Single Room Provision
Steering Group Report

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EXECUTIVE SUMMARY

Following a Peer Review of the European Union Health Property Network (EuHPN) Report titled Hospital Ward Configuration: Determinants Influencing Single Room Provision, a Steering Group was established in March 2006 to take forward the recommendation that further evidence in a Scottish context should be gathered. This Group’s membership was drawn from those involved in the Peer Review event who were experts in their subject and who represented a broad range of professional disciplines, both from NHSScotland and Scottish Government Health Department (now Health Directorates).

This Steering Group had as its remit:

To consider the evidence supporting the establishment of the future level of single room provision within new-build hospitals and in the refurbishment of major hospital facilities in Scotland.

The Group also considered the related issue of the appropriate space around each bed where these are not located in a single room. For the purpose of the report a single room was defined as:

“a room with space for one patient which normally contains, at a minimum, a bed, locker, clinical wash-hand basin and also sanitary facilities comprising a toilet, shower and wash-hand basin”.

The Group did not consider the requirements for “specialised isolation rooms” with fully engineered ventilation.

Members of the Steering Group recognised that there was a need for information which was specific to Scotland and commissioned a number of reports/studies as follows:

- Literature Review (Annex 5)
- Nurse Staffing Report (Annex 6)
- Public Attitude Survey (Annex 7)
- Financial Impact Study (Annex 8)
In addition to these reports the Group benefitted from a survey undertaken at the Golden Jubilee National Hospital of patients who had experience of both single room and multi-occupancy room provision. In relation to the financial impact of an increased level of single room provision, the Group referred to the outcome of a study undertaken in Northern Ireland of the financial impact of increasing single room provision from 50% to 100%.

Having identified and evaluated options appropriate in a Scottish context, the Steering Group noted that it is necessary to strike a balance between service quality and the opportunity cost in an environment which is influenced not only by clinical and “building” interest but also by the issue of patient safety and public expectation. It was also seen as crucial that any conclusions and recommendations made regarding single room provision in future new-build and refurbished in-patient accommodation should be future-proofed, and able to accommodate the changing standards expected by patients given the lifecycle of such facilities often extend beyond 50 years.

The Steering Group’s recommendation was that all new-build hospitals or other healthcare facilities which provide in-patient accommodation there must be a presumption that all patients will be cared for in single rooms, unless a lower percentage provision for specific patient groups has been justified to and approved by the Scottish Government Health Directorate (SGHD) as part of the Business Case approval process. Those patient groups for which 100% single room provision is considered mandatory must be agreed with the SGHD’s Chief Medical Officer.

For refurbishment projects, the Steering Group recognised that it is extremely difficult to establish a definitive proposal as each of the buildings involved will present unique problems. That said, the Group recommended that in developing proposals for refurbishing healthcare facilities which include in-patient accommodation, Health Boards must seek to provide the maximum number of single rooms consistent with the approach recommended for new build healthcare facilities, and that the overall level of single room provision must be 50% as an absolute minimum.

For bed spacing, the Group considered that the current advice remains appropriate.
The Group also recognised a need for further work to be carried out and has undertaken the first stage of a Delphi Consultation exercise with the clinical speciality leads designated by the SGHD’s Chief Medical Officer. When completed, his exercise should identify those specific patient groups for whom 100% single room provision should be mandatory.

The Group also agreed that it would be helpful to Boards in developing projects to make use of a Risk Matrix Tool. This could be based on the SCART (Statutory Compliance Assessment Risk Tool) recently developed by Health Facilities Scotland for use by all NHS Health Boards.
INTRODUCTION

NHSScotland is currently engaged in the largest capital development programme in its history. Its property and other physical assets must be fit for purpose and, as far as possible, must be future-proofed to meet the changing technological demands to which it will be subject. Furthermore, it is imperative that these assets address the changing public expectations not only of the current generation, but also of generations to come. Already, a number of major hospital facilities have been replaced but many significant projects are still in development, including the new South Glasgow Hospitals which will provide over 1100 beds in the new adult’s hospital, with a further 250 in the new children’s hospital. In addition to the replacement of major hospital facilities, there is a continuing programme of refurbishment of the existing NHSScotland hospital estate. The new infrastructure which will emerge from this programme of activity will form the cornerstone of our hospital care system right into the 21st Century.

To inform capital development plans, we need to establish parameters for the care environment which these facilities must offer for the patients, staff and visitors who will use them. A key aspect of this care environment which needs addressing is the proportion of single rooms to be provided in our new-build hospitals or in major facilities which are being refurbished.

The purpose of this paper is to consider the available evidence which supports a higher level of single room provision than currently provided by the NHSScotland estate, and to make a recommendation on the level of single room provision to which all new-build hospital accommodation should be built and which all refurbishments of major hospital facilities must strive to provide.
BACKGROUND

The provision of single rooms and the related issue of adequate space around beds in hospitals have been topics of considerable discussion in recent years and these related issues are seen as important factors in achieving a number of key aims in the care and treatment of patients. These aims include:

- Preventing and controlling healthcare associated infections (HAIs).
- Enhancing patients’ privacy, dignity and confidentiality.
- Providing adequate space around the bed, arranged in a functionally suitable way to enable clinicians and carers to undertake their work efficiently and safely, particularly when using equipment necessary for patient care.

The publication of a report commissioned by NHS Estates in England in November 2004 titled *Hospital Wards Configuration: Determinants Influencing Single Room Provision* gave added profile of this topic.

Given the significant capital investment programme underway in Scotland and the lack of a clear policy on the level of single room accommodation deemed appropriate when planning new-build and/or the refurbishment of existing major facilities in Scotland, it was considered appropriate that this report should be peer reviewed as a first step in developing thinking on how we in Scotland should address the issue. This Peer Review event was held in November/December 2005 and was sponsored and facilitated by the Scottish Executive and NHS Education for Scotland.

The Peer Review Group comprised experts from across Scotland representing a broad range of professional disciplines. It also involved the authors of the EU Health Property Network (EuHPN) Report and the most influential of the expert contributors to that report. The presence of these European experts added considerably to the outcomes generated by the Peer Review event.
This peer review had 4 clear aims which were to:

- Undertake a critical review of the EuHPN report in the Scottish context.
- Identify gaps in that work.
- Recommend additional work.
- Consider resources required to take this process forward.

This event was the first in a 3-stage process which was be followed by the formulation of a policy recommendation to the Health Minister and if it was deemed appropriate for a policy to be introduced, the development of guidance to support the emergent policy.

The 2004 EuHPN Report included among its recommendations that:

- Guidelines should promote a good practice range of between 50% and 100% single rooms – [and that] there is a strong “confidence” base for this judgement.

- Design decisions on HAI risk and other single room determinants should relate to the profile of the hospital and its local catchment population – not on the evidence of currently observed rates of infection or standards but on a predictive model that translates population need and infection risk into a service language that is useful for planning and design.

These and the other general principles contained in the EuHPN Report together with the recommendations of the Property Environment Forum’s report *Space Around the Bed* were accepted as valid conclusions by the Scottish experts at the Peer Review event. Those participating also acknowledged that specific evidence in a Scottish context was essential across a range of issues, particularly patient choices and preferences of accommodation provided in hospitals; the impact of single rooms on staffing ratios and ways of working; and on the economic implications of a move to a higher level of single room provision. The Peer Review Group concluded that consideration be given to establishing a small Steering Group to take forward the
recommendation that further evidence in a Scottish context should be gathered possibly leading to the Steering Group developing a policy recommendation.

This approach was endorsed in the Next Steps outlined in the Peer Review Report – see Annex 1 for a copy of the Peer Review Report.
SINGLE ROOM STEERING GROUP

Based on the Next Steps identified in the Peer Review report the then Health Department established a Steering Group with members drawn from those who participated at Peer Review event, with the Health Department providing the Chair and secretariat support to the Group. Members of the Steering Group were selected to ensure that there was representation of as wide a range of professional interests as possible including Directors of Nursing, Directors of Finance, the Scottish Microbiology Forum, the Chief Medical Officer, Health Analytical Services and Property and Capital Planning interests both from the Department and NHSScotland.

This Group had as its remit:

To consider the evidence supporting the establishment of the future level of single room provision within new-build hospital facilities and in the refurbishment of major hospital facilities in Scotland.

In addition the Group undertook to consider the related issue of the appropriate space around each bed where these are not located in a single room. This further advice to relate only when planning any new in-patient accommodation or a refurbishment of an existing major healthcare facility.

For the purpose of the Group’s work a single room was defined as:

A room with space for one patient which normally contains as a minimum a bed, locker, clinical wash-hand basin and also a sanitary facility comprising a toilet, shower and wash-hand basin.

The Group has not considered the requirements for ‘specialised isolation rooms’, (with fully engineered ventilation in monitored rooms).
The Steering Group Approach

The Peer Review Event was structured to consider the impact of single room provision within healthcare facilities across 4 principal areas of concern. These were:

- The control of infection.
- The patient environment.
- Operational issues, principally the impact on nurse staffing ratios.
- Financial issues around increased costs and value for money.

It was agreed that this was an appropriate approach for the Steering Group to adopt as it would focus the energy of the Group on those areas which were of greatest concern and which were likely to have the most influence in shaping any policy outcome.

Control of Infection

Members of the Group accepted that from a Healthcare Associated Infection (HAI) perspective there was a generally held view that a high level of single room provision assists in managing the spread of infection, but that there was very little reliable evidence supporting the direct link between the incidence of HAIs and the level of single room provision. To address this the Group agreed to undertake a high level literature search to augment the literary evidence produced as part of the EuHPN Report.

The Patient Environment

To inform its thinking on the patient environment, the Group decided that there would be a significant benefit identifying the preferences of the Scottish population on the type of accommodation in hospital. It was therefore agreed that a Public Attitude Survey should be commissioned as part of the work of the group.
Operational Issues

The level of nurse staffing was recognised as being a major area of concern. To establish the impact of any proposed increase in the level of single room provision on nurse staffing ratios the Group agreed to commission a report which would be based on input from the nursing community across NHSScotland, including a significant input from Nurse Directors.

Financial Issues

The impact of high levels of single room provision on both the initial capital cost of providing new or refurbishing an existing healthcare facility, and the revenue costs in maintaining these facilities over the building’s lifetime, were identified as other major areas of concern. Health Facilities Scotland (HFS) was asked to consider The Atkins Report produced in 2004 by Atkins Consulting Ltd on behalf of NHSScotland, which focussed on the impact on capital and revenue costs if bed spacing was to be significantly increased from current guidance. HFS also undertook a series of discussions among Facilities leads from Health Boards on the impact on capital and revenue costs of an increased level of single room provision.

The Baseline Position

It was felt important to establish a baseline position on the level of single room provision across the existing NHSScotland estate although it was also recognised that there could be no “quick fix” solution to significantly changing this position. If, as the evidence from other healthcare systems suggests, there is a trend is towards significantly higher proportions of single room accommodation then there should be an ongoing commitment on NHSScotland’s part to raise the overall level of single room provision across the estate and not simply to pursue an approach which is only applicable in new-build projects or where major healthcare facilities are being refurbished. In other words, over time the NHS in Scotland should seek progressively to raise the level of single room provision across the entire estate.
The outcome from this Steering Group would be a report to be submitted to the Chief Nursing Officer to inform a decision on the need for a national policy regarding the level of single room provision across NHSScotland and what further actions, if any, are required before a final decision can be taken.

Membership of the Single Room Steering Group is shown at Annex 2
INTERIM STATEMENT

The Steering Group recognised early in its deliberations that to collate the evidence necessary to produce a robust report would take some time and in order to provide a clear sense of direction to those involved in planning new-build projects or the refurbishment of major healthcare facilities, members agreed that it was appropriate to issue an Interim Statement to Health Boards. This Interim Statement largely reflected the outcome of the Peer Review event where the general principles of the EuHPN Report were endorsed. This statement was issued to Health Board Chief Executives on 21 February 2007 and advised those involved in planning for the construction of new or the refurbishment of major existing healthcare facilities that it was appropriate to provide an overall single occupancy room level of between 50% and 100%. The appropriate level within that range was a matter for each individual NHSScotland Board to consider based on 4 broad criteria. These criteria were:

- Science-based decisions relating to the clinical and nursing care of patients and overall hygiene standards;
- Value-based judgements about the nature of personal services and responsiveness to the local community and generational cultures;
- Operational needs, for example managing volatility and demand or changing clinical needs and priorities; and
- The need to balance these against economic considerations.

The advice contained in the Interim Statement was to help Boards make decisions based on sound clinical judgements, the profile of the hospital and its local catchment population. The importance of the conditions which would be treated, the models of care for the delivery of treatment; and the changing aspirations of patients over future years, were highlighted as the key decision-making criteria rather than basing decisions on past trends and social patterns.

The Interim Statement also gave guidance on the issue of appropriate bed spacing which was based principally on the ergonomic criteria required for patient handling and other activities which take place in the immediate vicinity of the bed. The
minimum space between beds was recommended to be not be less than 3.6m x 3.7m.

The full text of the Interim Statement is included as Annex 3.
THE EVIDENCE BASE FOR CHANGE

Census of Current Provision of Single Room Accommodation

This census was undertaken with the assistance of ISD based on a questionnaire issued to Health Boards. It is not intended to be a definitive statement on the level of single room accommodation within the NHSScotland estate but to give an indication of the level of such provision.

**Figure 1:** The level of provision of single room accommodation by NHSScotland Board at the time of the survey in November/December 2006.

A fuller breakdown of the current numbers of single rooms in Scottish hospitals is provided at Annex 4.
The key points which emerged from this census were:

- Single room provision was clustered between 22%-30%.
- 50% of current single rooms have a WC, WHB and shower.
- 22% of single rooms currently have no en-suite facilities.
- Of all staffed beds:
  - 10% are allocated to single rooms in acute medicine and surgery
  - 9% are allocated to single rooms in mental health
  - 4% are allocated to single rooms in geriatric medicine.

Recognising that this census represented a snapshot in time largely influenced by the historic, incremental approach to hospital provision in Scotland, the Group sought a perspective on the current trends by considering a cross-section of comparatively recent Scottish projects. These projects had either been completed recently or were well advanced in the project planning stage. Thirteen projects were analysed which showed a wide range of single room provision from 20% to 98%. Within the acute sector the range was much narrower being 23% to 52%. This exercise found there to be a distinct trend towards a higher proportion of single rooms in these projects. This reflected the current trend across all healthcare systems.

Since that census was conducted there have been examples of single room provision being planned at significantly higher percentages than we have seen before in Scotland. These examples include the proposal to complete the new South Glasgow Hospitals project, where 1109 beds will be developed in the new adult hospital. At the Outline Business Case stage of this project, the beds were planned to be accommodated within single rooms with en-suite facilities. The children’s hospital which is also being developed on the Southern General Hospital Campus has a planned single room provision of 57%.
Literature Review

Much of the focus of the Group’s early discussions centred around the control of infection, where the view generally held was that a high percentage of single room provision would help manage Healthcare Associated Infections (HAIs). It was recognised that the scientific evidence base supporting single room provision and the incidence of HAI is not robust. The Group concluded that it would be appropriate as an initial task to undertake a high level review of the literature which would examine any additional evidence not included in EuHPN report. This work was taken forward by two Infection Control Nurses from NHS Scotland on behalf of the Steering Group. This high level literature review not only considered the literature around the control of infection but also reviewed the literature around healthcare associated infections, patient environment, the impact on staffing ratios and financial impact.

This element of the steering group’s work concluded that the review undertaken by Dowdeswell et al (2004) provided the most comprehensive overview of the available literature at that time, further supporting the EuHPN Report conclusion that there is insufficient available evidence to determine a scientifically based estimate of the optimum ratio of single room provision.

This literature review also highlighted some significant gaps in previous papers, particularly the systematic failure to provide a definition for a single room. This was perceived as an important factor as it would appear that patients’ experiences may differ depending on the style and facilities provided in a single room.

It was evident from the literature review that there remains a lack of reliable scientific evidence on the benefits, particularly from an infection control perspective, of single room provision. There is also a lack of evidence around the actual level of single room provision which should be provided. The review also highlighted that there is an increased public expectation that our healthcare facilities should provide single room accommodation but recognised that existing evidence was inconclusive and that therefore there is a need for ongoing research on the impact on treatment, care and recovery in single and multi-bed rooms. The view of the Steering Group is that it
is intuitively convincing that the greater use of single rooms, the better the chances of preventing and controlling infection.

The full text of the Literature Review is contained at Annex 5.

**Nurse Staffing Report**

This Report was based on a survey of the senior nurses and midwives from all NHSScotland Health Boards carried out from July to September 2006 with a further opportunity afforded to all Nurse Directors to comment and contribute through structured discussion in the early part of 2007.

It was evident from the response from senior nurses and midwives that there was a considerable level of awareness of proposals to increase the provision of single rooms in new healthcare facilities. The nursing community considered whether there was a need to preserve some multi-occupancy rooms in some patient care areas, i.e. where patients are more dependent on nursing care, where patient mobility is reduced or where greater levels of supervision are required. It was recognised that such patients can feel insecure and isolated and are often reassured by nurse visibility. The report concluded that this could be achieved by adequate staffing levels and appropriate design and the consensus within the Report was that 100% single room accommodation should be the starting point with risk assessment processes used to identify in which cases this level of provision shouldn’t apply for particular patient groups.

The Report also concluded that there was a consensus amongst Nurse Directors that single room accommodation in itself should not increase the number of nurses required to care for patients, although recognising that where appropriate staffing levels are already compromised, the position could be exacerbated by a move to 100% single room accommodation. This Report made a number of recommendations:

- Development of assessment processes to identify why patients should not be cared for in single rooms.
• A review of housekeeping and care assistant roles which would support the domestic management of single rooms.
• Requirement for adequate social areas and planned activities spaces to be built into care plans to encourage mobility out of single rooms and reduce loneliness.
• A requirement for good planning of storage space in single rooms and within ward areas.
• Good planning and investment in technology to support the care of patients in single rooms.
• Adequately designed and properly tested nurse staffing levels.
• More evidence-based UK research into the benefits and risks of single room accommodation.

