff get to know the patient.

For this reason we have developed an illustrative planning scenario that excludes patient numbers who:

- were being cared for within AEP criteria on the day
- were suitable for home based care, had been admitted within AEP criteria, and were discharged home within 7 days of being declared medically fit; or, if not declared medically fit on the survey date, were discharged within 7 days of the survey date
- were suitable for bed based care, had been admitted within AEP criteria, and were discharged home within 14 days of being declared medically fit; or, if not declared medically fit on the survey date, were discharged within 14 days of the survey date.

This represents a conservative approach to identifying the scale of change possible, but is a satisfactory way to deal with snapshot data, particularly as we only have follow up data for one month following the survey and therefore cannot fully describe length of stay patterns as a means of assessing total bed usage by patients not requiring an acute bed.

The detailed tables shown at figures 3.1 to 3.4 at the end of this section indicate the consequences for service levels of following first preferences for this limited group of patients. Each table shows the numbers for whom alternative care settings were identified in the survey (as graphed in figures 2.14 to 2.16), and the number when the above exclusions are applied (which amount to about 25% of the total).

The figures then show the impact on acute hospital beds, community hospital beds and community care ‘placements’ (ie the number of patients requiring care in their own homes). Changes are examined where the alternatives can be considered to fall within ‘intermediate care’ definitions, in that care is organised in the patient’s home, or in a bed with a rehabilitation focus. We have not considered the potential use of beds where rehabilitation is not required: these patients are mainly those considered to need care home placements, and the future availability and occupancy levels of these homes is outside the scope of current plans for intermediate care and community hospitals.

In summary the impact of expressed preferences on future capacity requirements are:

Current patient type	Acute hospital beds	Community hospital beds	Home based care
Acute hospital patients	-112	+69	+43
Non-acute ward patients	-26	-	+26
Community hospital patients	+2	-67	+65
Total	-136	+2	+134
North	-52	15	37
City	-38	10	28
South	-32	-29	61

Overall the most significant point to note is the large increase in community based care that is required if patients are to be more appropriately placed. This is expressed in terms of numbers 'on the books' at any one time, and more detailed work would be required to quantify the number and mix of staff to care for this number of patients. Locality plans have identified the detail of community based services that will be needed, and provide a framework for further quantification. Whatever the detail, we would expect that this sector would be the only one that would see significant growth in revenue across the county as a result of the various changes proposed in community plans.

Generally the requirement for community hospital places is little changed, although the large shifts from acute to community hospital, and from community hospital to home based care, imply a significant shift in the nature of the care provided by the community hospitals, with far greater emphasis on rehabilitation services than currently.

There is also significant difference between the localities in the equivalent calculations: North locality could use additional community hospital beds; South could reduce numbers (and this would free up resources for community based care, as envisaged in the South locality plan). City locality is shown above as needing 10 more community hospital beds but, as figure 3.3 shows, these are mainly substituting for 'non-acute' beds, which will all form part of the 'triptych' arrangement.

If community based services on the scale identified can be delivered, the impact on the demand for acute beds could be equally significant. For the North the indicated reduction will be principally at the Horton hospital, for City and South the reduced demand will predominantly affect the JR.

We have previously noted that the nature of the survey process, which captures data about the moment of admission and again as a snapshot on the 'day of care', will tend

to underplay the potential for preventive care approaches, notably in this context the use of 'rapid response' services to prevent admission. Rapid response is not identified separately in figures 3.1 to 3.4, but in practice will form part of the home based services and could reduce further the numbers of patients who require further bed based care once admitted.

Demography

The survey and subsequent analyses are focussed on a deliberately selected subset of the total patient population, dominated by the older population. If we assume no underlying improvement in the health status of the population, then the major impact on capacity demands will be the increases projected in the over 75 population, again reflected in locality plans.

To gauge the relative impact on this population of the over 75 projected growth over 4 years (using projections supplied by PHRU) the growth is applied to all patients over 75 identified in the survey, as shown in figure 3.5.

Figure 3.5 Impact of Demographic Projection on Patient Numbers

Locality	75+ projected growth in 4 years	75+ acute hospital	75+ community hospital	Acute growth	Comm hosp growth	Total growth
North	7.6%	147	26	11	2	13
City	0.0%	154	19	0	0	0
South	4.3%	130	121	6	5	11
Total	4.0%	431	166	17	7	24

Overall the potential impact of 24 beds is small compared to the extent of change in care location identified.