The full text of the Nurse Staffing Report is contained at Annex 6

**Attitude Surveys**

**Golden Jubilee National Hospital Survey**

A survey of patients who had experienced a single room environment was undertaken in 2006 at the Golden Jubilee National Hospital. These were patients from across Scotland whose ages were in the 60 – 80 years range and who were undergoing surgery for primarily cardiac and orthopaedic conditions. 57 patients took part in the survey and analysis of their responses found that 81% had experience of both multi-bed and single room accommodation in hospitals. Furthermore, 93% of the patients expressed a preference to stay in single room accommodation for any future overnight stay in hospital.

Further detail on this survey is contained in the Nurse Staffing Report in Annex 6
Public Attitude Survey

One of the conclusions of the Peer Review Report was to highlight the need to understand the social and cultural attitudes of potential users of the Scottish healthcare system before any general conclusions could be made about an appropriate level of single room provision. The Steering Group recognised the lack of information about the needs and wants of the Scottish population in relation to this issue and therefore commissioned a public attitude survey of a representative sample of Scotland's population.

The specific research objectives were:

- To assess people’s preference to be accommodated in single versus multiple occupancy hospital accommodation.
- To explore people’s opinions on which groups should/should not be accommodated in single occupancy hospital accommodation.
- To examine the perceived benefits and risks associated with accommodating people in single or multiple occupancy accommodation.
- To examine the degree to which people are aware of the nature of hospital accommodation currently provided by NHS Scotland.

Between 23 and 28 November 2008, a representative sample of 990 adults aged 16 and over were interviewed in over 43 sampling points throughout Scotland. The views expressed in this report are the views of the research organisation and do not necessarily represent those of the Department or Scottish Ministers (now Health Directorate or Scottish Ministers).

The principal conclusions of the survey team were:

- The majority of respondents had some experience of hospitals in the last five years: either as in-patients (37%), visiting friends or relatives (76%), or in the course of their work (8%). In total, almost a quarter (24%) had personally stayed in a smaller multi bed ward (up to six people) as an in-patient, 13% in
a single room, and 7% in a large ward (7+ people). Regarding visiting in-patients: 50% had visited friends or relatives in a smaller multi-bed ward, 27% in a single room, and 17% in a larger multi-bed ward. Linked to this, the majority of the sample (60%) felt that the smaller multi-bed wards were most common, followed by larger multi-bed wards (32%) and single rooms (5%).

- If admitted as an in-patient, the most frequently preferred type of accommodation would be a single room (41%), followed by people saying that they didn’t mind (27%). Smaller multi-bed wards (22%) and larger multi-bed wards (3%) were considered less desirable. Looking at the sample based on their preferences, patterns of response by those who “don’t mind” and those who prefer smaller multi-bedded wards were similar throughout.

Figure 2: Type of accommodation preferred if admitted to hospital

Base: All respondents (990)

- Previous experience of types of hospital accommodation makes little difference to future preferences, although those who have stayed in or visited a smaller multi-bed ward were slightly more likely to prefer to stay in one, should they be an in-patient in the future. Preference for single room accommodation increased with social grade (30% of those in the DE group increasing to 58% of ABs). The younger age groups were also more likely to
prefer this type of accommodation (49% of those aged 16-34 falling to 28% of those aged 65 and over).

- The perceived advantages of staying in a single room were more privacy (75%) and that it would be less noisy (34%); both more likely to be cited by those who would prefer to stay in a single room. The major disadvantage given was that you would feel isolated or lack company (69%): in particular from those who would prefer to stay in a multi-bed ward. In conjunction with this, the major advantage of a multi-bed ward given was that people feel less isolated and have more company (78%), and the stated disadvantages were that people have less privacy (56%) and it is more noisy (48%). Those who preferred single rooms were more likely to see disadvantages of multi-bed rooms, and those who preferred multi-bed rooms were more likely to see disadvantages of single rooms.

- The main groups that the sample felt should stay in a single room were those who are seriously ill (57%), those who are dying (27%), and people who have an infectious disease (24%). Only 11% felt that everyone should stay in a single room. The main groups that the sample felt should stay in a multi-bed room were people who were in hospital for a routine procedure (27%) and everyone (26%).

- Despite the fact that the largest proportion of respondents would prefer to stay in single room accommodation, there was an acceptance that resources would not allow everybody to do so. There was little agreement overall about what sorts of groups should stay in single versus multiple accommodation, suggesting that people do not have very strong feelings on this topic. Although they did tend to feel that the judgement should be made based on severity of illness, this could reflect the pattern of allocation they have personally observed in the NHS today.

The full text of the Public Attitude Survey is contained at Annex 7.
Financial Impact

The financial impact of increasing the provision of single room accommodation can be split into two broad categories, namely capital and revenue costs.

Capital Costs

A study was undertaken for NHSScotland prior to the Peer Review Event to explore the additional capital and revenue costs which would be incurred by increasing the space around hospital beds. This study did not consider the impact of a higher provision of single rooms but the impact of increased bed spacing was deemed to be a reasonable proxy as far as the impact of capital costs is concerned, as these are directly attributable to the footprint of the building. It was recognised that the design of ward accommodation would have a significant effect on this and much activity is now taking place across the UK and Europe on different models of ward design incorporating single rooms with en-suite facilities. This paper does not consider these in detail but it is important to acknowledge that an increased focus on appropriate design can have a significant impact on the subsequent capital (and revenue) costs. The study based on increased bed spacing identified capital cost, increases which at a hospital level range from approximately 0.5% to 3% for large hospitals and approximately 1% to 5.5% for small hospitals.

The Group also benefited from a Northern Ireland study which supported the general conclusions of the Atkins Report. The Northern Ireland study found that the additional capital cost of increasing the ratio of single rooms from 50% provision (the then current policy position in Northern Ireland) to 100% would be between 2% and 4% dependent on the size of the hospital in terms of bed numbers. The higher percentage increase being for the larger hospital.

Although there is inevitably an increase in the capital cost of a hospital associated with an increased level of single room provision, it is important to bear in mind that the investment must be measured against the added health benefits which result. As noted by the European Health Property Network:
“lifecycle costing should involve an assessment of a building’s contribution to healthcare over its lifetime by balancing questions of short-term affordability with future needs for adaptability and longer-term functional effectiveness”.

Revenue Costs

The evidence from the Atkins Report which looked at the revenue cost of bed spacing recognised this relationship to be less directly relevant when considering the revenue cost impact from a higher level of single room provision. What was considered crucial was the additional floor area needed and the supply of the services contained in the additional en-suite facilities, which will need to be maintained and cleaned. It is likely, therefore that this report has understated the increase in revenue costs which can be anticipated from a higher level of single room provision. However it is recognised in all studies into additional revenue costs that as a minimum there will be an increase proportionate to the increased floor area in the ongoing cost of heat, light, power, cleaning, maintenance etc.

The Atkins Report, based on increased bed spacing, identified the increased revenue costs to be around 0.5% to 1.5%, but the Steering Group recognises that this assessment is likely to have understated the full impact from additional single room accommodation, in particular, on facilities management/capital charge costs.

As with capital costs the Group were able to draw on the outcomes of studies undertaken in Northern Ireland which suggested that the increased revenue costs associated with moving from a position of 50% provision of single rooms to 100% provision would be around 2% to 2.75%, dependent on the number of beds with the greater bed number increases reflecting larger hospitals.

Health Facilities Scotland considered the issues raised by increasing the provision of single rooms. This exercise involving HFS’s major stakeholders raised a significant number of issues, including:

- Individual room controls would add marginally to the cost but may mean better environmental conditions for the patient.
• Sanitary facilities will be more numerous increasing both installation and maintenance costs.
• With proper design the patient environment is likely to be enhanced with better natural light, views, lower ambient noise levels and some degree of individual control of room conditions.
• Potential increase of general utility costs as a result of increased maintenance lighting, ventilation and facilities.

The paper noted that any additional costs arising from areas of concern such as those detailed above can be viewed as marginal. This paper also looked at examples published by the Department of Health which identify the cost of additional space, cleaning and nursing could range from 0.5% to 1.5% of a typical revenue budget.

The overall view of Health Facilities Scotland was that in developing a new healthcare facility, the percentage of single rooms chosen could have less impact on construction and maintenance costs than other decisions routinely made in the design and planning process. The HFS Group also believed there were grounds for optimism in that individual control of environmental conditions would bring a significant improvement in patient satisfaction.

Having considered all relevant information (including the Atkins Report; the Northern Ireland Study; the examples produced by the Department Of Health; the assessment carried out by Health Facilities Scotland and the Nurse Staffing Report) the Group has concluded that the potential revenue impact from increased single room provision/bed spacing could be up to 2.5% of overall running costs. This assessment assumes that any clinical staffing implications will be off-set by savings from reductions in patient transfers, reduced ward closures and better use of patient accommodation.

For refurbishment options where accommodation has to be extended due to physical space constraints/maintain bed capacity, the Group recognised that the revenue implications are likely to be considerably higher than the overall average of 2.5% of
hospital running costs. The NHS Body concerned will need to determine the extent of the revenue implications as part of the business case justification on how best to address local needs. In reaching a decision in each particular project the dimensions of existing multi-bed areas will be significant as it may not be possible to conveniently alter the space to take additional en-suite facilities and provide the necessary space recommended around the bed. Where the number of beds for a given patient group cannot be accommodated within the physical space available and it is appropriate for that patient group to be accommodated in single rooms it may mean the use of additional space and this could have a significant financial impact.

The Group also recognised that other benefits may be realised. Experience from elsewhere in Europe, America and Canada tends to support the case that increased provision of single room accommodation will enable increased patient turnover as a result of improved bed utilisation, reduced length of stay and improved infection control. An enhanced level of single room could enable patient throughput to increase by a level greater than the increase in running costs thereby offering the possibility of improved overall hospital performance.

The full text of the Health Facilities Scotland paper is contained at Annex 8.
THE CURRENT POLICY POSITION IN ENGLAND, WALES AND NORTHERN IRELAND

In order to put this paper into context, the current policy position in each of the other UK healthcare system is as noted below.

England

The Department of Health in England has not yet finalised its policy position on the appropriate level of single room provision and relies on Health Building Note 4 which was issued to Trusts in England and Wales in 2006. This Health Building Note is titled *In-patient accommodation; options for choice*, and offers the choice options of providing single room accommodation at 50%, 75% (80% in certain work configurations) and 100% models. This Building Note describes the advantages and disadvantages of single rooms and allows Trusts to select options which best meet their local priorities.

Wales

The Welsh Assembly Government in 2007 introduced a policy that all new-build hospital projects would be designed on the basis of 100% single room provision. When the project is the refurbishment of a major healthcare facility the target is to provide 80% of the accommodation in single rooms with a minimum of 50% provision.

Northern Ireland

In March 2008, the Department of Health, Social Services and Public Safety introduced new standards regarding the provision of single bedrooms in acute and local hospitals. The new standards require all new build general ward accommodation to be planned on the basis of 100% single rooms (separate standards are applicable to specialities such as critical care and maternity). Where special local circumstances with regard to new build ward accommodation apply (for example due to clinical or operational issues which require the provision of some
element of multi-bed ward accommodation) Trusts should provide justification for and seek approval to the deviation from the provision of 100% single rooms.

With regard to major refurbishments, the new standards recognise that there may be instances where the physical limitations on an existing building would render the achievement of 100% single rooms impossible, or only possible at disproportionate cost. In these circumstances, Trusts are advised to maximise the number of single rooms which can be provided and to give reasons for any deviation from the provision of 100% provision.

**General Trends in Recent UK Projects**

The above policy positions give a relatively clear sense of the general direction of travel across the UK, which has been underpinned by a number of projects which are currently planned or underway where 100% single room provision is being planned. These include:

**Gwent Healthcare NHS Trust**

This Trust is currently developing 2 local General Hospitals in Caerphilly and Blaenau Gwent with 270 and 110 beds respectively. Both these facilities will be developed with 100% single rooms.

**Pembury Hospital**

Maidstone and Tunbridge Wells NHS Trust have commissioned the building of a 512-bed £300m hospital in Pembury which is the first hospital in England to comprise 100% single rooms. The new hospital will provide planned and emergency surgery; orthopaedics; a woman and children’s zone; day case theatres; outpatient services and a mental health unit. A significant emphasis has been placed on infection control with 100% of the rooms being single with en-suite facilities and clinical processes designed around the patient.
THE STEERING GROUP’S PERSPECTIVE

Having considered the various reports on the evidence supporting the provision of increased levels of single room provision within new-build hospital facilities and on the refurbishment of major hospital facilities in Scotland members acknowledged that there are a limited number of options. These options are detailed in the next section, but during discussions members also agreed that the question of the appropriate level of single room provision is a complex matter and that there could be different levels appropriate for different patient groups and that the whole design philosophy for each project must be considered in reaching a decision on single room provision. Equally the profile of those patients who would be treated in any new facility must be fully understood through appropriate engagement processes and there must be full engagement with clinicians.

It was agreed that the broad views of clinicians could be obtained by undertaking a Delphi Expert Consultation exercise. This approach involves identifying experts and obtaining their views, usually anonymously but in this instance it has been agreed that the views of the Chief Medical Officer’s clinical speciality advisers are obtained. Each adviser will initially be asked a single question, namely;

“Should all patients (in your clinical speciality area) be accommodated in single rooms?”

Once this initial round has been completed and the results have been collated and in a second questionnaire will ask these clinical speciality advisers to consider the full range of answers in the hope of gaining consensus among them on the likelihood and impact of higher levels of single room provision across patient groups as a whole. This exercise should be completed by the end of 2008 and will add considerably to the confidence parameters of the Group’s final recommendation.

The Group noted that there were major differences in the findings in the surveys between that undertaken of a general cross section of the Scottish public and the survey carried out on patients with first-hand experience of a staying in single room hospital accommodation. The difference is likely to reflect that those patients who
have stayed in single room accommodation have had a good experience of this type of accommodation in a modern, highly specified hospital built with specific patient groups in mind. The Group also recognised that these were likely to have been planned admissions and not emergencies. Those questioned as part of the public attitude survey who had been in hospital whether in single rooms or multi-bedded wards are likely to have experienced quite different hospital environments. This is likely to have resulted in their views being significantly different from the Golden Jubilee National Hospital Survey group.

The Group also agreed with the conclusion reached by the Department of Health, Social Services and Public Safety in Northern Ireland that when the refurbishment of a major healthcare facility is being considered there may be instances where the physical limitations of an existing building or part thereof renders the achievement of 100% single rooms impossible or only possible at disproportionate cost. Such circumstances, where the reduction in bed numbers imposed by the physical limitations of the existing building cannot accommodate the level of single room provision deemed necessary on clinical grounds, may have significant financial impacts and must be considered carefully in the planning for and justification of the preferred option.
OPTIONS FOR FUTURE HEALTHCARE PROJECTS

Having considered the various reports which have been provided and bearing in mind that the views of clinicians are currently being obtained; the Steering Group identified the following 3 options for new-build healthcare premises:

1. Status quo – as per Interim Statement.: That is, provision of an overall single occupancy room level of between 50% and 100% with the appropriate level within that range being a matter for each individual NHSScotland Board to consider based on the 4 broad criteria detailed in the statement.

2. (a) All in-patient accommodation will be provided in single rooms with any exceptions to be justified to and have the approval of Scottish Government Health Directorates.

(b) All in-patient accommodation for specifically identified patient groups must be provided in single rooms, with other patient groups to be accommodated in single rooms unless a lower percentage provision has been justified to and approved by Scottish Government Health Directorates.

The distinction between Options 2(a) and 2(b) above is essentially that in option 2(a) there is a default position of 100% provision of single rooms for all in-patient accommodation unless a case is specifically proposed and accepted by Scottish Government Health Directorates for a lower provision; whereas option 2(b) will require 100% single room provision for those patient groups/medical and surgical specialities where there is a general consensus among the Chief Medical Officer’s clinical speciality advisers. For these groups 100% provision will be mandatory whereas there will be flexibility to justify lower levels of provision for other patient group based on a risk assessment approach.

It must be appreciated that these options, 2(a) and 2(b), must reflect appropriate consideration of issues such as loneliness, lack of human contact etc. and demonstrate that such issues are appropriately ameliorated by the design of the in-patient accommodation.
As stated above, a Delphi Expert Consultation is now underway with the Chief Medical Officer's assistance to identify those patient groups or medical and surgical specialities where 100% provision is deemed essential, and those where a degree of discretion could be exercised by Health Boards when progressing individual projects.

For the refurbishment of major healthcare facilities, the same options as apply to new new-build facilities are deemed appropriate, although the Group supports the position that the cost of 100% provision must be weighed against the possibility that it could incur a disproportionate cost dependent on the physical limitations of the building under consideration. Also, when considering the refurbishment of part of a major healthcare facility Health Boards must fully consider the whole life profile of the building involved, including those parts not being refurbished at that time but which will require refurbishment at a future date in order that appropriate strategic decisions are made.
CONSIDERATIONS

The Steering Group are conscious that in taking a decision on an appropriate provision of single room accommodation, it is necessary to strike a balance between service quality and the opportunity cost in an environment which is influenced, not only by clinical and “building” interests but also by issues of patient safety and public expectation.

Given the significant capital investment programme which continues to be implemented, it is vital that all decisions made regarding future in-patient accommodation recognise that new facilities must be future-proofed and be able to accommodate the changing standards expected by patients; changing standards already evident in hospital care provision. The importance of these decisions is critical given that hospitals are designed and built with a lifecycle often greater than 50 years.

In summary, a recommendation to move to 100% single room for the majority of patient groups has the following clear advantages:

- It will support measures taken to reduce HAI through caring for the largest possible number of patients in single room accommodation.
- It will enable us to take full advantage of the opportunity to future-proof our estate at a time of continued significant capital investment.
- Implementation should require no significant additional staffing levels to deliver improved patient outcomes which we seek.
- It will entail marginal capital and revenue consequences which could be offset by opportunities for improved patient management, such as better bed management, less patient transfers and an opportunity for increased treatment at patient’s bedside.
- It will ensure better patient dignity/privacy.
- It will significantly reduce noise disturbance from staff activities or other patients, especially at night.
- It will facilitate appropriate family involvement in patient care.
Taken together, the benefits of providing single room accommodation as the norm within our hospitals presents an overwhelming case for change and the introduction of a policy which will support the move towards a higher level of single room provision.

Any policy which follows from the findings of this Report will impact only on new-build projects or where major healthcare facilities are being substantially refurbished. The policy will not have any immediate impact on the existing estate, but we would expect to see a progressive rise in percentages of single rooms across the entire NHSScotland estate and for this trend to accelerate as new projects are completed.
RECOMMENDATIONS

New-build Accommodation

The Steering Group recommends that for all new-build hospitals or other healthcare facilities which will provide in-patient accommodation, there is a presumption that all patients will be accommodated in single rooms, unless a lower percentage provision for specific patient groups has been justified to and approved by the Scottish Government Health Directorate as part of the business case approval process. Those patient groups for which 100% single room provision is mandatory will be agreed with the Chief Medical Officer.

Such single room provision should take into consideration the social needs of patients and ensure that patients are not socially isolated and lacking human contact. This should be addressed through sensitive design e.g. the provision of social space close to single rooms, social and emotional support mechanisms for patients during their stay and changes to visiting arrangements,

Refurbished Accommodation

For projects where the refurbishment of major healthcare facilities has been approved as the appropriate option to be developed the Steering Group recognises that it is extremely difficult for it to establish a definitive proposal as each of the buildings to be refurbished will present unique problems. However the Steering Group’s recommends that in developing proposals for substantially refurbishing healthcare facilities which include in-patient accommodation Health Boards must seek to provide the maximum number of single rooms consistent with the approach for new-build healthcare facilities. That is to say that the clinical needs of separate patients groups should be identified and catered for within what is technically practical and feasible in the context of the refurbishment proposal and the nature and range of clinical services provided by the facility being refurbished whether in part or as a whole.
The Steering Group also strongly recommends that in developing proposals for single room provision in refurbishment projects the overall level of single room provision within the refurbished accommodation must be 50% as an absolute minimum.

**Bed Spacing**

On bed spacing the Steering Group considers that the advice included in the Interim Statement remains appropriate, namely;

Having regard to ergonomic criteria, primarily the space required for patient handling and other activities which take place in the immediate vicinity of the bed it is recognised that the minimum bed space should not be less than 3.6 m x 3.7m.

N.B. This is the recommendation in Scottish Health Facilities Note 30: Version 2: Infection control in the built environment - *Design and Planning*, January 2005

These recommendations are endorsed by all members of the Single Room provision Steering Group.
NEXT STEPS

The recommendations in this report should now be considered by Scottish Government Health Directorate’s Chief Nursing Officer and if deemed appropriate by him and/or the Health Management Board a policy recommendation should be made to the Cabinet Secretary for Health and Wellbeing.

Assuming the Cabinet Secretary is supportive of the Steering Group’s recommendation on the level of single room provision, a Chief Executive’s Letter (CEL) will be issued and Health Facilities Scotland will be asked to review the current guidance on this issue and to make the appropriate changes. In parallel to this work should continue on the development of the Risk Matrix Tool to support the decision making process. This work will be overseen by the Steering Group along with the completion of the Delphi survey exercise of the CMO’s clinical speciality leads which will identify those specific patient groups for which 100% single room provision should be mandatory. Once completed there may be a need for a training programme to be developed to support its implementation.

It is fundamental to the successful implementation of any policy requirement to be developed on the level of single room provision that post occupancy evaluations of completed facilities which provide this enhanced level of provision are rigorously undertaken and that such evaluations consider in detail the outcomes in terms of staffing levels (clinical, nurse and other support staff), cost (both capital and revenue) and on patients attitudes. This will ensure that this issue can be kept under continual review as the evidence base develops and will support future policy development.
ANNEX 1: Peer Review Report
Single Room Provision within NHS Scotland

Peer review event, Beardmore Hotel, Clydebank
30 November – 1 December 2005
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1. Context and process

Context

Provision of single rooms and adequate space around beds in hospitals are generally considered important in achieving a number of aims of care and treatment, including:

- preventing and controlling healthcare associated infection (HAI)
- enhancing patients’ privacy, dignity and confidentiality
- promoting health and safety of healthcare workers, particularly in relation to use of equipment.

Scotland has reviewed a number of recently constructed or planned schemes in relation to single rooms and bed spacing in hospitals. The range of single room provision in hospitals in Scotland is 23-98%, with 23-52% in the acute sector.

NHS Estates in England originally commissioned the EU Health Property Network (EuHPN) to produce the report Hospital Ward Configuration: Determinants Influencing Single Room Provision, published in November 2004. The report detailed a number of recommendations, which are presented in Appendix 1.

The NHS in Scotland requires a policy statement on these issues. It was felt that much could be gained from considering the EuHPN report recommendations within the Scottish context and formulating responses specific to hospital ward design in Scotland that would inform a policy recommendation to the Minister.

Process

A group of experts from across Scotland were invited to a residential peer-review event on 30 November -1 December 2005. The event was sponsored and facilitated by the Scottish Executive and NHS Education for Scotland, and experts involved in the EuHPN report made presentations and participated in discussions. Appendix 2 lists those who attended.

The event had four clear aims, to:

- undertake a critical review of the EuHPN report in the Scottish context
- identify gaps in the work
- recommend additional work
- consider resource required to undertake the additional work.
The event was seen to take its place within a three-stage process, which consists of:

- a peer review event
- formulation of a policy recommendation to the Minister
- translation of policy into guidance for NHS Scotland, to be developed by the Property and Environment Forum (PEF) or successor body.
2. Peer-review outcomes

The peer review was structured to consider the impact of single room provision across four areas of concern – HAI, environmental issues, operational issues, and costs and value for money.

HAI

While the EuHPN report stated that the role of single rooms in preventing HAI had not been proven through randomised controlled trials (RCTs), it nevertheless expressed the view that single rooms play a significant part in preventing HAI and reducing incidence.

The peer-review event heard new evidence presented by Dr Margreet Vos of Erasmus University Medical Centre, Rotterdam. Dr Vos believed this evidence provided convincing support for the value of single rooms in relation to preventing HAI. She expressed particular concerns about the possibility of spread of infections in multi-bed rooms from patients who had not yet been identified as posing a risk of infection.

Participants arrived at the following conclusions.

- The combination of the EuHPN report, professional experience and Dr Vos’ new evidence strengthened confidence in the value of single rooms in preventing HAI. It was also felt that there was existing evidence in Scotland that could be collected and analysed to further clarify the picture.

- The complexity of the issue was recognised, particularly in relation to the unpredictability of patient needs in the future and the need to focus not only on inpatient hospital accommodation, but also on measures to identify and reduce HAI risk in accident and emergency and outpatient environments from which patients are admitted.

- There is strong evidence of the effectiveness of single rooms in minimising risks of HAI. This would lend support to a recommendation for 100% single rooms on the basis of HAI prevention in conjunction with other infection control measures, although factors such as staff implications, operational issues and patient choice also have to be taken into account.

Environment

Issues of patient dignity, privacy, culture, confidentiality, bed spacing, ergonomics and patient preference were discussed in this session.

It was acknowledged that there may be a reaction from patients currently sited in multi-bed rooms if the peer review recommended 100% single rooms.
These patients might feel they were more at risk simply through their situation within the ward, raising questions about a ‘two-tier’ service. Such issues would require careful consideration and management. It was felt that this was partly the reason behind the EuHPN report’s strong emphasis on the issue of a ‘confidence base’ for making judgements and advocacy of the use of systematic ways to assess risk in the absence of 100% single rooms in hospitals.

A number of environmental issues consequent to a 100% single room recommendation were raised. These included the need to consider door widths, corridor widths, access by beds, meal trolleys, hoists and other pieces of equipment, ventilation and cleaning rotas. Ward storage was also identified as a vital issue – without adequate storage space, items of equipment, appliances and linen tend to be left in corridors, posing health and safety hazards and hampering access.

Cultural issues were discussed, with a suggestion that patients in some areas of Scotland might value highly the social elements of being in hospital and would not want to be ‘isolated’ from fellow-patients in single rooms. It was pointed out, however, that many people who have inpatient experience of single rooms prefer the privacy offered and enjoy the freedom of family/carer visiting, which is not so readily available in open ward/bay environments. In addition, some people find the prospect of sharing sleeping and toilet accommodation either unpalatable or unacceptable. It was also emphasised that because a ward has 100% single rooms, it does not necessarily mean there will not be common areas where patients can meet and socialise.

Participants noted that that while the evidence to support single rooms in relation to HAI appears to be growing, there is less evidence on the implications of single rooms for patient choice and dignity. One participant questioned whether it was possible to make a recommendation to support 100% single rooms with no hard evidence of whether this is something patients in Scotland actually want. The majority, however, felt that people would opt for single room accommodation if given the choice – ‘all the evidence we need is in the design of people’s homes’, one participant said - and the lack of evidence, while regrettable, was not seen as detracting from the logic of a recommendation for 100% single rooms. Indeed, some ad hoc surveys have found that most patients prefer single room accommodation in hospital.

Participants arrived at the following conclusions.

- It is not going to be possible to generalise the needs of the whole population, and services will have to make value judgements about provision, backed up by patient-focused research (see below).

- The EuHPN report proposes a ‘risk matrix’ tool to help services identify a ‘confidence base’ for making judgements on single room provision, and the group expressed great interest in being informed about current
work on its development being taken forward in Europe. A tool such as this, it was felt, would be of great assistance to services.

- There is a need for research into what patients in Scotland need and want. For completeness, this work should include patients accessing services from NHS Scotland and the independent sector who have had experience of single room accommodation.

- Despite the lack of evidence, there was nevertheless a view that today’s adults, who in 20 years’ time will provide the majority of our hospital population, are growing up in home environments where there is much greater provision of personal space than was standard for previous generations. They will therefore expect their own personal space in hospital. The emphasis in Delivering for Health on promoting patients’ self care signals a need to make the structure of hospital environments resemble as closely as possible the structure of patients’ homes, which inevitably points towards single room provision.

**Operational issues**

Some concerns were expressed about the impact on staffing ratios and skill mixes that would follow on from provision of 100% single rooms, particularly in relation to nursing staff.

There were worries that providing care to patients in 30 single rooms rather than five six-bedded bays would require more staff, with some participants quoting nursing colleagues who had expressed such concerns. Members of the group with particular insight into nursing issues, however, emphasised that nursing establishments and staffing ratios were substantially based on patient dependency, not just on other factors. Doubts nevertheless lingered, but those in the group who had been involved in moving services from old multi-bed units to new single room environments commented that there was not necessarily a need for increased staffing (subject to dependency ratios).

There was wide discussion on the potential for new technologies such as tablet PCs to facilitate new ways of working. The role of mobile communications devices, computer keyboards, tablet PCs and other technologies in assisting the spread of pathogens through wards is an issue that has to be acknowledged and considered when creating a new environment for patient care.

Other participants presented the more positive impacts of single-rooms on operational issues. For instance, single rooms negated the problems of achieving an acceptable male-female mix in the ward, allowed isolation of patients who had infections, preserved the dignity of those who were dying and their families, allowed a method of transfer of patients within and between wards that lowers the risk of infection, and created total flexibility in patient accommodation on wards.
Participants arrived at the following conclusions.

- The issue of introducing staff to new ways of working when moving to single-room environments, and the resource implications of this, needs to be considered. There was a feeling among the group that there would be a big ‘selling job’ to convince nurses and domestic staff about the advantages. Training to support implementation would also be required.

- It was felt that appropriate calculation on workforce planning, including patient dependency, direct and indirect patient care and nurse activity, needs to be further developed to facilitate the move to single patient accommodation. Two-way communication systems between rooms and the nurses’ station/central reception, rather than the traditional ‘nurse call’ buzzer system, were also considered helpful in making better use of nursing time.

- 100% single rooms for patients can be achieved without 100% single room provision if, for instance, a ward’s occupancy rate runs at 80%.

**Cost and value for money**

The group agreed with the EuHPN report’s notion of moving from a cost-control ethos to a return-on-investment model. More evidence is required, however, to show that putting more money up-front leads to good clinical outcomes and good return on investment. The evidence and arguments to support this model are not currently sufficiently strong.

A political and economic case has to be made to show that increasing healthcare spending now will increase productivity in the economy by keeping people healthier and getting them back to work quicker following illness. Single room provision can contribute to this, the group felt, as the flexibility it offers and the fact that infected patients can be isolated without having to close down entire wards can theoretically lead to greater throughput of patients. Greater throughput will increase costs, but will also produce health and economic benefits to the nation. Reductions in HAI through single room provision would also reduce the length of hospital stay.

The group acknowledged the tensions between holding to optimal bed occupancy for prevention and control of infection (probably around 80%), waiting list pressures in the face of unoccupied beds, and higher costs of increased throughput brought about by a decrease in HAI.

Participants arrived at the following conclusion.

- The cost and value for money case for single rooms is currently hard to make as economic evaluations have not yet been done. While potential cost impacts remain theoretical, it will be difficult to convince audiences of the economic benefits of single room provision.
3. Conclusions of peer-review event

The peer-review group came to the following conclusions.

- The general principles of the EuHPN report were acceptable.
- Evidence to support 100% single rooms is convincing in relation to HAI, but is not as strong for other factors; experience and common sense support the provision of single rooms based on environmental considerations, but the implications for operational and cost and value for money factors are uncertain.
- It was felt generally that a range of room provision, governed by the nature of individual wards and units, would be appropriate. There was support for a default position of 100% single rooms with reduced provision possibly justified through use of the risk matrix tool currently under development (see above, page 6), but also acknowledgement of the operational difficulties this would pose. Others in the group felt a more pragmatic approach would be to agree a 50% single room default position, with the risk matrix tool used to justify greater provision.
- Judgements on the need for provision of single rooms need to reflect local needs; the risk matrix tool could be used to identify needs, and Scotland should remain closely connected to work currently being carried out by EuHPN in developing the tool.
- Specific evidence in a Scottish context needs to be sought across a range of issues, particularly patient choices and preferences regarding accommodation in hospital, impact of single rooms on staffing ratios and ways of working, and the economic implications of single rooms.
- Consideration should be given to setting up a small group to commission this work and keep contact with developments within EuHPN.
4. Next steps

1. The Scottish Executive will form a steering group to take forward the recommendations for gathering further evidence.
2. The Scottish Executive will formalise links with EuHPN and other UK Health Departments to develop the risk matrix tool and other related initiatives.
Appendix 1

EuHPN report recommendations

Although the report was commissioned as an observational study, the unanimity of view suggests it is appropriate to make a number of specific recommendations. They are:

1. Guidelines should promote a good practice range of between 50% and 100% single rooms – there is a strong ‘confidence’ base for this judgement.

2. Design decisions on HAI risk and other single room determinants should relate to the profile of the hospital and its local catchment population – not on the evidence of currently observed rates of infections or standards but on a predictive model that translates population need and infection risk into a service language that is useful for planning and design.

3. That a practical risk matrix scale be developed as an aid to profile analysis.

4. There should be support for hospitals in changing focus towards a cost effectiveness model of capital investment and design (in particular relating to judgements about HAI) and that advantage be taken of the expertise currently available within NHS Estates and its European alliance through the European Health Property Network.

5. The prospect of establishing a pan-European multi-centred study into the links between HAI and hospital design be vigorously pursued
Appendix 2

Single room provision within the NHS in Scotland
Peer review event, Beardmore Hotel, Clydebank
30 November – 1 December 2005

List of participants

Experts
Barrie Dowdeswell, Executive Director, EuHPN
Jonathan Erskine, Research Associate, EuHPN, and CCMD, University of Durham
Prof Bas Molenaar, Professor in Healthcare Design, Eindhoven University, and Architect, EGM Architects
Dr Margreet Vos, Medical Microbiologist, Erasmus University Medical Centre, Rotterdam

Peer reviewers
Mary Barr, Lead Infection Control Nurse, NHS Forth Valley (Acute Division) (representing Infection Control Nurses Association)
Shona Chaib, Director of Nursing, Golden Jubilee National Hospital (representing Directors of Nursing Group)
Imelda Hametz, Research Officer – Analytical Services Division, SEHD (representing Health ASD’s Economists, Statisticians and Researchers)
Andrew Hood, Project Director, NHS Ayrshire and Arran (representing Finance)
Claire Kilpatrick, Consultant Nurse, Health Protection Scotland (representing HPS)
Paul Kingsmore, Chief Executive, Property and Environment Forum (representing PEF)
Jim Leiper, Director of Operations, NHS Fife (representing Facilities Managers)
Terry Mackie, Client Advisor/Architect, NHS Grampian (representing Architects)
Heidi May, Nurse Director, NHS Highland (representing Directors of Nursing Group)
Dr Penelope Redding, Consultant Microbiologist, NHS Greater Glasgow (representing Scottish Microbiology Forum)
Alna Robb, Head of Practice Development, NHS Quality Improvement Scotland (representing Risk Managers)
Stuart Sanderson, Head of Facilities and Capital Finance, NHS Ayrshire and Arran (representing Finance)
Margaret Smith, Nurse Director, NHS Greater Glasgow

Observers
Mareike Bethge, SEHD
Dr Peter Christie, Senior Medical Officer, SEHD
Jim Currie, Secretary, Institute of Healthcare Management Scotland
Liz Gillies, Director of HAI Education Initiatives, NHS Education for Scotland
David Hastie, Head of Property and Capital Planning Division, SEHD
Alex Mathieson, Freelance Writer and Editor
Margaret Tannahill, Project Leader, HAI Taskforce, SEHD
Malcolm Thomas, Healthcare Engineer
ANNEX 2: Membership of Steering Group
SINGLE ROOM PROVISION STEERING GROUP

HASTIE David, Deputy Director of Property and Capital Planning Division, SGHD (Chair)

CHAIB Shona, Director of Nursing, Golden Jubilee National Hospital (representing Directors of Nursing Group)

CHRISTIE Dr Peter, Senior Medical Officer, SGHD

HAMETZ, Imelda, Research Officer – Analytical Services Division, SGHD (representing Health Economists)

KINGSMORE Paul, Director, Health Facilities Scotland (representing HFS)

KINNEAR Norman, PPP Facilitator, Property and Capital Planning Division, SGHD

LEIPER Jim, Director of Operations, NHS Fife (representing Facilities Managers)

MAY Heidi, Nurse Director, NHS Highland (representing Directors of Nursing Group)

McINTYRE Jackie, Senior Nurse, Inspection Control (representing Health Protection Scotland along with Claire Kilpatrick)

REDDING Dr Penelope, Consultant Microbiologist, NHS Greater Glasgow (representing Scottish Microbiology Forum)

SANDERSON Stuart, Head of Facilities and Capital Finance, NHS Ayrshire and Arran (representing Finance)

TANNAHILL Margaret, Project Leader, HAI Taskforce, SGHD (until December 2008)
ANNEX 3: Interim Statement
INTERIM GUIDANCE FOR NHSSCOTLAND
PROVISION OF SINGLE ROOM ACCOMMODATION

Current guidance on the design of in-patient accommodation recognises the principle of devolved clinical case management to the patient bedside with services and supplies located as closely as possible. In an attempt to balance the potential conflicting demands for a clinically suitable, people-centred environment with the efficient use of staff and financial resources the extant guidance¹ provides choices enabling beds to be provided in an arrangement of 50%, 75% or 100% single occupancy rooms.