Mental Health Services

The parallel survey of mental health wards for older people undertaken on the same day identified that 23 out of 82 patients (28%) would have been suitable for care at home – if suitable non-specialist care services had been available, backed up by a specialist Intensive Mental Health Community Support and Treatment Team. A summary of the findings of the Mental Health wards survey is at appendix V.

Within the mainstream survey 19 Oxfordshire PCT patients were identified for whom mental health services were the preferred alternative care option, and for whom the 'exclusion criteria' described above did not apply. (There were also a few out of county patients). The survey form was designed to be non-specific about whether this should be a bed or community based service (it was felt that it would be difficult for surveyors to judge), but the mental health colleagues have expressed the view that the majority would also be suitable for community based services, if available.

The 19 patients are concentrated in South locality (Abingdon, Wantage and Witney hospitals) and in North locality in Horton hospital. The PCT mix is summarised in figure 3.6.

Figure 3.6 Patient Type and PCT where Mental Health Services are the Preferred Alternative

Current Location	North	City	South	Total
Acute wards	2	0	0	**2**
Non-acute wards	4	1	1	**6**
Community hosp	0	1	10	**11**
Total	**6**	**2**	**11**	**19**

Future bed capacity requirements could be reduced by these amounts if mental health services were incorporated in intermediate care plans. By chance the volumes are similar to those calculated to represent demographic pressures.

Clinical Processes

In all the calculations above there is a hidden assumption that practice will change seamlessly to meet the changed capacity configuration. In fact this seldom happens, indeed experience (including the limited evaluation to date of intermediate care schemes) indicates that the capacity created by new services is often filled by previously inappropriate unmet need, fuelled by existing professional practices, and lowered thresholds to admission and continuing stay in hospital. It is a truism to say that health care manages to capacity and not demand. The substantial benefits that are potentially available to the Oxfordshire health community here are dependent on agreement by clinical colleagues of new admission, referral, inpatient care and discharge practices.

In particular we note the need for:

- Agreement to minimise referral to community hospitals of those without substantive (restorative) rehabilitation requirements.
- Establishment of full rehabilitation services in the community hospitals
- Active discharge and transfer policies within key acute hospital wards, notably medical wards at the JR and Horton hospitals.
- Further development of risk management of individual and populations of frail elderly in the community including:
    - Chronic disease management programmes
    - Frailty prevention and health promotion
- Reduction of readmission rates
- Improved end of life care
- An innovative and redesigned long-term care programme.

Figure 3.1 Preferred Alternatives and Capacity Implications (All Oxfordshire PCTs)

	Alternatives identified		Potential impact on beds		
Alternative to current location of care	All first preference	1st preference adjusted for 'exclusions'	Acute Hosp	Community Hosp	Equivalent Community Care
Acute Hospital					
Home	19	5			0
Non Specialist Care	18	15	-15		15
Specialist Nurse	15	11	-11		11
Home & Rehab	28	17	-17		17
Acute Bed Only					
Non Acute Bed Only	11	7			
Non Acute Bed + Nursing	45	31			
Non Acute Bed + Rehab	108	69	-69	69	
Mental Health Care	6	5			
Other	16	13			
Non-acute beds					
Home	0	0			0
Non-specialist care	1	1	-1		1
Specialist Nurse	5	3	-3		3
Home + rehab.	25	22	-22		22
Acute bed	0	0			
Non-acute bed	5	4			
Non-acute bed + nursing	24	22			
Non-acute bed + rehab					
Mental health care	9	6			
Other	3	3			
Community Hospital					
Home	4	3		-3	3
Non-specialist care	24	18		-18	18
Specialist Nurse	15	15		-15	15
Home + rehab.	32	29		-29	29
Acute bed	2	2	2	-2	
Non-acute bed	16	12			
Non-acute bed + nursing	38	29			
Non-acute bed + rehab					
Mental health care	11	11			
Other	13	13			
Total	**493**	**366**	**-136**	**2**	**134**

Figure 3.2 Preferred Alternatives and Capacity Implications (North Locality)