There is also a wider current debate on the determinants influencing such design decisions as healthcare systems are faced with new challenges such as rising public expectations, increased professional competencies widening the portal for care and treatment and to assist in controlling the incidence of healthcare associated infection.

Recognising that there is a lack of clear direction on this issue a Steering Group has been established to take forward the recommendations from a Peer Review of a report prepared for the Department of Health by the European Health Property Network entitled “Hospital Ward Configuration – Determinants Influencing Single Room Provision” (hyperlink to report to be inserted).

Perhaps the most significant conclusion of the Peer Review Group, in the context of this interim statement, was the acceptance of the general principles and conclusions contained in the EuHPN Report. This interim statement therefore reflects that Report’s broad conclusions.

Membership of the Steering Group has been drawn from experts within NHSScotland and the Health Department and as this work will take some months to complete the Steering Group feel it essential that SEHD provide an interim statement which outlines the latest thinking on this issue for those in NHSScotland developing projects.

In making any decision on the appropriate level of single room provision you should be fully aware of the changing perceptions described above including the recommendations contained in the EuHPN Report. In planning for the construction or major refurbishment of healthcare facilities it is appropriate to provide an overall single occupancy room level of between 50% and 100%. The appropriate level within that range is a matter for each individual NHSScotland Board to consider based on the following broad criteria.

- **Science-based** decisions relating to the clinical and nursing care of patients and overall hygiene standards;
- **Value-based** judgements about the nature of personal services and responsiveness to the local community and generational cultures;
- **Operational needs**, for example managing volatility in demand or changing clinical needs and priorities; and
- The need to balance these against **economic considerations**.

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The above criteria clearly establish the need to make decisions on sound clinical judgements and the profile of the hospital and its local catchment population in developing a predictive model which will translate population need and risks such as infection into service requirement. It is important when considering the percentage provision of single rooms that full regard is taken of the conditions which will be treated, the models of care for the delivery of treatment and the changing aspirations of patients over future years, rather than basing decisions on past trends and social patterns – particularly around the acceptability of communal facilities.

The related issue of bed spacing will also be covered by the Review Group in its final report. Current guidance recommends that “where not in a single-bed room each bedspace should not be less than 3.0m x 2.7m”. Having regard to ergonomic criteria, primarily the space required for patient handling and other activities which take place in the immediate vicinity of the bed it is recognised that the minimum bedspace should not be less than 3.6 m x 3.7m.

Accordingly when planning any new in-patient accommodation or any major refurbishments of existing accommodation it is recommended that the increased bedspace is adopted.

I hope that the information provided in this statement gives a degree of clarity on where we are at present and will enable those involved in developing projects to make decisions regarding new or refurbished major facilities against a sound evidence based background.

If you have any specific questions which arise from this interim statement you should address these in the first instance to David Hastie, at the Scottish Executive Health Department’s Property and Capital Planning Division on 0131 244 2079 or via email to david.hastie@scotland.gsi.gov.uk.

DAVID HASTIE
15 december 2006

Notes

¹ Scottish Health Planning Note 04 – In-patient accommodation: Options for choice, May 2000

² Scottish Health Planning Note 04 – In-patient accommodation: Options for choice, May 2000; and

Scottish Health Facilities Note 30 – Infection Control in the Built Environment – Design and Planning, January 2005

The above publications are available for download at the Health Facilities Scotland website:
http://www.hfs.scot.nhs.uk
ANNEX 4: Current Number of Single Rooms in Scottish Hospitals
### Current Provision of single rooms in Scottish hospitals

<table>
<thead>
<tr>
<th>NHS Board</th>
<th>Other</th>
<th>With en suite toilet and wash hand basin</th>
<th>With en suite toilet, wash hand basin and shower</th>
<th>Without en suite</th>
<th>Total</th>
<th>Average Number of Hospital Beds ISD(S)1 (Note 1)</th>
<th>% Single rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>406</td>
<td>1615</td>
<td>3658</td>
<td>1537</td>
<td>7216</td>
<td>27,144</td>
<td>27%</td>
</tr>
<tr>
<td>Ayrshire &amp; Arran</td>
<td>23</td>
<td>33</td>
<td>411</td>
<td>164</td>
<td>631</td>
<td>1,944</td>
<td>32%</td>
</tr>
<tr>
<td>Borders</td>
<td>9</td>
<td>90</td>
<td>103</td>
<td>38</td>
<td>240</td>
<td>634</td>
<td>38%</td>
</tr>
<tr>
<td>Dumfries &amp; Galloway</td>
<td>0</td>
<td>35</td>
<td>89</td>
<td>123</td>
<td>247</td>
<td>764</td>
<td>32%</td>
</tr>
<tr>
<td>Fife</td>
<td>23</td>
<td>127</td>
<td>96</td>
<td>49</td>
<td>295</td>
<td>1,613</td>
<td>18%</td>
</tr>
<tr>
<td>Forth Valley</td>
<td>74</td>
<td>125</td>
<td>111</td>
<td>88</td>
<td>398</td>
<td>1,232</td>
<td>32%</td>
</tr>
<tr>
<td>Grampian</td>
<td>24</td>
<td>307</td>
<td>270</td>
<td>119</td>
<td>720</td>
<td>2,813</td>
<td>32%</td>
</tr>
<tr>
<td>Greater Glasgow and Clyde</td>
<td>102</td>
<td>349</td>
<td>805</td>
<td>358</td>
<td>1614</td>
<td>7,281</td>
<td>22%</td>
</tr>
<tr>
<td>Highland</td>
<td>29</td>
<td>40</td>
<td>339</td>
<td>122</td>
<td>530</td>
<td>1,750</td>
<td>30%</td>
</tr>
<tr>
<td>Lanarkshire</td>
<td>23</td>
<td>63</td>
<td>441</td>
<td>52</td>
<td>579</td>
<td>2,362</td>
<td>25%</td>
</tr>
<tr>
<td>Lothian</td>
<td>22</td>
<td>141</td>
<td>625</td>
<td>159</td>
<td>947</td>
<td>3,977</td>
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<tr>
<td>Orkney</td>
<td>0</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>16</td>
<td>64</td>
<td>25%</td>
</tr>
<tr>
<td>Shetland</td>
<td>16</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>26</td>
<td>100</td>
<td>26%</td>
</tr>
<tr>
<td>Tayside</td>
<td>59</td>
<td>169</td>
<td>201</td>
<td>134</td>
<td>563</td>
<td>2,273</td>
<td>25%</td>
</tr>
<tr>
<td>Western Isles</td>
<td>2</td>
<td>23</td>
<td>29</td>
<td>1</td>
<td>55</td>
<td>220</td>
<td>25%</td>
</tr>
<tr>
<td>Golden Jubilee National Hospital</td>
<td>0</td>
<td>8</td>
<td>108</td>
<td>0</td>
<td>116</td>
<td>116</td>
<td>100%</td>
</tr>
<tr>
<td>State Hospital</td>
<td>0</td>
<td>105</td>
<td>4</td>
<td>130</td>
<td>239</td>
<td>Note 2</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. The Average Number of Hospital Beds is the average daily number of staffed beds from the ISD(S)1 return for the six months ending September 2006 and this figure has been used as the denominator in the calculation of the "% Single rooms". Since the number of staffed beds can be reduced by ward closures due to e.g. painting and decorating, weekend closures etc. this percentage is likely to be overstated by a few points across all NHS Boards.

2. The State Hospital at Carstairs has been excluded from the calculation.

Source: Single Room Census conducted by ISD for the Scottish Executive November/December 2006.
ANNEX 5: Literature Review
SINGLE SIDE ROOM

LITERATURE REVIEW

Annette Rankin       Laura Kean
Introduction

In November 2004 the European Health Property Network produced a report for NHS Estates entitled “Hospital Ward Configuration – Determinants Influencing Single Room Provision”. The aim of this report was to review European perspectives on the factors influencing design decisions on the level of single room provision as an aid to decision-making on setting relevant guidelines within the NHS in England.

The publication of this report gave rise to widespread discussion on the appropriate level of single room provision in, primarily, new healthcare facilities and in order to consider how NHSScotland/Scottish Executive Health Department should address this issue a Peer Review Event was held on 1 December 2005. The Peer Review event was structured to consider 4 broad topic areas and how these influenced decision-making on the level of provision of single rooms. These topic areas were:

- HAI
- Environmental Issues
- Operational Issues
- Cost/Value for Money

Representatives from a variety of different professional backgrounds drawn from across NHSScotland/SEHD had the opportunity to discuss and challenge the authors of the European Health Property Network (EuHPN) Report and to discuss the factors which influence any decision on the appropriate level of single room provision. One of the conclusions from the Peer Review Group meeting was that consideration should be given to establishing a small Steering Group to identify what further work was required to place the EuHPN report conclusions into a Scottish context. It was also recommended that the Steering Group keep contact with developments within EuHPN.
This document is a literature review considering the relevance of the European Health Property Network report ‘Hospital Ward Configuration, Determinants Influencing Single Room Provision’ for NHS Scotland (Dowdeswell et al 2004) and examines additional evidence indicating the most effective configuration of single side rooms under the previously agreed four headings:

- Healthcare Associated Infections
- Environment
- Operational issues
- Cost effectiveness

This review follows on from a desktop review carried out by the European Health Property Network, which set out to provide evidence that would aid new build design decisions on single room provision.

Methods

A literature search was conducted within the Scottish Executive library. In addition Cochrane Library, Ovid database, Medline, HAI portal and Google were searched using the following keywords:

- Single rooms
- Isolation
- Isolation rooms
- Infection control
- Noisy environment
- Healthcare associated infections
- MRSA
- Barrier nursing
- Privacy
- Dignity
- Confidentiality
• Side rooms
• Bed bays
• Multi rooms
• Isolate
• Nosocomial
• Noise levels

The above key words were used in a variety of combinations. However, in an attempt to narrow the search when key words relating to an organism such as MRSA was used it was always combined with another relevant key word such as isolation. There was no time limit on the search and most recent articles were always requested first.

The evidence found via these literature searches were examined for any relevant information. Evidence was also identified from unpublished areas through discussions with the key people who were involved with the research of the yet unpublished work. This was particularly relevant with regards to the Norovirus Isolation research that was taking place in a South Glasgow Hospital. The authors met with key members of the project team to discuss their findings.

Results

A wide variety of literature was reviewed and the search was not narrowed to a particular field or study type. The literature reviewed included case studies, large multi centre studies and also building guidance. The majority of the literature found was based in America with some studies identified from the United Kingdom. There is very little published work on single side room provision in Scotland. It is worthy of note that Dowdeswell et al (2004) recognises that there is an absence of good science in the single room research evidence and this literature review supports this finding.
A literature review performed by Ulrich in 2004 has concluded that single side room accommodation should be provided in almost all situations. This recommendation is based around the evidence which highlights that single rooms have been shown to reduce the incidence of HAI, reduce room transfers and subsequent related medical errors, lessen noise, improve patient privacy and overall satisfaction with health care (Ulrich et al 2004).

To enable more robust scientific data into the determinants and ratio of single room provision a multi centre national research programme should be undertaken looking at the 4 key areas as highlighted in this paper

**Healthcare Associated Infections (HAI)**

The purpose of this section was to identify whether there was any evidence supporting the need for single rooms in the prevention of healthcare associated infection.

Private rooms have become the standard in the United States with health care planners arguing that single rooms reduce not only the incidence of HAI but also allow for the delivery of efficient nursing care whilst allowing dignity and privacy for the patient and their family (Chaudry et al 2005).

Infection control is one of the major factors relating to patient care issues particularly related to single side rooms. Dowdeswell et al (2004) makes broad conclusions which include:

- Rates of cross infection are reduced when patients are placed in single side rooms.
- Single rooms can be effective in improving standards of hand hygiene and also allow for more efficient cleaning and decontamination programmes.
- The treatment of patients with HAI is more effective when patients are nursed in single rooms.
This is supported by Ulrich et al (2004) and also Lawson & Phiri (2004) who report that the evidence indicates that infection rates are usually lower if patients are nursed in single side rooms as single rooms make a useful contribution to the main dimensions of the HAI problem.

Dowdeswell et al (2004) reports that there is a large body of evidence which supports the consensus that single room accommodation is effective in preventing HAI with very few studies which contradict this belief. This literature review supports this finding with the largest body of evidence supporting the use of single rooms for isolation purposes. The primary aim of infection control is the prevention of spread of infection between patients, staff and the environment with isolation being one of the common precautions applied to either prevent onward transmission or to protect the patient in isolation (Garner 1996).

Nursing patients in single rooms not only provides a physical barrier to help prevent the transfer of micro organisms, it also provides a visible reminder that the patient is being nursed in isolation and additional transmission based precautions may be required. In addition multi bed rooms are more difficult to thoroughly decontaminate on a patients discharge compared with single rooms (Boyce et al 1997).

The type of single side room that is required for isolation purposes is dependent on the organism. Single rooms comprise of different elements ranging from single rooms, en suite single rooms and ventilated single rooms with ante rooms. The purpose of isolation rooms is to:

1. Separate patients who pose a risk of infection to other patients.
2. Provide an environment which allows the reduction in the concentration of airborne particles.
3. Protect immunocompromised patients by means of protective isolation with mechanical ventilation.
The types of isolation rooms are outlined in appendix one:

There is a clear pattern wherein infection rates are lower when patients are in single bed rooms as opposed to multi bed rooms (Ulrich et al 2004). Passweg et al (1998) found that a combined approach of single room isolation with hepa filtration reduced the incidence of infection and subsequent mortality in patients who had undergone bone marrow transplantation.

An outbreak of SARS in Asia and Canada highlighted the shortcomings of multi bedded rooms in the control and prevention of infection with approximately 75% of cases of SARS in Toronto occurring as a result of hospital exposure. Hospitals in Toronto at this time were forced to rapidly construct wall barriers to create single rooms in an attempt to control the spread of SARS (Farquharson & Baguley 2003).

The Department of Health recognised in 2003 that whilst many patients with an infection require physical separation from others by means of isolation, this is often not achieved as a result of a shortage of isolation facilities. The chief medical officer directed that, through time, NHS chief executives would ensure appropriate provision of isolation facilities within their healthcare establishments (HBN 4 2005). However this document fails to set a target for the ratio or percentage of single side rooms required. Wigglesworth & Wilcox (2006) reported a 22% failure to isolate over a 12 month study period and found that the number of single side rooms available were often dependent on the specialty. The British Paediatric Association have recommended that at least 50% of paediatric beds provided are in single rooms, arguing that this will facilitate better infection control (Madeley 1995).

Recently, failure to isolate was one of the significant causes cited in the management report into the Clostridium difficile in Stoke Mandeville, with this hospital having an inadequate number of isolation rooms available and also priority for these rooms being given to patients for other reasons such as waiting list initiatives (Healthcare Commission 2006).
Whilst a repeat prevalence study is currently underway in Scotland, which may give a clearer indication of the extent of the HAI problem and therefore the facilities required, the last reported national study in 1993 found that 9% of patients acquire an HAI. A single site survey carried out in 1999 to establish the socioeconomic burden of HAI highlighted an overall HAI rate of 7.8% with each HAI costing an average of £3154 to treat and an overall cost of £930.62 million per annum to the hospital sector (Plowman et al 1999).

A recent unpublished study in a Scottish acute hospital has demonstrated the use of single side rooms for patients with viral gastro enteritis significantly reduces the number of outbreaks and ward closures due to norovirus. The economics of this study are currently being evaluated (Carmen W et al 2006).

**Environment**

The purpose of this section was to identify whether there was any environmental factors which influenced single room provision.

Throughout the years patients expectations from the NHS have increased. A hospital with a high percentage of single side rooms is often viewed by patients as an indicator of the quality of the hospital (Dowdeswell at al 2004). There are a number of environmental factors affecting patients and their care which can be altered by the provision of single room accommodation.

The consensus of evidence suggests that single rooms are quieter than multi bed rooms or bays and also encourage a quicker recovery and a higher self esteem (Dowdeswell et al 2004, Ulrich et al 2004, Lawson & Phiri 2004). Many studies highlight that tolerance of noise is low during illness and noise control is important in the recovery of the patient. Noise level is lower in a single occupancy room with patients having the ability to control light and noise (Chaudry et al 2005, White 2006, Ulrich 2003). Excessive noise has been shown to have an adverse effect on the development of the preterm infant (Graven 1997). A study of multi bed rooms in a children’s hospitals in 1994 found that noise levels were so high that consideration should be given...
to the abolition of multi bed bays in children’s care facilities (Couper et al 1994).

A study by Barlas et al in 2001 found that patients in multi bedded rooms with curtained spaces withheld some important medical details and refused some aspects of their physical examination as a result of lack of privacy. They also found that patients in single walled rooms never withheld any medical history or information.

Lawson & Phiri 2004 outlined that provision of 50% single side rooms allowed only limited patient control of the environment with regard to lighting and noise. Lack of privacy and dignity affects patients well being. This study reports that 85% single side room provision allowed for an enhanced patient control of the environment with a limited patient focus however this was better than 50% single room provision. Provision of 100% single room accommodation allows for optimal patient focus and greatly enhances patient control of the environment, allowing them to have a control over certain noise levels, temperature control etc. In addition single side room facilities enhance patient privacy and dignity allowing healthcare worker/patient conversations to take place in private and also the delivery of direct patient care to take place in the privacy of the patients own room which in turn fosters a higher level of patient well-being and patient and staff satisfaction.

However, Stelfox et al (2003) highlighted in their study, that patients who had been in isolation were twice as likely as non isolated patients to suffer an adverse event such as a fall during the period of isolation. In addition it was more common for these patients to have had incomplete recordings of their vital signs. This study also highlighted that isolated patients had an increased length of stay and they were more likely to be dissatisfied with their care than non isolated patients.

Isolation nursing takes place to prevent the transmission of infection either from or to the patient. Isolation for these purposes is normally termed wither source isolation or protective isolation. This usually occurs in a single side
room setting; however this can also occur in a cohort/multi patient setting. Where isolation is referred to in this review, this is limited to patients in isolation who are nursed in a single side room.

A survey performed by the Healthcare Commission assessing the variations in the experiences of patients in England questioned patients on a variety of aspects relating to their experience including environmental cleanliness and whether they were bothered by noise from hospital staff at night. However this survey does not examine the patients experience related to single side rooms or isolation facilities (Healthcare Commission 2005). However a small study carried out following Government recommendations around single rooms in rehabilitation wards showed that more than 80% of patients questioned preferred multi rooms rather than single side rooms (Sharma & Monaghan 2003).

The Department of Health carried out a survey of inpatients in 2001/2002. This study highlighted that 75% of respondents had not shared a room with a member of the opposite sex during their stay, 69% felt they were given enough privacy, 37% were disturbed by noise from other patients, 15% were disturbed by noise from staff. Only 16% of the respondents had been nursed in a single room with 67% being nursed in a bay ward shared with 2-6 patients (DOH 2002).

Chaudry et al (2005) recommends additional studies are required to examine the relationship between isolation and patient satisfaction. Unpublished work from a PhD dissertation by Brown 2004 suggested that patients experience distinct phases during their time in isolation which include:

- Anger
- Loss of Control
- Hopelessness
- Trying to adapt
This unpublished piece of work which was carried out in a Scottish Acute NHS hospital, recommended that further research is required into the effects on patients who are placed in isolation, including psychological effects (Brown 2004).

A literature review which was performed by Woogara (2004) highlights that all UK citizens have legal, ethical and human rights when they are nursed in a healthcare setting, emphasising the importance of healthcare practitioners respecting a patient’s dignity and privacy. However the author recognises that research on patient privacy is limited and the majority of research available was performed out with the UK. Single bed accommodation is often seen as preferable by patients to multi bed accommodation, with patients citing quietness and having their “own space” as one of the many benefits of single room accommodation (Ritchie et al 2006). Personal space and privacy of the patient was often compromised when they were nursed in bed bays (Woogara 2004).

**Operational Issues**

The purpose of this section was to identify whether there was any operational issues which influenced single room provision.

The rationale for the placement of patients in single room accommodation is not a new concept. Since the early 1960s studies have demonstrated the increased patient satisfaction associated with single bed accommodation (Williams et al 1969, Ayliffe et al 1971).

Bed occupancy in single side rooms are often higher as use of the room and the bed available is not dependent on the sex of the patient therefore increasing bed flexibility and occupancy. In addition, patients nursed in single side rooms have a shorter stay and recover quicker reducing inpatient costs (Bobrow and Thomas 2000). The use of single side rooms often reduces the number of inter-hospital or inter-ward transfers which take place which in turn will also affect costs as this will reduce the need for some paperwork and
housekeeping activities (Bobrow and Thomas 2000). In addition it is thought that, whilst there may be an increase in nurse staffing costs associated with a higher ratio of single rooms, this is likely to be off-set by savings associated with reduced patient movement, ward closures and better utilisation of accommodation.

Dowdeswell et al (2004) describes the operational issues around single rooms as including:

- Flexibility
- Infection Control
- Clinical workload

A brief scoping study carried out by Sheffield University into the benefits of single rooms outlines the comparison of 50%, 85% and 100% single room provision. In summary this paper highlights:

- 50% single room provision: limited flexibility particularly during high occupancy periods. There is also a higher likelihood of patient movement, increasing the risk of medical/medication errors.
- 85% single room provision: Enhanced bed capacity and flexibility. Empty beds due to gender mix remain a likelihood.
- 100% single room provision: Optimum flexibility with ability to provide 100% occupancy. No bed blocking or unsuitability due to gender (Lawson & Phiri 2004).

Cost effectiveness

Another important consideration in the configuration of single rooms is cost. The purpose of this section was to identify whether there was any cost issues which influenced single room provision and also whether the provision of single side rooms in a hospital setting is cost effective.
A study performed in 2001 by Drake concluded that efficient hospital designs can lower overall operating costs, however Chaudry et al (2005) has highlighted the lack of evidence regarding the related financial costs of single rooms and how this affects hospital expenditure. Walker 2002 highlights some of the areas that contribute to the overall cost of blocked beds and extended stay due to HAI. However if the evidence which supports the use of single side rooms is to be applied there will be overall cost reduction in terms of financial savings made not only by reducing individual cases of HAI but also in terms of reduction of ward closures due to outbreaks and lost bed days, less blocked beds, inter ward transfers and reduced flexibility and occupancy due to gender.

It has been shown by Health Building Note 4 that 100% single rooms can be accommodated within the same areas as that of 50% single rooms and 50% four bedded bays (HBN 2005). In the UK there have been a number of newly built hospitals which have a higher ratio of single side rooms. It may be helpful to evaluate costs by investigating whether patient transfers were reduced, bed occupancy increased and whether patient stays decreased at these hospitals as a result of having an increased ratio of single side rooms. Any current evidence cited for these arguments are based on studies in the United States and took place over four years ago.

**Conclusion**

During this literature review the authors have found that whilst there is a wide variety of evidence that supports the need for the provision of single side rooms there is very little evidence which directly identifies the ratio of single side rooms per hospital ward.

The literature review performed by Dowdeswell et al (2004) is a comprehensive review of the available literature and also recognises that there is insufficient available evidence to determine a scientifically based estimate of the optimum ratio for single side room provision.
The literature review performed by Ulrich in 2004 which concluded that single side room accommodation should be provided in almost all situations based their recommendations around the evidence which highlights that single rooms have been shown to reduce the incidence of HAI, reduce room transfers and subsequent related medical errors, lessen noise, improve patient privacy and overall satisfaction with health care.

This literature review also highlighted some gaps in studies and previous literature reviews particularly in the literature review performed by Dowdeswell et al (2004) which provides no definition for single rooms and this is consistent with many articles relating to single side room accommodation. This is an important factor as it would appear that patients’ experiences might differ depending of the style and facilities of the single room. In addition single side room facilities for the prevention or control of infection may vary depending on the infection and route of transmission.

Many of the references cited by Dowdeswell et al (2004) within the Healthcare Associated Infection (HAI) section of the document relates to the isolation of micro-organisms from the healthcare environment. However there is no evidence provided which supports the use of single rooms in the prevention and control of these micro-organisms. Once again, it is acknowledged that there is a lack of robust evidence available.

While the most comprehensive study to date, performed by Lawson and Phiri (2004), examines the benefits of 50%, 85% and 100% single room provision, it strongly recommends that further work is undertaken into this area with particular emphasis on the types of single room accommodation required and the identification of priority areas where single rooms must be provided such as Intensive care units and orthopaedic wards.

There is much evidence surrounding the benefits of single room accommodation, particularly from an infection control perspective, but the majority of this evidence is not robust or scientific and it is clear there is a lack
of evidence around the actual ratio of single rooms per ward/hospital that are required.

A report from Quality Improvement Scotland (QIS) has highlighted a model suggesting that three single side rooms are required per 25-bedded wards to control MRSA in the hospital setting (Ritchie et al 2006). This does not recognise the single room requirement for patients with any other pathogenic organisms or need for single room accommodation for other reasons such as terminal care.

Single room accommodation should be dispersed throughout a hospital according to risk and need. High risk areas such as intensive care units, high dependency units and oncology wards require a high level of single room accommodation. In areas such as psychiatric units or elderly care a lower ratio of single rooms may be acceptable due to the increased length of stay and the social requirements of this type of patient population.

There is also an increased public expectation of our healthcare facilities with many patients expressing a preference for single room accommodation. Further research is required which will examine the exact ratio of single room accommodation that is required. This should be based on need, including infection control needs, patient preference and also cost.
APPENDIX ONE

Isolation room types

Standard room (En suite single side room)

A room with space for one patient which normally contains as a minimum a bed, locker, clinical wash hand basin and also a sanitary facility comprising toilet, shower and wash hand basin.

Mechanically ventilated single room (Isolation room)

Room as above which also has either positive or negative pressure ventilation. These rooms will also have an anteroom. An Anteroom is an enclosed ventilated room adjacent to the isolation room and its purpose is to: provide a barrier against the exit/entry of contaminated air in/out of the isolation room, and also to provide a controlled environment for the donning or removal of PPE and hand decontamination.
Classification of isolation room:

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Aim</th>
<th>When required (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balanced air pressure difference between the room and the adjacent corridor</td>
<td>Prevent contact or droplet transmission</td>
<td>MRSA, VRE</td>
</tr>
<tr>
<td>Lower air pressure in the room than in the adjacent corridor</td>
<td>Prevent airborne transmission from patient in isolation</td>
<td>Pulmonary TB, Chicken pox, Influenza</td>
</tr>
<tr>
<td>Greater air pressure in the room than in the adjacent corridor</td>
<td>Prevent transmission from outside environment to immunocompromised patients</td>
<td>Neutropenic patients, to prevent aspergillosis in bone marrow transplant recipients.</td>
</tr>
</tbody>
</table>

Switchable ventilation from source to protective isolation is not recommended because of the inherent difficulty to provide failsafe mechanisms and also ensure no risk of user error. The results of patients placed in incorrect pressure rooms may be catastrophic for the patient or others in the area.

In rare circumstances there may be a situation where it would be advantageous to have a room equipped to provide simultaneous source and protective isolation e.g. a post bone marrow transplant recipient with
chickenpox. It is very unlikely that these types of facilities will be required on a routine basis and therefore may not be cost effective to have.

The majority of single side rooms required will be standard isolation rooms. In the Infectious Diseases Unit all isolation rooms must be source isolation rooms (as outlined above). A higher number of source isolation rooms may also be required in other wards such as respiratory, with oncology and haematology requiring protective isolation rooms.
References


ANNEX 6: Nurse Staffing Report
Single Room Provision in Scotland
Nursing Report
March 2008

Shona Chaib
Nurse Director – NHS National Waiting Times Centre Board
In a single room environment there is greater opportunity for carers/ family members to be involved in care delivery and some rooms could be made large enough to accommodate an extra bed for the carer. 

Open visiting or flexible/longer visiting times allows carers/visitors opportunities to visit at times that can be suitable to them that fit in with patient care and avoids the crowding of visitors traditionally seen in afternoons and evenings. 

Housekeeping and catering issues 

Across the United Kingdom 

Scottish Initiatives 

Conclusions
Introduction

A group of experts from across Scotland were invited to a residential peer-review event on 30 November – 1 December 2005. The event was sponsored and facilitated by the Scottish Executive Health Department and NHS Education for Scotland.

The peer review was structured to consider the impact of single room provision across four areas of concern – HAI, environmental issues, operational issues, and costs and value for money.

The use of a building impacts on not only infection prevention and control but has also been linked to patient dignity, confidentiality, reduction of errors, positive patient outcomes, staff satisfaction and patient satisfaction.

Representation

Nursing representation was invited and an executive nurse director joined the peer group to represent the nursing opinion from across Scotland.

Methodology

A variety of methods were used to gather data. These included:

1. A survey of nurse experience
2. A survey of patient experience
3. One to one interviews
4. Planned discussion at Nurse Director meeting.

Survey of nurse experience

A survey was carried out in July 2006 across NHS Boards the independent healthcare sector to gather information from senior nurses and midwives on their views regarding the care of patients in single rooms and staffing provision.

The consultation was open for 3 months from July to September 2006. Questionnaires were sent to all nurse directors for their response and distribution to key staff within each health board area. 72 responses were received from across a variety of nursing and midwifery areas ranging from acute to long term care. There was further opportunity throughout January and February 2007 for nurse directors to comment and contribute to this report, particularly in relation to nurse staffing levels associated with patient care in single rooms.
Response

1. Number of nursing areas with 3 or more single rooms within a ward area:

Table 1a

<table>
<thead>
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<th>No. of single rooms within each ward area</th>
<th>No. of nursing areas</th>
</tr>
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</tr>
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</tr>
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</tr>
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<td>&gt;30</td>
<td>25</td>
</tr>
<tr>
<td>Not stated</td>
<td>30</td>
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</table>

From this it is clear that the majority of nursing care areas have single rooms or 'side rooms.' Most having between 3 and 10 adjacent to the main nursing area. The survey did not question whether or not these rooms had en-suite or dedicated toilet facilities.

2. Types of patients cared for:

Table 1b describes the variety of wards where a response was received to the survey. It appears that single rooms are most often used to accommodate patients who have infections or who are terminally ill. There were a significant number of responders who were not specific about why patients were admitted to single rooms. In follow up conversations, it was clarified that the users can vary from generally fit patients, undergoing routine procedures, who have requested a single room to those who need ‘special’ one to one nursing care. New hospitals are now built where single rooms occupy between 30% to 50% of the patient care areas. Policies are being developed locally that outline the criteria and decision making process in single room allocation.
In addition to canvassing the view of senior ward nurses and midwives via the Nurse Directors, the proposal to move to greater percentages of single room accommodation has been discussed at Scotland’s Executive Nurse Directors (SEND) Meeting and dedicated meetings have taken place with some Directors of Nursing to gauge their views.

At the SEND meetings there was agreement that we should wholly support the provision of 100% single room accommodation. It is acknowledged that the pace at which this could be provided would be dictated by a number of factors, such as funding for new builds or refurbishments and bed pressures. The view is strong amongst the majority of this group that 100% single room sleeping accommodation is a highly desirable, if not essential, objective that should be pursued and that a number of issues for patients and nurses need consideration.
Children’s Services

As part of the Reprovision Project to replace the Royal Hospital for Sick Children in Edinburgh, a number of consultation initiatives took place with small groups from charity and volunteering organisations. One of the questions that was asked was:

‘Should the patient areas have single rooms or rooms of 4/6 beds or a mixture of both?’

Responses indicated a mixed view depending on the organisation approached. However children, young people and their families preferred an option that included but was not exclusively single rooms. The majority of respondents preferring a mixed room approach.

Currently children and young people are allocated single rooms prioritised on the following criteria:

- Infection requiring isolation
- Mothers who are breastfeeding
- Terminally ill
- Adolescents

Views of Children’s Nurses

Not all parents will stay with their child overnight or are visiting the hospital all the time during the day. Children and many young people often feel very isolated and alone when they are in cubicles and enjoy the social interaction of being in a ward area beside other children. In addition younger children and babies, unlike adults, are not able to use nurse call systems and therefore observation of them is more difficult if all were to be nursed in single rooms.

Children as part of their development require social interaction and for those who are unable to mobilise and confined to their bed and therefore not able to use the playroom, benefit from being nursed beside other children.

At a recent meeting of senior nurses across the U.K (Association of Chief Children’s Nurses) there was discussion about whether there should be 100% cubicles and this was not supported, as it is recognised that children find great comfort from sharing with others, especially when their parents are not with them.

It was recognised that many adolescents would wish to be in a single room for privacy, however equally many of them also wanted to share and that consideration needs to be given in relation to segregation of male and female patients.

In addition it was felt that having a 100% single rooms would require higher patient: nurse staffing ratios because of the dependence of babies and young children on nursing staff, which is different to the dependence and support required by adult patients.
Patient : Nurse Ratios & Staffing of single room accommodation

Nurse Directors agree that ‘direct care - nurse workforce planning’ is based on the type and dependency of the patient. That is, the number of hours per patient day required, including supervision or calculated another way; the number of nurses per occupied bed. This is currently worked out using a variety of different models around the country. Work is well underway through nursing workforce and workload planning groups to coordinate/ deliver guidance on approaching and managing this. A programme of implementation of nursing workload measurement tools across acute care, mental health and learning disabilities, maternity, paediatric and neonatal care will be rolled out across Scotland over the Autumn 07 and Spring 08.

There is almost 100% agreement amongst those that responded that additional staffing for single rooms in most patient settings is not required in a single room environment providing the following are in place:

- full and adequate staffing levels which support direct patient care hours
- adequate budget allocation for predictable absence - for training & supervision, continuous professional development and leave allowances.

With the right building blocks of workforce planning in place, day to day management of unplanned absence or unplanned fluctuations in patient activity or condition (not always built into department workforce plans), is no different if the environment is bays or single rooms.
Patient Benefits

There is a limited amount of literature published on single room provision and associated staffing. An excellent US paper describes some empirical evidence and observations:


Further information is available in the following 2 papers:


From this and the information gathered from nurse leaders and nurses, the following are some of the key considerations in terms of benefits and risks.

The benefits of single rooms to patients are clear:

- Reduced risk of cross-infection
- Increase privacy and dignity and confidentiality
- Increased opportunity for family and carers to be involved in caring process
- Reduced sleep disruption – light and noise
- Reduced need to be moved around ward or to another ward as condition/treatment plan changes or because of gender issues, therefore less likelihood of confusion.

“Infection originating in hospitals and other healthcare facilities is now recognised as a serious and widespread problem. Although standards of hygiene in healthcare facilities and standards of personal hygiene have been identified as likely sources of infection and infection spread, it can also be said that the design, planning, construction, refurbishment and ongoing maintenance of the healthcare facility also have an important role to play in the control of infection”.

Patient Management

High level benefits are listed below but clearly more work is required in gauging what the financial benefits of these could be:

- Opportunity for higher occupancy – sometimes this can be restricted in open bay wards because of gender or clinical management. There is an estimate that 10% more throughput can be achieved in a single room environment

- Reduction in costs associated with patient transfers (boarders) to other areas because of gender issues.

- Reduced length of hospital stay due to a more conducive environment and reduced risk of infection – therefore reduced operating costs.