Alternative to current location of care	Alternatives identified		Potential impact on beds		
	All first preference	1st preference adjusted for 'exclusions'	Acute Hosp	Community Hosp	Equivalent Community Care
Acute Hospital					
Home	3	2			0
Non Specialist Care	8	8	-8		8
Specialist Nurse	3	2	-2		2
Home & Rehab	6	3	-3		3
Acute Bed Only					
Non Acute Bed Only	1	1			
Non Acute Bed + Nursing	16	14			
Non Acute Bed + Rehab	44	29	-29	29	
Mental Health Care	2	2			
Other	7	5			
Non-acute beds					
Home	0	0			0
Non-specialist care	0	0	0		0
Specialist Nurse	0	0	0		0
Home + rehab.	12	10	-10		10
Acute bed	0	0			
Non-acute bed	2	1			
Non-acute bed + nursing	4	4			
Non-acute bed + rehab					
Mental health care	4	4			
Other	2	2			
Community Hospital					
Home	1	1		-1	1
Non-specialist care	7	6		-6	6
Specialist Nurse	1	1		-1	1
Home + rehab.	6	6		-6	6
Acute bed	0		0	0	
Non-acute bed	7	6			
Non-acute bed + nursing	3	2			
Non-acute bed + rehab					
Mental health care	0	0			
Other	4	4			
Total	**143**	**113**	**-52**	**15**	**37**

Figure 3.3 Preferred Alternatives and Capacity Implications (City Locality)

Alternative to current location of care	Alternatives identified		Potential impact on beds		
	All first preference	1st preference adjusted for 'exclusions'	Acute Hosp	Community Hosp	Equivalent Community Care
Acute Hospital					
Home	12	2			0
Non Specialist Care	5	3	-3		3
Specialist Nurse	5	3	-3		3
Home & Rehab	11	8	-8		8
Acute Bed Only					
Non Acute Bed Only	4	2			
Non Acute Bed + Nursing	11	6			
Non Acute Bed + Rehab	24	16	-16	16	
Mental Health Care	0	0			
Other	2	1			
Non-acute beds					
Home	0	0			0
Non-specialist care	0	0	0		0
Specialist Nurse	3	2	-2		2
Home + rehab.	7	6	-6		6
Acute bed	0	0			
Non-acute bed	1	1			
Non-acute bed + nursing	15	13			
Non-acute bed + rehab					
Mental health care	3	1			
Other	1	1			
Community Hospital					
Home	0	0		0	0
Non-specialist care	2	2		-2	2
Specialist Nurse	2	2		-2	2
Home + rehab.	3	2		-2	2
Acute bed	0	0	0	0	
Non-acute bed	2	1			
Non-acute bed + nursing	2	1			
Non-acute bed + rehab					
Mental health care	1	1			
Other	0	0			
Total	**116**	**74**	**-38**	**10**	**28**

Figure 3.4 Preferred Alternatives and Capacity Implications (South Locality)

Alternative to current location of care	Alternatives identified		Potential impact on beds		
	All first preference	1st preference adjusted for 'exclusions'	Acute Hosp	Community Hosp	Equivalent Community Care
Acute Hospital					
Home	1	0			0
Non Specialist Care	2	1	-1		1
Specialist Nurse	6	6	-6		6
Home & Rehab	3	1	-1		1
Acute Bed Only					
Non Acute Bed Only	5	4			
Non Acute Bed + Nursing	14	10			
Non Acute Bed + Rehab	24	16	-16	16	
Mental Health Care	1	0			
Other	4	3			
Non-acute beds					
Home	0	0			0
Non-specialist care	1	1	-1		1
Specialist Nurse	2	1	-1		1
Home + rehab.	6	6	-6		6
Acute bed	0	0			
Non-acute bed	1	1			
Non-acute bed + nursing	3	3			
Non-acute bed + rehab					
Mental health care	2	1			
Other	0	0			
Community Hospital					
Home	3	2		-2	2
Non-specialist care	15	10		-10	10
Specialist Nurse	12	12		-12	12
Home + rehab.	23	21		-21	21
Acute bed	2	0	0	0	
Non-acute bed	7	5			
Non-acute bed + nursing	32	25			
Non-acute bed + rehab					
Mental health care	10	10			
Other	9	9			
Total	**188**	**148**	**-32**	**-29**	**61**

References

1. Lang T, Liberati A, Tampieri A, Fellin G, Gosalves M, Lorenzo S, Pearson M, Beech R, Santos-Eggiman B, 1999, *A European version of the Appropriateness Evaluation Protocol*, Intl J Technology Assessment in Health care, 15 185-197.