- Reduces staff costs in patient transfer time although more evidence for the UK is required.
Patient Safety and Ward Security

Potential for reduced patient supervision

It is clear that within a single room environment there is reduced opportunity to visibly supervise patients and visitors. Investment in modern technology offers some solution

- Networked haemodynamic monitoring systems to central and designated areas
- Bed alarms and adequate side rails
- Windowed areas on walls/doors that can be screened for privacy when required
- Call/intercom systems that are fielded centrally to appropriate service – not always nursing – e.g. catering requirements can be directed to that dept and save on nursing time.

Patient assessment should include risk assessment for suitability of a single room. This is done at pre-admission assessment or on transfer/admission to the ward environment. Clearly workforce planning needs to take consideration of those patients who require additional supervision as this increases the nursing hours per patient day requirement. Additional supervision will also be prescribed within the treatment or care plan.

Unfortunately patient falls from bed are a genuine risk. Prevention is ongoing work for nurses and other healthcare staff. It is possible that it may take longer to notice a patient who has fallen in a single room and we need to think carefully about how this is managed both in terms of room layout and patient care.

Room doors are often left open and there is a substantial amount of passing ward traffic to hear calls for help or notice that a patient has fallen. Where possible, architectural design of observation windows in room walls and doors is useful.

Sudden acute changes in patient condition

In many cases this should be rare as early warning monitoring procedures are becoming more common in nursing, prompting the need to consider increased nursing hours to sicker patients or transfer to critical care areas to accommodate deteriorating patient conditions.
Patient Isolation

Patient Management

Socialisation of patients will be managed as part of the patient pathway or care plan. Encouragement of mobilisation where appropriate reduces length of stay and improves health.

It is very important that space and facilities are provided within the ward design or even out with the ward, to accommodate areas where patients can not only socialise but be provided with therapeutic activities, recreation and rehabilitation.

Technology

Television access, telephone and internet access in patient rooms can be put in place. This too needs to be managed so that patients do not forget to mobilise! However these services would be helpful for bed bound patients such as young orthopaedic trauma patients.

Patient Choice

Below is an extract of comments from a nurse director who was recently a patient in hospital:

“What struck me while being cared for in a 6 bedded room was that I had no choice around privacy, confidentiality, family involvement or just quiet time on my own. My view would be that a modern day healthcare facility should have a combination of rooms/areas that allows each patient to choose if and when they feel they wish to spend time privately or with the company of others.

Modern day patients expect a lot a more from healthcare these days; not only in new technologies but in accommodation. Global travel, media coverage of healthcare associated infections and hospital cleanliness have fuelled patient demand and expectations of hospital accommodation. People do not usually choose to share accommodation with strangers but at the most intimate and emotional times of their lives (or that of a family member) they are expected to – in a hospital.
Other considerations need to be taken into account and factored into management and design arrangements, such as storage space within single rooms (often wall cupboards). Single rooms work most effectively when each room is stocked with basic care items to prevent unnecessary and time-wasting staff journeys around an increased ward footprint.

Reducing the number of beds in current multi-occupancy accommodation may be a ‘quick-win’ for patients in an effort to start improving patient accommodation. Patients dislike the middle beds in the six bedded areas so plans to move to four and then two bedded areas would be beneficial. Replacing ‘privacy’ curtains with retractable high visibility walls with screen options would further improve privacy and dignity. En-suite facilities, while desirable will not always be possible especially in hospitals that undergo refurbishment.
Patient Experience

A public survey has been conducted and results are within the overall peer group report.

A survey was also undertaken during the latter quarter of 2006 of ‘experienced’ patients. That is – patients who have experienced the single room environment and can also compare to traditional NHS environments of shared accommodation. The findings are as follows:

Response

The following survey was carried out in the Golden Jubilee National Hospital where patients are cared for in single room accommodation. The average age of the patient (retrieved from the hospital information system) was between 60 – 70 years for cardiac surgery patients and 60 – 80 years for orthopaedic surgery patients.

Returns were received from 57 patients undergoing a variety of elective surgery; cardiac, orthopaedic and general. 81% of this group had experience of both shared accommodation and single room accommodation in hospitals. Overwhelmingly patients preferred a single room and the reasons for this are demonstrated below.

Table 2

The tables below demonstrate the age profile of patients around the time of the survey.
Table 3a

Q1. What type of treatment did you have in hospital?

- Plastic surgery: 7%
- General surgery: 17%
- Heart surgery: 22%
- Hip/knee surgery: 42%
- Other: 12%

Q1a. Have you ever stayed overnight in hospital in a shared area/open ward environment?

- Yes: 81%
- No: 19%

Q1b. Have you ever stayed overnight in hospital in a single room environment?

- Yes: 51%
- No: 49%

Q1c. If you had to stay overnight in hospital again, what would you prefer?

- Shared: 2%
- Not stated: 5%
- Single: 93%
Table 3b

Q2a. Single room - did you feel lonely at any time?
- Yes: 9%
- No: 91%

Q2b. Single room - did noise disturb your sleep?
- Not stated: 2%
- Yes: 5%
- No: 93%

Q2c. Single room - did you feel it was difficult to get the attention of the nursing staff?
- Yes: 2%
- No: 98%

Q2d. Single room - did you feel a single room was better for your family/friends to visit?
- No: 2%
- Yes: 98%

Q2e. Single room - did you feel you could discuss personal matters in confidence without other patients hearing?
- No: 2%
- Yes: 98%

Q2f. Single room - did you feel you had more privacy?
- No: 2%
- Yes: 98%
<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Not Stated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3a. Shared room - did you feel lonely at any time?</td>
<td>14%</td>
<td>81%</td>
<td>5%</td>
</tr>
<tr>
<td>Q3b. Shared room - did noise disturb your sleep?</td>
<td>71%</td>
<td>29%</td>
<td>0%</td>
</tr>
<tr>
<td>Q3c. Shared room - did light from the nursing station or other bed areas disturb your sleep?</td>
<td>67%</td>
<td>33%</td>
<td>0%</td>
</tr>
<tr>
<td>Q3d. Shared room - did you feel it was difficult to get the attention of the nursing staff?</td>
<td>62%</td>
<td>33%</td>
<td>5%</td>
</tr>
<tr>
<td>Q3f. Shared room - did you feel you could discuss personal matters in confidence without other patients hearing?</td>
<td>45%</td>
<td>55%</td>
<td>0%</td>
</tr>
<tr>
<td>Q3g. Shared room - did you feel that you had more privacy?</td>
<td>40%</td>
<td>58%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Patient comments received

It is also important to note that at a recent option appraisal process in Ayrshire and Arran regarding the Provision of Continuing Care, it was made clear that "older people" would like the choice of single room accommodation. Although many agreed that they like the privacy and dignity aspects afforded by single rooms, as many felt they would feel isolated, therefore it is important to note this in the planning of social areas and treatment regimes. These comments were generated at Public Meetings throughout Ayrshire and submitted to the Board at the end of the consultation.
This is particularly important when moving long stay patients from a multi room environment to a single room environment where, unless there is excellent communication and support, patients could feel they are being punished by being put into a single room. This would apply more in care of the elderly or mental health/learning disability environments.

Sixty-one percent of patients in the NHS in Scotland are over 65 years and around 30% of NHS in-patient beds in Scotland are for geriatric or psycho-geriatric patients (NHS ISD Scotland).

Carers and Visitors

In a single room environment there is greater opportunity for carers/family members to be involved in care delivery and some rooms could be made large enough to accommodate an extra bed for the carer.

Open visiting or flexible/longer visiting times allows carers/visitors opportunities to visit at times that can be suitable to them that fit in with patient care and avoids the crowding of visitors traditionally seen in afternoons and evenings.
Housekeeping and catering issues

Single rooms accommodate the changing clinical conditions of patients or gender issues and as such can reduce the need for transfer around a ward or between wards. This in turn can reduce the housekeeping and catering workload that occurs when patients are moved around to accommodate other patients or changed management in an open ward setting.

Conversely if patients are moved from room to room more than once in their hospital episode, this puts additional strain on housekeeping as it is not just the bed space that requires cleaning but the whole room (and en-suite). It is also noted that some areas do not have dedicated domestic services or housekeepers and it is the nurses’ responsibility to clean the patient areas. However as hospital accommodation is redesigned, there lies an opportunity to review and examine the skill mix within the patient areas and the development of new roles e.g. Housekeeper, Healthcare Assistant.

Protected meal times afford patients time to enjoy their food as much as possible without interruption. This is possibly more achievable in a single room environment. As different patients have different eating habits and issues, single rooms offer a private space for dignity during mealtimes. On the other hand an area for social dining allows for social interaction and can reduce any feelings of isolation.

Across the United Kingdom

The Department of Health in England are undertaking a research project on the feasibility of single rooms and have allocated a ‘test’ single roomed area at the Hillingdon Hospital in Middlesex.

Causes for concern in relation to single rooms relate to visibility of staff/patients, increased staff workload and lack of social interaction. Although existing evidence from the US and other countries in Europe suggests that the advantages vastly outweigh the disadvantages of single rooms, there is insufficient UK evidence based on the current model of care.

The Hillingdon Hospital NHS Trust plans to rebuild the Hillingdon Hospital under a Private Finance Initiative to provide accommodation to replace its current outdated facilities.

The OBC was to provide 50% single bedroom accommodation. Since the development of the OBC the Trust has revisited its position on single bedrooms and is now considering the impact of increasing to 100% provision. To test the viability of this proposition in advance of the new hospital, the Trust embarked on an initiative to build a fully enabled pilot project comprising a 24-bed unit of single bedrooms with ensuite facilities and supporting accommodation.
Central to the initiative is the plan to test the prototype accommodation in use through an evidence-based programme of research. By collecting sound evidence concerning the effects of the pilot project unit on several outcomes, the research will generate important knowledge concerning the performance of the prototype design, and make possible evidence-based refinements to the final design brief.

Across the four countries of the UK there is a drive to introduce much more single room accommodation in new hospital builds, although this may equate to less than 10% of the overall in-patient accommodation. The issues are similar across the board in terms of patient perceptions and needs for socialization versus the need for privacy and dignity, coupled with concerns over staffing capacity in areas where skilled nursing staff to patient ratios are low.

Scottish Initiatives

With single room accommodation already in place in some hospitals and new hospitals with significant single room capacity being commissioned year on year in Scotland, it seems that a study could be undertaken in this country or more research collaboration across the four countries to provide real time learning for other Boards embarking on new builds or on refurbishment of existing premises.

- **New Galloway Hospital** – Stranraer. This is built around a capacity of 30% single rooms. The Nurse Director of this Board suggests that already staff find that more single rooms would have been beneficial.

- **New Larbert Hospital** – there will be 50% single room accommodation in this hospital.

- **New Southern Hospital** – Glasgow. The outline business case proposes 50% single rooms.

- **Wishaw General** Maternity facility which has Labour, Delivery, Recovery and Postpartum Rooms where women stay for the duration of their stay.

- **East Ayrshire Community Hospital** – 100% single room accommodation. The Nurse Director of this Board agrees that more single rooms should be provided in hospitals but that they may often be filled with the increasing numbers of infected patients or with those that are terminally ill.

- In the **Western Isles** staff are finding via HAI risk assessment that the default is that almost everyone should go into a single room and almost everyone has enough risk factors to require screening.

- The nurse survey outlined above confirms the most common uses of single rooms are for infected or terminally ill patients.

- The **State Hospital** has also had an OBC approval for a 90% re-build of the entire site; this will include the provision of 100% single en suite bedrooms.
• **The Golden Hospital Jubilee National** in Clydebank currently has 98% single en suite rooms. This is currently an elective facility for cardiac, orthopaedic and general surgery but will become a regional heart and lung centre with possibly the largest ICU and HDU facilities in the country. In these critical care areas, the single rooms are glass fronted with joining doors into adjacent rooms.

• **Mid Argyll Hospital**, now part of NHS Highland, was opened last year. It has 66 beds of which 53% are single.

• **Hawick Hospital** in the Borders opened in July 2005, has 50 beds of which 24% are single.

• **Victoria Infirmary** in Kirkcaldy being procured will be around 50% single rooms.

• **St Andrew’s Community Hospital** has 40 beds of which 40% are single. Building is due to start in 2007.

• **Clackmannanshire Community Hospital** has 45 beds of which 82% are single.

• **Easter Ross Community Hospital** has 66 beds of which 44% are single.

• **Stonehouse Hospital** has 98 beds of which 40% are single.

• **Forfar Community Resource Centre** has 77 beds of which 60% are single.
Conclusions

Senior nurses are much more aware of the proposals to increase the numbers of single rooms in hospitals. They are enthusiastic about the opportunity to be involved and are keen to explore and comment on innovative designs and new technology and make suggestions on how this will support and enhance the provision of patient healthcare.

In balancing this report, nurse directors and others considered whether there was a need to preserve some multi-occupancy rooms in some patient care areas where patients are more dependent on basic nursing care and where patient mobility is reduced. Such patients can feel insecure and are reassured by nurse visibility in the area. This should be achieved by adequate staffing levels. The consensus within this report is that 100% single room accommodation should be the starting point with risk assessment processes identifying why this shouldn’t be the case for some specialities.

Finally, consensus amongst nurse directors is that single room accommodation in itself should not increase the number of nurses required to care for patients. However where staffing levels are already compromised, these may be exacerbated by 100% single room accommodation.
Summary of Recommendations:

1. Development of risk assessment processes to identify why patients should not be cared for in single rooms.

2. Review of housekeeping and care assistant roles which would support the domestic management of single rooms.

3. A requirement for adequate social areas and planned activities built into care plans to encourage mobility out of single room and reduce isolation.

4. A requirement for good planning of storage space in single rooms and within ward areas.

5. Good planning and investment in technology to support the care of patients in single rooms.

6. Adequately designed and properly tested nurse staffing levels.

7. More evidence based UK research into the benefits and risks of single room accommodation.
ANNEX 7: Public Attitude Survey
Public attitudes on accommodation for in-patients within the NHS Estate in Scotland
Public attitudes on accommodation for in-patients within the NHS Estate in Scotland

Emma Collins

TNS System Three

Scottish Government Social Research
2008
It should be noted that since this research was commissioned a new Scottish government has been formed, which means that the report reflects commitments and strategic objectives conceived under the previous administration. The policies, strategies, objectives and commitments referred to in this report should not therefore be treated as current Government policy.
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EXECUTIVE SUMMARY

Background, objectives and methodology

1. The Scottish Government (formally known as the Scottish Executive) Health Property and Capital Planning Division conducted a review of the provision of single room accommodation for in-patients within the NHS estate in Scotland. This has highlighted a lack of information about the needs and wants of the Scottish population in relation to single room accommodation, and consequently this survey was commissioned to explore the issue.

2. The specific research objectives were to:
   • assess people’s accommodation preferences;
   • explore people’s opinions on where different groups should stay;
   • examine perceived benefits and risks;
   • examine awareness of current hospital accommodation.

3. Research was conducted by TNS System Three using the Scottish Opinion Survey (SOS) with fieldwork taking place between 23rd and 28th November 2006. In total, 990 interviews were achieved in 43 constituencies throughout Scotland - the sample being representative of the adult population of Scotland both demographically and geographically. The SOS was conducted using Computer Aided Personal Interviewing (CAPI).

Key findings

4. The majority of respondents had some experience of hospitals in the last five years – either as in-patients (37%), visiting friends or relatives (76%), or in the course of their work (8%). In total, almost a quarter (24%) had personally stayed in a smaller multi-bed ward (up to six people) as an in-patient, 13% in a single room, and 7% in a large ward (7+ people). Regarding visiting in-patients, 50% had visited friends or relatives in a smaller multi-bed ward, 27% in a single room, and 17% in a larger multi-bed ward. Linked to this, the majority of the sample (60%) felt that the smaller multi-bed wards were most common, followed by larger multi-bed wards (32%) and single rooms (5%).

5. If admitted as an in-patient, the most frequently preferred type of accommodation would be a single room (41%), followed by people saying that they didn’t mind (27%). Smaller multi-bed wards (22%) and larger multi-bed wards (3%) were considered less desirable. Looking at the sample based on their preferences, patterns of response by those who ‘don’t mind’ and those who prefer smaller multi-bedded wards were similar throughout.

6. Previous experience of types of hospital accommodation makes little difference to future preferences, although those who have stayed in or visited a smaller multi-bed ward are slightly more likely to prefer to stay in one should they be an in-patient in the future. Preference for single room accommodation increased with social grade (30% of those in the DE group increasing to 58% of ABs), and the younger age
groups were also more likely to prefer this type of accommodation. (49% of those aged 16-34 falling to 28% of those aged 65 and over).

7. The perceived advantages of staying in a single room were more privacy (75%) and that it would be less noisy (34%) – both more likely to be cited by those who would prefer to stay in a single room. The major disadvantage given was that you would feel isolated or lack company (69%) – in particular from those who would prefer to stay in a multi-bed ward. In conjunction with this, the major advantage of a multi-bed ward given was that you feel less isolated and have more company (78%), and the stated disadvantages were that you have less privacy (56%) and it is more noisy (48%). Those who preferred single rooms were more likely to see disadvantages of multi-bed rooms, and those who preferred multi-bed rooms were more likely to see disadvantages of single rooms.

8. The main groups that the sample felt should stay in a single room were those who are seriously ill (57%), those who are dying (27%), and people who have an infectious disease (24%). Only 11% felt that everyone should stay in a single room. The main groups that the sample felt should stay in a multi-bed room were people who were in hospital for a routine procedure (27%) and everyone (26%).

9. Despite the fact that the largest proportion of respondents would prefer to stay in single room accommodation, there was an acceptance that resources would not allow everybody to do so. There was little agreement overall about what sorts of groups should stay in single versus multiple accommodation, suggesting that people do not have very strong feelings on this topic. Although they tend to feel that the judgement should be made based on severity of illness, this could reflect the pattern of allocation they have personally observed in the NHS today.
CHAPTER ONE BACKGROUND AND METHOD

1.1 A review of the provision of single room accommodation for in-patients within the NHS Estate in Scotland was carried out by the Scottish Government Health Property and Capital Planning Division. As part of this process a peer review of a report commissioned by NHS Estates in England, which concerned single room accommodation, was undertaken.

1.2 One of the conclusions from the peer review was that there was a lack of information about the needs and wants of the Scottish population in relation to this issue, and that research was required to address this.

1.3 In order to tackle this requirement, the Scottish Government commissioned TNS System Three to conduct this research with Scotland’s general population to gather information about the Scottish population in terms of their attitudes to and knowledge about single versus multiple occupancy accommodation in hospitals. The intention is that, as part of a wider process, this will help to inform guidance on the provision of single room accommodation for in-patients within the NHS Scotland.

1.4 The specific research objectives were:

- To assess people’s preference to be accommodated in single versus multiple occupancy hospital accommodation;
- To explore people’s opinions on which groups should/should not be accommodated in single occupancy hospital accommodation;
- To examine the perceived benefits and risks associated with accommodating people in single or multiple occupancy accommodation;
- To examine the degree to which people are aware of the nature of hospital accommodation currently provided by NHS Scotland.

1.5 The TNS System Three CAPI (Computer Assisted Personal Interviewing) omnibus, Scottish Opinion Survey (SOS), was used to collect quantitative data.

1.6 A sample of 990 adults aged 16 and over was interviewed in-home in 43 sampling points throughout Scotland over the period 23rd – 28th November 2006. To ensure that the sample was representative of Scotland’s adult population in terms of age, sex and socio-economic group (SEG), it was weighted to match population estimates from the National Readership Survey of January – December 2004. The sample profile, both unweighted and weighted, is shown in Table 1.1.

---

1 The standard six social grades, commonly used in research, are based on the current or previous occupation of the chief income earner in the household. AB includes higher and intermediate managerial, administrative and professional occupations, C1 includes supervisory or clerical, and junior managerial, administrative or professional occupations, C2 includes skilled manual workers whilst DE includes semi and unskilled occupations, state pensioners and the long-term unemployed.

2 The results shown have been weighted to match Scotland’s demographic profile. Weighting is often used in analysis of survey data to correct any under/over representations of particular groups that occur during sampling.
Table 1.1 - Sample profile
Base: 990 (%)

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<th>Weighted</th>
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<tr>
<td>Male</td>
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<td>48</td>
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</table>

Notes on report

1.7 This report presents the findings for the sample as a whole. Sub-groups of the sample, such as different age groups, social classes, and gender are commented on where relevant and are also separated out in the data tabulations.

1.8 The main findings are summarised in the next chapter. Throughout the report, the figures referred to are weighted figures.

1.9 Where “*” appears in the report and data tables, this represents a percentage greater than zero but less than 0.5%. Within the tables in the report, the term ‘N’ refers to the unweighted base sample size.
CHAPTER TWO  MAIN FINDINGS

2.1 The main findings from the research are summarised below.

Sample background

2.2 A key influence on people’s knowledge about and attitudes to hospital accommodation, more specifically in relation to single rooms versus multiple occupancy wards, is the extent of their experience of hospitals and hospital accommodation generally. While it is important to recognise that people’s perceptions can be influenced by many sources such as television, other media and word of mouth, we also wanted to establish the level of first hand experience of hospital accommodation in the sample.

2.3 We identified three main ways in which people would gain experience of and knowledge about hospital accommodation: working in a hospital or visiting one in the course of one’s work; staying in hospital as an in-patient; or visiting another person in hospital.

2.4 Respondents were asked whether they worked in a hospital or regularly visited hospitals in the course of their work. The results are shown in Figure 2.1.

Figure 2.1 Experience of hospitals through work
Base: All respondents (990)

2.5 It can be seen that the vast majority of the sample did not have experience of hospital accommodation due to work related reasons. Although this varied a little by demographic group as one might expect with, for example, greater numbers of women and fewer of those above retirement age falling into this category, these differences were small and unlikely to have any effect on the views of this group as a whole.

2.6 Respondents were also asked whether they had, in the last five years, been an in-patient in hospital. It was important to limit this to the last five years to ensure that those that fell into this category had experience of relatively modern hospitals. The results are shown in Figure 2.2.
Nearly two thirds of the sample had not stayed in hospital as an in-patient in the past five years. For those who had stayed in hospital, the most common type of accommodation was a multi-bedded ward of up to six people, in which 24% of respondents had stayed, followed by a single room (13% of respondents had stayed in this type of accommodation). Respondents were less likely to have stayed in a large ward with more than six people with only 7% of the sample having done so.

Women were more likely than men to have stayed in hospital, however, there were no real differences in the types of accommodation experienced by women compared to men. Perhaps surprisingly, there was very little difference by age. Those aged 25 to 44 were slightly more likely to have been an in-patient in hospital in the last five years, and those aged 45 to 54 were slightly less likely to have stayed in hospital. Once again, there was little difference in the types of accommodation experienced by different age groups.

Those in social group DE were more likely than any other social group to have stayed in hospital in the past five years, with nearly half of DEs having done so compared to around one third of those in other social groups. Those in the AB group (the highest social group) were more likely than those in other social groups to have stayed in a single room while in hospital, with over half of those who had been in hospital staying in single room accommodation. This may reflect a greater tendency to use private hospitals where single rooms are more prevalent, but it is important to remember that this is based on a small number of patients (N=35 staying in single rooms).

There was no difference in experience of staying in hospital accommodation by location.

Those respondents who had stayed in hospital accommodation in the past five years were asked how many nights in total they estimated that they had spent there.
2.12 It is important to remember that the number of nights reported by each respondent is a cumulative total of all the occasions they have been in hospital. The graph shows that, as we would expect, it was most common for people to stay in hospital for short periods of time.

2.13 There was no real variation by gender and, as expected, there was a tendency for those aged 55 and over to be more likely to have spent longer in hospital compared to those in younger age groups. Almost half of those in this age group who had stayed in hospital had spent 10 or more nights. Those in the lowest social grade, DE, were more likely to have spent 10 or more nights in hospital (40% had done so) than those in other social grades (around one quarter of people in all other social grades had done so). These figures reflect previously established patterns relating to health, age and social grade.

2.14 We also wanted to establish how much experience respondents had of hospital accommodation as visitors. We first asked those respondents who had children aged under 16 (N=296, 29% of the sample) if they had been to visit their child in hospital in the past five years. Only 29% of this sub-group had done so. As this is only 85 respondents in total, it is not possible to break these results down further, although the type of accommodation in which the children stayed follows the same pattern as adults. The largest number of children had stayed in a multi-bedded ward of six or less, followed by a single room and fewer had stayed in a large ward of more than six.

2.15 Respondents were then asked if they had visited someone staying as an in-patient in hospital in the past five years. Please note that, of the respondents who had visited their child in hospital, 91% had also responded yes to this question and we are confident that they would draw on both experiences when completing the survey. The results of this question are shown in Figure 2.4.
2.16 Three quarters of the sample had visited someone in hospital in the past five years. Half of the sample had experience of visiting someone staying in a multi-bedded ward of up to six people, around one quarter had visited someone staying in a single room and just less than one fifth of respondents had visited someone staying in a large ward of more than six people.

2.17 There were no differences in terms of gender. There was little variation in terms of age, although those aged 16 to 24 were less likely to have visited someone in hospital than those in other age groups (68% had done so).

2.18 Those who lived in the East/South of Scotland were slightly less likely to have visited someone in hospital in the past five years than those in other areas of the country, with 69% having done so compared to 79% of those living in both the North and the West.

2.19 Those respondents who had visited someone (either their child or someone else) staying in hospital as an in-patient in the past five years were also asked on how many different days they estimated they had visited. The results are shown in Figure 2.5.

2.20 Around one in three people had visited someone in hospital on between one and three different days. Similarly one in three had visited on between four and nine different days and on between 10 and 49 different days. It was much less common to have visited on more occasions than this, with only 9% having done so. It is important to remember that this is a cumulative number of visits and could include visiting more than one person or visiting the same person on multiple occasions. As an indication of how much experience the sample has of current hospital accommodation, this would suggest that the majority of respondents have a reasonable amount of experience and some have much experience.
Figure 2.5 Number of different days on which respondents visited someone staying in hospital
Base: All who have visited their child or another person staying in hospital in the past five years (759)

![Bar chart showing the number of different days respondents visited someone staying in hospital.](chart1.png)

Perceptions of what NHS hospitals look like today

2.21 A related issue was the degree to which people are aware of the nature of hospital accommodation currently provided by NHS Scotland. To assess this, respondents were shown pictures of three types of hospital ward and asked which one they thought was most common in hospitals nowadays. The pictures showed a smaller multi-bedded ward, a larger multi-bedded ward and a single room. The pictures are shown in Appendix 3. Figure 2.6 shows the responses to this question.

Figure 2.6 Perceptions of which type of accommodation is most common
Base: All respondents (990)

![Bar chart showing perceptions of the most common type of hospital ward.](chart2.png)
Respondents are aware that there are different types of hospital accommodation available. As we have noted, the majority of the sample had recent experience of hospital accommodation with the largest proportion of people who had stayed in hospital or visited hospital having experience of multi-bedded wards of up to six people. This was reflected in responses when asked about the type of accommodation they thought was most common. The majority of respondents (60%) said that smaller multi-bedded wards were the most common type of ward. However, despite the fact that people had greater experience of staying in and visiting single rooms compared with large multi-bedded wards, they did not believe that single rooms were more common. Thirty two percent of respondents thought that large multi-bedded wards were the most common type of accommodation, while very few respondents thought that single rooms were the most common (5%).

There was no difference by age, and though the youngest and oldest age groups thought the balance between large and small wards was more even, there was no difference in the proportion saying that single rooms were the most common type of accommodation. While in all areas the majority believed smaller multi-bedded wards were most common, a greater proportion of those living in the west of Scotland thought that larger multi-bedded wards were the most common (38%) compared with those in the south/east (24%) and the north (32%).

Those in the AB group were considerably more likely to believe that smaller multi-bedded wards were the most common type of accommodation (73% gave this response) and, despite the fact that a higher proportion of people in this social group had stayed in single rooms compared to other social groups, only 1% of ABs thought that single room accommodation was the most common.

There were no differences in the responses of those who worked in or visited hospitals in the course of their work compared with those who did not. This may suggest that the sample, as a whole, had a relatively accurate perception of what type of hospital accommodation is most common. There were also no differences between those who had and had not stayed in hospital.

Those who had visited someone staying in hospital were more likely than those who had not to think that smaller multi-bedded wards were the most common type of accommodation (63% of those who had compared with 50% of those who hadn’t) no matter what sort of accommodation they had actually visited.

Preferences for different types of hospital accommodation

One of our objectives was to assess people’s preferences in terms of which type of accommodation they would like to stay in, were they admitted to hospital. The responses to this question are shown in Figure 2.6.

By far the most preferred option was to be accommodated in a single room, with 41% of the sample saying they would prefer to stay in this type of accommodation. However, it must be remembered that this still accounts for less than half the sample. Twenty two percent of respondents would prefer to stay in a multi-bedded ward of up
to six people, while very few would prefer to stay in a large ward of more than six people. Twenty seven percent said they would not mind what sort of accommodation they stayed in.

**Figure 2.6 Type of accommodation preferred if admitted to hospital**

*Base: All respondents (990)*

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A single room</td>
<td>41%</td>
</tr>
<tr>
<td>A multi-bedded room with up to 6 people</td>
<td>22%</td>
</tr>
<tr>
<td>A large ward with more than 6 people</td>
<td>3%</td>
</tr>
<tr>
<td>Don't mind</td>
<td>27%</td>
</tr>
<tr>
<td>It depends</td>
<td>6%</td>
</tr>
<tr>
<td>Don't know</td>
<td>1%</td>
</tr>
</tbody>
</table>

2.29 Men were much more likely to say that they didn’t mind what sort of accommodation they stayed in (34% of men compared with 21% of women). Those in the younger age groups were the most likely to want to stay in a single room, with nearly half of those aged 16 to 34 saying they would prefer this type of accommodation. In contrast fewer of those in older age groups (37% of those aged 55 to 64 and 28% of those aged 65 and over) would like to stay in a single room, but were more likely than other groups to report a preference for multi-bedded wards of up to six people (preferred by 30% of those aged 55 to 64 and 36% of those aged 65 and over).

2.30 Preference for single room accommodation increased with social grade (30% of those in the DE group would prefer this type of accommodation compared to 36% of C2s, 41% of C1s and 58% of ABs). ABC1s were much less likely to want to stay in a multi-bedded ward of up to six people. Less than one in five respondents in these groups expressed a preference for this type of accommodation compared with over one quarter of C2DEs. There was no real difference in preference by area.

2.31 Figure 2.7 shows respondents’ accommodation preferences by whether they had stayed in or visited someone staying in hospital in the past five years. As very few respondents said they would prefer to stay in a large ward of more than six people or that they did not know what type of accommodation they would prefer, these categories are not shown on the chart.

2.32 As can be seen from Figure 2.7, experience of hospital accommodation makes little difference to accommodation preference. For example, there does not appear to be any difference in preference of staying in a single room by experience of hospital accommodation. However, there is a greater tendency for both those who have stayed
in hospital and those who have visited hospital to express a preference for staying in a multi-bedded ward of up to six, though these differences are not great.

**Figure 2.7 Preferred type of accommodation by experience of hospital accommodation**

Base: All respondents (990)

<table>
<thead>
<tr>
<th>Accommodation Type</th>
<th>Stayed</th>
<th>Not Stayed</th>
<th>Visited</th>
<th>Not Visited</th>
</tr>
</thead>
<tbody>
<tr>
<td>A single room</td>
<td>42%</td>
<td>41%</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td>Don’t mind</td>
<td>27%</td>
<td>28%</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>A multi-bedded room with up to 6</td>
<td>27%</td>
<td>20%</td>
<td>23%</td>
<td>20%</td>
</tr>
<tr>
<td>people</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It depends</td>
<td>8%</td>
<td>7%</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

2.33 Respondents were also asked to give their reasons for their stated accommodation preference. This was an open-ended question so respondents spontaneously gave any reason they chose and were allowed to give more than one reason. We are therefore confident that the responses to this question represent the immediate rather than considered factors that are important to people when they think about staying in hospital.

2.34 The main reason given by those respondents who said they would prefer to stay in single room accommodation was privacy, with having or enjoying privacy mentioned by 79% of those who would prefer this type of accommodation. Eight percent of respondents mentioned not liking noise or noisy people and a further 8% mentioned that peace and quiet was important when one was ill. Smaller proportions of respondents mentioned other reasons including less risk of infection in a single room, that they didn’t mix well with others or that a better standard of care would be available in a single room.

2.35 For those respondents who would prefer to stay in a multi-bedded ward of up to six people, the most common reason for this preference was having company or someone to talk to, which was mentioned by 81% of these respondents. All other reasons were mentioned by fewer than 5% of respondents and included it being boring in a single room, that you would get more attention in a multi-bedded ward and that it would stimulate well-being.
2.36 As previously mentioned, very few people would prefer to stay in a large ward of more than six people but for the 3% of the sample who expressed this preference the reasons given were very similar to those given by respondents who would prefer to stay in a small multi-bedded ward.

2.37 The most common reasons given by those who didn’t mind what sort of accommodation they would stay in (27% of the sample) were that they didn’t mind as long as they got good care (40%) or that they were not fussy/not bothered (24%). Despite saying that they didn’t mind, 18% of this group said that they liked company or someone to talk to, suggesting that although they say they don’t mind they would prefer not to be accommodated in a single room. All other reasons were given by less than 5% of this group and included that ‘you should be glad to get a bed’, that they ‘don’t mind as long as it’s not a mixed ward’ and that it would depend on the illness.

2.38 Finally, for the few respondents (6%) who said that ‘It depends’, the primary factor that they thought would be important was the type of illness for which they were being admitted. Other factors mentioned were that: respondents believed that if they were seriously or terminally ill they would prefer a single room; that it depended on what was available at the time; and that they would not want a mixed ward.

Perceived advantages and disadvantages of different types of accommodation

2.39 Another objective of the research was to examine the perceived benefits and risks associated with accommodating people in single or multiple occupancy accommodation. Asking respondents to give reasons for their preferred type of accommodation allowed us to probe the spontaneous ‘top line’ advantages of different types of hospital accommodation. We then asked respondents more directly to consider the advantages and disadvantages of different types of accommodation, without prompting.

2.40 Firstly, we asked what respondents thought were the advantages for in-patients staying for one or more nights in a single room in hospital. Respondents were allowed to give as many benefits as they wanted and were encouraged to answer as fully as possible, however, they were not prompted. Figure 2.8 shows the most common responses to this question.

2.41 The most commonly mentioned advantage was more privacy, which was perceived as a benefit by three quarters of the sample. Just over one third of the sample mentioned less noise as a benefit of staying in a single room. Other perceived benefits, mentioned by less than 10% of the sample, included single rooms giving you more dignity, and having your own bathroom. These benefits also, to an extent, relate to privacy.

2.42 Fewer people mentioned advantages like single rooms making it easier to talk about your condition or other confidential matters, the fact that you would not disturb others and being able to choose whether to watch and what to watch on television. A full list of responses to this question is given in Appendix 2.
There was a slight tendency for women to mention each of the top three advantages compared to men: privacy was mentioned by 77% of women compared with 73% of men; noise by 37% of women compared with 31% of men; and dignity by 12% of women compared with 6% of men. This is consistent with a greater percentage of men saying that they did not mind what sort of accommodation they stayed in.

Those aged 65 and over were less likely to mention privacy (mentioned by 59%) and noise (mentioned by 28%) than any other age group. This age group was also most likely to say that there were no advantages or they did not know of any advantages, with 20% doing so. This is consistent with older age groups more frequently expressing a preference for multi-bedded wards – although we will explore the effect of preference in greater detail below.

There were very few differences in terms of other demographic variables, although those who worked in hospitals or visited hospitals in the course of their work were more inclined to say that privacy was an advantage (85%) than those who did not (74%) and indeed more likely to mention this than any other single group.

There was very little consistent difference by area, although those in the East/South were slightly less likely to consider less noise to be an advantage (27%) compared to those in the North (35%) or West (40%) of Scotland.