2. Goddard M, McDonagh M, Smith D, 2000, *Annex E: Avoidable use of beds and cost-effectiveness of care in alternative locations.* In: Department of Health, 2000, Shaping the Future NHS: Long Term Planning for Hospitals and Related Services: Consultation Document on the Findings of the National Bed Inquiry - Supporting Analysis. (London, Department of Health).

Appendix I: Detailed list of wards surveyed

Hospital	Ward
Abingdon CH	Ward 1
Abingdon CH	Ward 2
Bicester CH	Only Ward
Brackley CH	Frost Ward
Brackley CH	Kent Ward
Brackley CH	Merry Ward
CH	14
CH	15
CH	16
CH	Geoffrey Harris
CH	John Warin
CH	linden
CH	Renal
Chipping Norton	Chipping Norton
Chipping Norton	Jubilee Ward
Chipping Norton	Male Ward
Chipping Norton	Tom Stroude Ward
OxComm	OxComm
Didcot CH	Didcot Community Hospital
Horton	Discharge
Horton	E
Horton	F
Horton	Juniper
Horton	Laburnum
Horton	Mulberry
Horton	Oak
JR	2A
JR	3A
JR	5A
JR	5F
JR	6A
JR	6F
JR	7A
JR	7B
JR	7C
JR	7D
JR	7E
JR	7F
JR	MAU
JR	SEUWD

NOC	Bone Infection Unit
NOC	Cecil
NOC	Foley
NOC	Mayfair
NOC	Randle
NOC	rivermead
NOC	Seddon
RI	Adams
RI	Bedford
RI	Beeson
RI	Bryan Matthews
RI	Nuffield One
RI	Osler
Towlands	Peppard
Wallingford CH	St Leonards
Wantage CH	Ridgeway Ward
Wantage CH	Whitehorse Ward
Witney	Linfoot
Witney	Wenrisc

Appendix II: Appropriateness Evaluation Protocol (AEP) Criteria

Appropriateness of Admission Criteria

Severity of Illness Criteria

A1. Sudden onset of unconsciousness or disorientation (coma or unresponsiveness).

A2. Pulse rate:
a) < 50 per minute
b) 140 per minute

A3. Blood Pressure:
a) Systolic < 90 or > 200 mm Hg.
b) Diastolic < 60 or > 120 mm Hg.

A4. Acute loss of sight or hearing.

A5. Acute loss of ability to move body part.

A6. Persistent fever:
a) 37.78 C (100 F) orally or
b) 38.33 C (101 F) rectally for >5 days

A7. Acute bleeding.

A8. Severe electrolyte or blood gas abnormality (any of the following):
a) Na < 123 mmol/L
Na > 156 mmol/L
b) K < 2.5 mmol/L
K > 6.0 mmol/L
c) Venous bicarbonate (unless chronically abnormal) < 20 mmol/L
Venous bicarbonate (unless chronically abnormal) > 36 mmol/L
d) Arterial pH < 7.30
Arterial pH > 7.45

A9. Electrocardiogram evidence of acute ischaemia; must be suspicion of a new myocardial infarction.

A10. Wound dehiscence or evisceration.

Medical Procedure

B1. Intravenous medications and/or fluid replacement (does not include tube feedings).

B2. Surgery or procedure scheduled within 24 hours requiring:
a) General or regional anaesthesia, or
b) Use of equipment, facilities, or procedures available only in a hospital.

B3. Vital sign monitoring every 2 hours or more often (may include telemetry or bedside cardiac monitor).

B4. Chemotherapeutic agents that require continuous observation for life-threatening toxic reaction.

B5. Intramuscular antibiotics at least every 8 hours.

B6. Intermittent or continuous respirator use at least every 8 hours.

Appropriateness of Day of Care Criteria

C. Medical Services

C1. Procedure in operating theatre that day.

C2. Scheduled for procedure in operating theatre the next day, requiring pre-operative consultation or evaluation.

C3. Cardiac catheterisation that day.

C4. Angiography that day.

C5. Biopsy of internal organ that day.

C6. Invasive central nervous system diagnostic procedure (eg. lumbar puncture, cysternal tap, ventricular tap).

C7. Any test requiring strict dietary control for the duration of the diet.

C8. New or experimental treatment requiring frequent dose adjustments under direct medical supervision.

C9. Close medical monitoring by a doctor at least 3 times daily (observations must be documented in record).

C10. Operative day for any procedure covered in numbers 1, or 3-7 above.

D. Nursing/ Life Support Services

D1. Respiratory care – intermittent or continuous respirator use and/or inhalation therapy (with nebuliser, intermittent positive pressure breathing) at least three times daily.

D2. Parenteral therapy – intermittent or continuous intravenous fluid with any supplementation (electrolytes, protein, medications).

D3. Continuous vital signs monitoring, at least every 30 minutes, for at least 4 hours.

D4. Intramuscular and/or subcutaneous injections at least twice daily.

D5. Intake and output measurement.

D6. Major surgical wound and drainage care (eg. chest tubes, T-tubes, haemovacs, penrose drains).

D7. Close medical monitoring by nurse at least 3 times daily, under doctor's orders.

E. Patient's Condition

Within 24 hours on or before day of review:

E1. Inability to void or move bowels (past 24 hours) not attributable to neurological disorder.

Within 48 hours on or before day of review:

E2. Transfusion due to blood loss.

E3. Ventricular fibrillation or electrocardiogram evidence of acute schaemia, as stated in progress notes or in electrocardiogram report.

E4. Fever at least 37.78 C (100 F) orally or at least 38.22 C (101 F) rectally, if patient was admitted for reason other than fever.

E5. Coma – unresponsive for at least one hour.

E6. Acute confusional state not due to alcohol withdrawal.

E7. Acute haematological disorders, significant neutropenia, anemia, thrombocytopenia, leucocytosis, erythrocytosis, or thrombocystosis, yielding signs or symptoms.

E8. Progressive acute neurological difficulties.

Appendix III: Balance of Care Survey definitions

Two different forms were used in the survey: Form 'A' for the acute hospital sites (NOC and ORH) and Form 'B' for the 15 community hospital sites.

Both forms had a similar structure and with surveyors asked about the potential for care settings for patients as:

a) alternatives which might have prevented their current admission (in hindsight)

b) alternatives for the care currently being received on the day of the survey

In addition, surveyors were asked to identify:

c) Whether a patient was receiving rehabilitation, and if so, which type (from a selection of three).

d) Any identifiable delays to the patient's discharge process.

The tables below provide definitions of the alternatives specified on the survey forms and definitions of the types of rehabilitation. Note that all of these definitions were discussed in depth with surveyors in their training sessions.

a) Alternative care settings to admission

The specified alternatives to admission were identical on both survey forms

SPECIFIED ON SURVEY FORM	DEFINITION
Home	At home (alone or with a carer) but with no additional supporting services
Home with limited domiciliary care	Care assistant support only for social care tasks
Home with non-specialist care support	General community nurse support (with or without care assistant support)
Home with specialist nurse	Specialist nurse skills - eg diabetes, stroke, stoma - (with or without care assistant support)
Home with rehabilitation support	Support at home from therapy services (with or without care assistant or nursing support)
Non-acute bed without rehabilitation support	Placement in community hospital, residential or nursing care home (excluding MH)
Non-acute bed with rehabilitation support	Placement in community hospital, residential or nursing care home (excluding MH) with direct input from therapy services
Mental health care	Placement in a specialist care home or other institution; or specialist support at home
Rapid Access to Outpatient/ Day hospital	At home (alone or with carer and with or without care assistant support) with immediate access as required.
Other	Please specify

b) Alternative care settings to that received on day of survey

The specified alternatives to treatment on the day of the survey were identical on both survey forms with one exception: on survey form B an additional alternative was that a patient should be in an acute hospital bed (the implication being a deterioration in their condition since admission to a non-acute hospital bed).

Home with no additional support	At home (alone or with carer) with no additional supporting services
Home with non-specialist care	General community nurse support (with or without care assistant support)
Home with specialist nurse	Specialist nurse skills - eg diabetes, stroke, stoma - (with or without care assistant support)
Home with rehabilitation support	Domiciliary support from therapy services (with or without care assistant or nursing support)
Acute bed (NB: form B only)	Acute hospital care
Non-acute bed	Residential home (no nursing or therapy input)
Non-acute bed with nursing support	Placement in community hospital or nursing care home (excluding MH)
Non-acute bed with rehabilitation support	Placement in community hospital, residential or nursing care home (excluding MH) with direct input from therapy services
Mental health care	Includes placement in a specialist care home or other institution; or specialist support at home
Other	Please specify

c) Type of rehabilitation

The definitions of rehabilitation used were identical on both survey forms

- *Recuperative*. This is 'low-level' rehabilitation not requiring inputs from trained physio or OT staff. This type of patient may be recovering from a (relatively minor) recent illness or recurrence of a chronic condition and are unable to fully cope at home. They require only 'maintenance levels' of rehabilitation (which may involve limited inputs from physio or OT assistants) and, importantly, time to recover and return to full health.
- *Restorative*. This is more substantive rehabilitation performed mainly by qualified OT and physio staff. This type of patient may be recovering from a more major illness or recurrence of a chronic condition, or from a substantial acute episode (such as a major surgical or orthopaedic operation). In this case the patient requires substantial inputs of therapy with the aim and expectation of restoring them to their previous levels of mobility and activity.
- *Reconstructive*. This is for patients requiring the most substantial levels of rehabilitation from qualified and specialist therapy staff and specialist medical

staff. This type of patient is recovering from a very severe condition (for example from a major stroke) where they require substantial levels of therapy to develop new skills such as walking following an amputation . They may or may not be expected to regain their previous levels of mobility and activity but hope to achieve a degree of independence.

d) Delays to the discharge process

The specified delays to discharge were identical on both survey forms

Review by other care professional	Specify which type of care professional (NB: includes both health **and** social service care professionals)
Ward Round	
Investigations	Specify which (pathology, radiology, etc)
Rehabilitation to be arranged	Specify which (physio, OT, S&LT, etc)
Other NHS community services	Such as community hospital or domiciliary services - please specify. Health services only.
Social Services	Specify reason (excludes 'awaiting review')
Carers/ relatives to be organized	
Care Home placement to be arranged	Please specify residential or nursing home
Other	Please specify

APPENDIX IV: Mapping PDU and Balance of Care survey descriptions

PDU CARE DEFINITION	PDU CARE SETTING	BALANCE OF CARE SURVEY DEFINITION
Acute I	Acute hospital bed	Acute care (within AEP criteria) - emergency cases
Acute II	Likely to be in a community hospital or 'non-acute' bed in acute hospital. [Not considered in PDU definitions, but care in own home, while less likely, may be possible]	Sub-acute care
Acute III	Acute or community hospital bed.. Related to elective surgery; suitable for DTC. [Not considered in PDU definitions but own home may be possible]	Acute care (within AEP criteria) – elective cases (only minority of surgical patients were included in the survey, and no day cases)
Geratology Specialist Care	'Non-acute' and acute beds in acute hospital	Not a separate survey category, but geratology specialist care found involved mainly in rehab and sub-acute care, with limited involvement in acute care
Intermediate Care I	Usually found in a specialist hospital setting	Reconstructive rehabilitation (requiring specialist rehab skills)
Intermediate Care II	Currently found in acute and community hospital beds. [PDU does not appear to allow for 'own home' although this is possible and identified in survey. Care home is another potential location]	Restorative rehabilitation (requiring trained therapy input)
Intermediate Care III and Domicilliary Intermediate Care (PDU definitions identical, relating only to different care settings)	Usually found in community and 'non-acute' beds. Often take place in own home/ care home	Recuperative rehabilitation (largely requiring no direct input from trained therapists, but indirect involvement through the supervision/ care management process)
Specialist palliative care	Acute and community hospital settings and hospices	Oncology wards and hospices were not included in survey; therefore this group is largely excluded.
Generalist palliative care	Usually found in community hospitals. Own home/care home/ hospice also possible.	Palliative care (as identified in the community hospital part of survey)

APPENDIX V: MENTAL HEALTH CARE BED USAGE SURVEY

Summary

1. Scope:

- The bed survey was carried out covering all mental health older adult wards, a total of 82 beds.
- The wards are mixed in terms general diagnostic criteria, and will contain people with a dementia, depression or a psychosis.
- Wards relate to specific GP surgeries, and thus PCTs. However, through bed shortages patients are admitted wherever a bed exists and analysing data by locality has proved impossible at this time.

2. Referral Patterns.

- Half of the referrals (51%) were admitted from home.
- 12% of admissions were admitted from care homes (nursing or residential).
- A quarter of all referrals to mental health beds came from an acute general hospital *(Sub group 1.)*

Table V.1 Diagnoses.

Ward	all Dementia	Mood Disorder	psych-osis	No diag.	**Total**
TOTAL	**36**	**34**	**8**	**1**	**79**
Percentage	**46%**	**43%**	**10%**		

- The diagnoses were typical for the care group.

3. Risk Factors.

- Patients averaged 2.37 risk factors each.
- 34 people had a risk factor of living alone, and 47 cases where self-neglect was a risk factor.
- Of those 26 had both risks and 25 a single risk, with 18 self neglect and 7 living alone.

Table V.2 Risk factors

	Multi-Drugs	Breakdown care pack	Lives Alone	Falls	Self harm	Self neglect	Poor Mobility	Incapacity of carer	Other	**TOTAL**
Cherwell	14	3	7	0	2	8	2	3	1	**40**
Sandford	1	0	7	1	2	6	0	4	0	**21**
Allen	3	2	7	4	3	10	4	3	1	**37**
Moorview	4	0	5	7	0	7	6	6	0	**35**
Fiennes	2	1	3	1	0	9	4	10	2	**32**
Windrush	0	0	5	1	4	7	1	3	1	**22**
TOTAL	**24**	**6**	**34**	**14**	**11**	**47**	**17**	**29**	**5**	**187**

- The rates of older people living alone and being at risk of self-neglect support the need for additional domiciliary home care.

4. Expansion of Intermediate Care

- No specific referral criteria such as AEP were used in the mental health process.
- 23 (40%) could have remained at home with a specialist mental health intensive support package (Intensive Mental Health Community Support and Treatment Team). The above cohort is analysed in **sub group 2** below.
- This supports the development of a specialised ICT for mental health.
- In a further 7 cases other alternative treatments to admission were suggested.

- There is also evidence from bed occupancy figures that delayed discharges are predominantly those with a dementia, and that maintaining people in their own homes until permanent care is required will free up significant bed resources.

Table V.3 Alternatives to existing care

In patients	No. of individuals where no approp. alternative	No of individuals where alternative(s) indicated
TOTAL	**49 (62%)**	**30 (38%)**

5. Transitional care

Table V.4 Transitional care patients

	Assessment	Respite	Treatment	Transitional	Palliative	Other	Total
No of patients	**8 (10%)**	**3 (4%)**	**33 (42%)**	**32 (40%)**	**1 (1%)**	**2 (3%)**	

- 32 patients (40%) were receiving transitional care on audit day. All of these people required either a permanent care placement or to be discharged home with a care package. There were no costs associated with transferring patients between care options as with general hospital transfers.

Table V.5 Alternative care on day of audit by ward

Ward	In Patients	No. of individuals where alternative care venue proposed.	No. of individuals where NO alternative care venue proposed.
C	16	12 (75%)	4 (25%)
S	13	10 (77%)	3 (23%)
A	14	8 (57%)	6 (43%)
M	11	10 (91%)	1 (9%)
F	14	8 (57%)	6 (43%)
W	11	6 (55%)	5 (45%)
	TOTAL	**54 (68%)**	**25 (32%)**

Table V.6 Alternative care settings

	Home with non specialist care	Home with specialist care	Home with medication management	Non-acute bed with rehab.	MH Day Hospital	Spec (Mental Health) care home bed	Non specialist care home bed	Other *
Number	**1**	**17**	**4**	**4**	**3**	**26**	**13**	**4**

*** 'Other' suggested care options (one each)**

- DGH with mental health team support
- Supported living
- Sobell House (palliative)
- Return to own county (Essex)

6. Palliative Care

- OMHT will provide palliative care where the clinical team feels there would be some benefit to the client, that we can provide an acceptable quality of care and that it complies with family wishes.

7. Domiciliary Intermediate Care

- The high numbers of patients who could have been managed at home with specialist home care, non-specialist home care or medication management, all support the need for increase in domiciliary Intermediate Care.

8. General Hospital Liaison

- The high numbers of referrals from JR2 and Hortion Hospitals support the need fro readily accessible, high quality psychiatric assessment. Previous research (Smith, Snowball & Wilkinson) indicates the improved response rate, improved client and referrer satisfaction and reduction in intensity of aftercare.
- 5 patients could have been discharged home from a DGH with suitable support available. This would have released valuable psychiatric assessment beds.

Sub group 1: Patients admitted from the JR2 or Horton General Hospitals

Table V.7 Sub-group 1 diagnoses

Diagnosis	No. of patients	Percentage
Depression	10	53%
Dementia	7	37%
Psychosis	1	5%
Not yet diagnosed	1	5%

- A higher percentage of patients with depression were admitted form DGHs than the norm (53% versus 44%).

Table V.8 Sub-group 1 options on admission

Options on admission	No of Patients	Percentage
Blank (=no appropriate alternative)	14	67%
Home with intensive mental health support	3	14%
Other	2	10%
Home	1	5%
Respite in Care Home	1	5%

- 5 (26%)of patients admitted from a DGH could have been cared for at home were appropriate community resources available.
- The remainder were wholly appropriate admissions.

Table V.9 Sub-group 1 options on day of audit

Options on day of audit	No of Patients	Percentage
Blank (= no appropriate alternative).	6	32%
Specialist MH care home	6	32%
Home with MH home care.	4	21%
Home with medication management	1	5%
Non-specialist home care.	1	5%

- Of those admitted from a DGH a third remained requiring a mental health bed.
- 37% required a care home placement.
- The same 5 could have gone home with community support.

Sub Group 2: Patients felt to have been treatable at home with ICT (Mental Health) on date of admission.

Table V.10 Sub-group 2 - Venue admitted from

Home	Residential home	Acute General Hosp.	Fair Mile Hosp.	Total
15	**3**	**3**	**2**	**23**

- 65% of those who could have been cared for in the community lived at home.
- These results support an increased intermediate care option.

Table V.11 Sub-group 2 - Diagnosis

Dementia	Depression	Psychosis	No Diagnosis
10	**9**	**3**	**1**

- There was a representative mix of diagnoses.

Table V.12 Sub-group 2 - Risk Factors

	Multiple drug	**Lives Alone**	**Falls**	**Self Harm**	**Self Neglect**	**Mobility**	**Incapacity of carer**	**Other**
No. of mentions	4	7	2	1	9	4	12	5
% of total by individual risk	17%	21%	14%	9%	19%	24%	41%	100%

- Incapacity of carer is over-represented, and therefore the major risk that an Intermediate Care service was thought to be able to alleviate.

9. Discharge Planning

- Discharge care plans were evident in 77% of all clients and there was evidence of an ethos of starting discharge planning on the day of admission.

Appendix VI: SURVEYORS, 7 May 2003

Mary Applegate, Cherwell Vale PCT
Rob Avis, Cherwell Vale PCT

Jo Bartlett, NOC
Lesley Bennett, Div A, ORH
Sheila Benton-Jones, SW PCT
Joanne Bernhaut, Oxford City PCT
Helen Bisp, SW PCT
Darren Bowles, Div A, ORH
Michelle Breed, Cherwell Vale PCT
Sharon Brown, NOC

Jill Calvert, Div B, ORH
Jacqui Connelly, Oxford City PCT
Jonathan Coombes, SW PCT
Alison Cornall, Div A, ORH
Wendy Corner, NE PCT
Mandy Cox, SW PCT

Maggie Donovan, SW PCT
Michelle Doran, City PCT

Robert Ferris, Oxford City PCT
Fay Fox, Div B, ORH
Lyn Frizzell, NOC

Jo Gerrish, Cherwell Vale PCT
Katie Grant, SE PCT

Wendy Hall, Cherwell Vale PCT
Cathryn Hammill, SW PCT
Vi Harrison, NOC
Yasmeen Hasnain, Div B, ORH
Sue Hawgood, Div A, ORH
Nigel Hessey, Cherwell Vale PCT
Sue Hunt, NOC

Penny Kane, Div A, ORH
Helen Kirk, SW PCT

Jacqueline Lee, Cherwell Vale PCT

Rachael Marsden, NOC
Steve McCorley, Oxford City PCT
Frankie McGaurin, ORH
Kathy Middleton, SW PCT

Joseph Ngeh, Div A, ORH
Pat Nutter, Cherwell Vale PCT

Judith Oliver-Jones, Div B, ORH
Nicki Orpen, NOC

Wendy Perrin, NOC

Alis Racey, NOC
Ann Readhead, Div A, ORH
Adele Reece, Cherwell Vale PCT
Mike Roberts, Div A, ORH
James Ross, Div B, ORH
Heather Ryan, NOC

Gwen Skennerton, SW PCT
Claire Smith, Div A, ORH
Shiela Snodgrass, Oxford City PCT
Jo Sturgess, Div A, ORH

Heather Toft
Fiona Turner, NOC

Louise Westermann, Oxford City PCT
Martin Westwood, Div A, ORH