There was very little difference in responses from those who have stayed in hospital in any type of accommodation in the past five years versus those who have not. However, less noise was mentioned by more than 41% of those who had stayed in hospital as an in-patient compared with 35% of those who had not. Due to the small numbers involved it is difficult to comment on any differences by the type of accommodation stayed in with any confidence.
2.48 There were a few differences between those who had visited someone staying in hospital in the past five years and those who had not. Those who had were slightly more likely to mention privacy which was mentioned by 77% of visitors compared with 69% of non-visitors. Although, due to small numbers we cannot comment with confidence on differences by the type of accommodation that was visited, there appears to be a trend that less noise was more often mentioned as an advantage by those who had visited someone in a single room compared with those who had visited someone in another type of accommodation or who had not visited at all.

2.49 When we look at perceived advantages of single rooms broken down by the type of accommodation that people would prefer to stay in, there is a clear pattern. Those who would prefer to be accommodated in a single room were more likely to mention almost every advantage than those who expressed another preference. Figure 2.9 shows the top four advantages by preferred accommodation. As so few respondents (3%) said that they would prefer to stay in a large ward with more than 6 beds, these responses have been combined with those saying they would prefer to stay in a multi-bedded ward of up to six people.

**Figure 2.9 Perceived advantages of single room accommodation by preferred type of accommodation**

Base: All respondents (990)

![Bar chart showing perceived advantages of single room accommodation by preferred type of accommodation]

2.50 Some of the key things shown in the chart are the fact that those who would prefer to stay in single room accommodation see greater advantages than those expressing a different preference. Every person who expressed a preference for single room accommodation named at least one advantage of this type of accommodation whereas nearly one in five of those who would prefer to stay in a multi-bedded ward or who didn’t mind which type of accommodation they stayed in said there were no advantages to single room accommodation.
2.51 Here, we continue to see the pattern of those who say they do not mind in what sort of accommodation they stay giving similar responses to those who say they would prefer to stay in multi-bedded wards. This suggests that these two groups may be similar.

2.52 We also asked respondents what they thought were the disadvantages to in-patients staying in single room accommodation. As with advantages, a small number of categories come through strongly and we will concentrate on these as small numbers prevent detailed analysis of the other categories. A full list is available in Appendix 2. Figure 2.10 shows the most common responses.

2.53 The two disadvantages most commonly mentioned - isolation or lack of company which was mentioned by 69% of respondents and too quiet which was mentioned by 13% - are, in a sense, mirror images of the advantages, privacy and less noise. Twelve percent of respondents mentioned a concern that staff might forget about you or not check on you as much if you were in a single room. Nearly one fifth of the sample did not mention any disadvantages relating to single rooms. No more than 2% of respondents mentioned any other disadvantage.

Figure 2.10 Disadvantages of staying in a single room
Base: All respondents (990)

2.54 There were no real differences by gender or social class, though there was some variation by age. For example, those aged 16 to 24 and those aged 65 and over were slightly less likely to mention feeling isolated (mentioned by around 65%) compared to those aged 25 to 34 and 55 to 64 (mentioned by around 75% of these groups).

2.55 There was some variation by geographic area. Those in the West of Scotland were most likely to see a lack of company as a disadvantage (73%), followed by those in the North (69%), and those in the East/South (65%). Additionally, those in the East/South were more likely to mention single rooms being too quiet or having less going on as a disadvantage (17%) compared to both those in the West and those in the North (11% in each area mentioned this).
Those who worked in a hospital or visited a hospital in the course of their work were more likely to mention any disadvantage, with 88% doing so. This was particularly evidenced by 81% saying that people in single rooms could feel isolated. As this group were also more likely to mention advantages of single room accommodation, this may reflect a more in depth knowledge of the different aspects of hospital accommodation.

Having stayed in different types of hospital accommodation in the past five years also appeared to affect responses. Sixty nine percent of those who had not stayed in hospital thought that being isolated would be a disadvantage of staying in a single room. However, only 62% of those who had actually stayed in a single room saw this as a disadvantage compared with around 75% of those who had stayed in any type of multi-bedded room. Those who had stayed in a single room were also less likely to mention any disadvantage (around a quarter said there were no disadvantages) compared with those who had not stayed in hospital (20% saw no disadvantage) or those who had stayed in a multi-bedded ward (around 15% saw no disadvantage).

This pattern was not evident for those who had visited a person staying in hospital in the past five years. Those who had not visited were less likely to see disadvantages of staying in single room accommodation (23% saw no disadvantage) compared with those who had visited someone (19% of those visiting a person in a single room and around 17% of those visiting a person in a multi-bedded room saw no disadvantage). Those who had not visited someone were also less likely to say that isolation was a disadvantage (63%), compared with those who had visited (71% visitors to a single room and around 73% visitors to a multi-bedded room).

These results suggest that the patient experience of single rooms is more positive than it is perceived to be by those who either visit people in hospital or who work in or visit hospitals during the course of their work. However, it is important to remember that, of those who have stayed in a single room in the past five years, three quarters did see disadvantages in this type of accommodation and their primary concern was isolation or a lack of company. However, as we did not ask about advantages and disadvantages for respondents personally, this finding could relate to how they objectively saw this type of accommodation for people in general, rather than concerns they had for themselves specifically.

Figure 2.11 shows disadvantages of single rooms by preferred accommodation. Once again, it is evident that those who would prefer to stay in a single room are more likely to say there are no disadvantages with this type of accommodation (29%) compared with those who expressed any other preference and in particular those who would prefer to be accommodated in a multi-bedded ward (only 8% of these respondents saw no disadvantages). Those who would prefer to stay in a single room were also less likely to say that isolation or a lack of company (56%) or single rooms being too quiet (8%) were disadvantages compared with other respondents.
2.61 We then asked respondents what they would say were the advantages for in-patients staying one or more nights in a multi-bedded ward of up to six people or a large ward with others. Again respondents were allowed to give more than one advantage and were not prompted in their answers. The main advantages are shown in Figure 2.12.

Figure 2.11 Perceived disadvantages of single room accommodation by preferred type of accommodation
Base: All respondents (990)

Figure 2.12 Advantages of staying in a multi-bedded ward
Base: All respondents (990)
The biggest perceived advantage of staying in a multi-bedded ward was having more company and not feeling isolated and this was mentioned by 78% of the sample. Twelve percent of respondents said that they thought that staff were more likely to notice that you need help and 10% said that staff were not liable to forget you or more liable to check on you. No more than 2% of respondents mentioned any other advantage (a full list is given in Appendix 2). Fourteen percent of respondents said that there were no advantages to staying in a multi-bedded ward or that they would prefer to be on their own.

There were no differences in the responses by gender or social class. There was some variation by age, but this did not relate to the main advantage (more company and lack of isolation) and the differences are unlikely to be significant. There were no differences in terms of working in a hospital or visiting one in the course of one’s work.

There was some variation by geographic area in relation to the main disadvantages. Those in the West of Scotland were most likely to see having more company and not feeling isolated as an advantage (82%), followed by those in the North (77%) and those in the East/South (73%). This follows the previous responses in relation to perceiving a lack of company as a disadvantage of single room accommodation. Those in the North were more likely to mention staff being more likely to notice you need help as an advantage (17%) compared to those in the East/South (13%) or West (9%).

There were no real differences in perceived advantages by those who had stayed in hospital in the past five years compared with those who had not. However, if we look at this by type of accommodation stayed in, those who had stayed in a single room were less likely to say that more company was an advantage (mentioned by 72%) compared with those who had stayed in a multi-bedded room (around 85%).

Those who had visited someone in hospital in the past five years showed the same pattern of results as those who had stayed in hospital in the past five years, whereas those who had not visited were less likely to mention any of the advantages and more likely to say there were no advantages.

If we look at perceived advantages of a multi-bedded ward by preferred type of accommodation, we see a similar pattern as for single room accommodation. Those who would prefer to stay in a multi-bedded ward saw greater advantages overall compared with those who would prefer to stay in a single room. Only 6% of those who would prefer to stay in a multi-bedded ward said there were no advantages to this type of accommodation compared with nearly one quarter of those who would prefer to stay in a single room.

Those who would prefer single room accommodation were also far less likely to say that having more company or someone to talk to is an advantage - 67% of this group gave this response compared with 89% of those who would prefer to stay in a multi-bedded room. There were no other differences between these groups in terms of which advantages were mentioned.
2.69 It is interesting to note that those who said they did not mind what sort of accommodation they stayed in again gave similar responses to those who would like to stay in multi-bedded accommodation adding weight to the argument that these groups are similar.

2.70 Finally, we asked about the disadvantages of staying in a multi-bedded ward. Only two disadvantages were mentioned by more than 8% of the sample. Fifty six percent of respondents said that less or no privacy would be a disadvantage and 48% that multi-bedded wards being noisier would be a disadvantage. This indicates that, while people are just as likely to see disadvantages of multi-bedded accommodation compared with single room accommodation, there is less agreement about what the disadvantages actually are.

2.71 There was no variation by gender. Those aged 35 to 44 were more likely than average to mention that a lack of privacy was a disadvantage (mentioned by 68% of this age group), particularly in comparison with those aged 65 and over who were much less likely than average to see this as a disadvantage (only 42% mentioned this). There was also no real variation by age in terms of seeing noise as a disadvantage.

2.72 Concern about privacy varied considerably by social class. Those in the AB group were particularly likely to mention this disadvantage (mentioned by 69%) compared with those in the C1C2 groups (mentioned by 56%) and those in the DE group (mentioned by 48%).

2.73 In terms of geographic area, those in the East/South were slightly less likely to mention either of these disadvantages compared to other areas. A lack of privacy was mentioned by 52% of those in the East/South compared to 57% of those in the West and 60% of those in the North, while noise was mentioned by 42% of those in the East/South compared to 52% of those in the West and 48% of those in the North.

2.74 Those who worked in or visited hospitals during the course of their work were more likely to see lack of privacy as a disadvantage, with 69% of this group mentioning it compared to 55% of those who did not work in or visit hospitals for work. Again this could reflect greater objective consideration of different types of accommodation.

2.75 There were no differences between the disadvantages perceived by those who had stayed in hospital at all compared with those who had not stayed in hospital at all although those who had stayed in a single room were more likely to mention lack of privacy as a disadvantage (mentioned by 62%) compared with those who had stayed in multi-bedded wards (mentioned by around 50%).

2.76 There were no real differences between the disadvantages perceived by those who had visited someone in hospital in the past five years compared with those who had not; neither did this vary by the type of accommodation they had visited.

2.77 As with the previous questions, preferred type of accommodation had an effect on the perceived disadvantages of multi-bedded wards. The results are shown in Figure 2.13.
2.78 Those who preferred to stay in a single room were less likely to say that there were no disadvantages of multi-bedded accommodation, with 10% of this group saying so, compared with 19% of those who would prefer to stay in a multi-bedded ward or who did not mind what accommodation they stayed in.

2.79 Privacy was a big concern for those who would prefer to stay in a single room (mentioned by 70%) compared with those of those who would prefer to stay in a multi-bedded ward (42%) or who did not mind what accommodation they stayed in (49%). However, there was little difference in the perception of noise as a disadvantage.

2.80 Once again, those who said that they did not mind what type of accommodation they stayed in responded in a similar way to those who would prefer to stay in multi-bedded accommodation. We would speculate that this pattern could be connected to the fact that, as people believe multi-bedded wards to be the most common type of hospital accommodation, they expect to be accommodated in this type of ward. They therefore look for advantages and disadvantages that complement their expectations.

Who should stay in single versus multiple occupancy accommodation?

2.81 A further objective of the research was to explore people’s opinions on who should be accommodated in single occupancy hospital accommodation. Respondents were told that not all hospitals had single rooms for every patient. They were then asked, without prompting, firstly, who they thought should generally stay in a single room
and secondly, who they thought should generally stay in a multi-bedded room or large ward. They could give more than one answer if they chose.

2.82 The most common responses to these questions are discussed below. Figure 2.14 shows the groups that people thought should be accommodated in a single room.

Figure 2.14 Who should stay in a single room?
Base: All respondents (990)

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>People who are seriously ill</td>
<td>57%</td>
</tr>
<tr>
<td>People who are dying</td>
<td>27%</td>
</tr>
<tr>
<td>People who have an infectious disease</td>
<td>24%</td>
</tr>
<tr>
<td>People in intensive care</td>
<td>18%</td>
</tr>
<tr>
<td>Older people</td>
<td>14%</td>
</tr>
<tr>
<td>Everybody</td>
<td>11%</td>
</tr>
<tr>
<td>None/ Don't know</td>
<td>11%</td>
</tr>
</tbody>
</table>

2.83 At first glance, there does not seem to be much agreement about which groups should be accommodated in a single room. However, closer inspection suggests that severity of illness has been used as a criteria to make this judgement, with this being reflected in each of the four most common responses (and possibly with older people also being equated with having more serious illness).

2.84 The groups that most people thought should stay in single room accommodation were those who are seriously ill (mentioned by 57% of the sample) followed by those who are dying (27%). One quarter of the sample thought that those who had an infectious disease should be accommodated in a single room and 18% thought that people in intensive care should stay in a single room. Older people were mentioned by 14% of respondents while 11% said that they either didn’t know who should stay in a single room or that no one should.

2.85 Despite the fact that around four in ten respondents expressed a preference to stay in a single room, only around one in ten of the whole sample thought that everyone should stay in single room accommodation. This may indicate that there was an acceptance that not everybody could or should stay in this type of accommodation, regardless of their preference.

2.86 There were no differences by gender, and while there were some fluctuations with age, all age groups placed the different groups in the same order of who should stay in
a single room. Those in the AB groups were much less likely than other groups, particularly those in the DE group, to say that those who were seriously ill should stay in single rooms (47% of ABs compared with 64% of DEs). However, as this was an unprompted question, this does not necessarily mean that they thought that people in these groups should not stay in single rooms.

2.87 There was some variation by area. Respondents in the West were considerably less likely to say that everybody should stay in a single room (5%) compared to those in the East/South and North (17% and 15% respectively). Respondents in the East/South were less likely to say that those who were seriously ill (40%) and those who were dying (19%) should stay in a single room compared to other areas (those who were seriously ill were mentioned by 69% of respondents in the West and 57% in the North and those who were dying by 33% in the West and 27% in the North).

2.88 Although there is no definitive explanation for these results without further research, we could speculate that they could reflect the fact that those in the East/South (as mentioned above) had slightly less experience of visiting people in hospital and therefore of which groups generally stay in different types of accommodation.

2.89 There were no real differences in the results of those who had stayed in or visited someone staying in hospital in the past five years and those who had not. However, those who had visited their children in hospital in the past years were more likely to say that children should stay in a single room compared to those who had not (12% of those who had compared with 3% of those who had not).

2.90 Figure 2.15 shows the groups that people thought should be accommodated in a multi-bedded ward or large ward.

**Figure 2.15 Who should stay in a multi-bedded ward?**

| People who are in hospital for a routine procedure | 27% |
| Everybody | 26% |
| Children | 15% |
| Teenagers and young adults | 12% |
| None/ Don't know | 17% |

2.91 Again, despite the immediate appearance of little agreement on which groups should stay in multi-bedded accommodation, severity of illness seems to have been used as a criteria to make this judgement. Twenty seven percent of the sample mentioned that people who are in hospital for a routine procedure should stay in this type of
accommodation. Fifteen percent of the sample thought that children should stay in multi-bedded wards and 12% mentioned teenagers and young adults. This could also be linked to severity of illness as people tend to think of these groups as ‘healthy’. Seventeen percent said that either no one should stay in this type of accommodation or that they did not know who should.

2.92 Twenty six percent of respondents thought that everybody should stay in multiple occupancy hospital accommodation. This is more than double the 11% of respondents who thought everybody should stay in single room accommodation.

2.93 It is worth noting that, as people believe that multi-bedded rooms are the most common type of hospital accommodation, it may be difficult for them to consider which groups should stay in this type of accommodation. In a sense, it is the default option. This could explain the low proportion of the sample mentioning each individual group, and the relatively high proportion saying that they don’t know who should stay in this type of accommodation.

2.94 Again, there were no differences by gender. Although there was some variation by age, all age groups placed the different groups in the same order of who should stay in a multi-bedded ward. The exception to this was those aged 65 and over who were more likely to say that everybody should stay in multi-bedded wards (mentioned by 31%).

2.95 Respondents in the North were more likely to say that everybody should stay in a multi-bedded ward (37%) compared to those in the East/South (25%) or those in the West (22%). Conversely those in the North were less likely to mention children (10%) or teenagers and young adults (5%) compared to those in other areas (children were mentioned by 15% in the West and 18% in the East/South; teenagers were mentioned by 12% in the West and 18% in the East/South). Respondents in the West were considerably more likely to say that those who were in hospital for a routine procedure should stay in a multi-bedded ward (37%) compared to those in the East/South (16%) or North (23%). This could be seen as complementary to the fact that respondents in the West, as described above, were most likely to think that single rooms should be reserved for those who are seriously ill or dying.

2.96 There were no real differences between the results of those who had stayed in or visited someone staying in hospital in the past five years and those who had not. However, those who had visited their children in hospital in the past five years were less likely to say that children should stay in a multi-bedded ward (14% of those who had visited their children compared with 22% of those who had not) and less likely to mention teenagers and young adults (9% compared with 15%).
CHAPTER THREE CONCLUSIONS

3.1 There was a high level of experience of hospitals as either a visitor or a patient. Thirty seven percent of the sample had spent at least one night as an in-patient in hospital in the past five years and 76% had visited someone staying in hospital in the past five years. Fewer respondents (9%) worked in or visited a hospital in the course of their work. Thus, the majority of the sample had some recent experience of hospital accommodation which would inform their responses to the survey.

3.2 This knowledge was reflected in responses when respondents were asked which type of accommodation was most common. The majority of respondents (60%) said that a smaller multi-bedded ward was the most common type, consistent with their greater experience of this type of accommodation. However, despite the fact that people had more experience of staying in and visiting single rooms compared with large multi-bedded wards, they did not believe that single rooms were more common. Thirty two percent of respondents thought that large multi-bedded wards were most common, while very few respondents thought that single rooms were the most common type of accommodation (5%).

3.3 When respondents were asked what type of accommodation they would prefer to stay in, the most common answer was a single room (41%) followed by a multi-bedded ward of up to six people (22%) and a large ward of more than six people (3%). It is important to note that those who expressed a preference for single room accommodation nevertheless represent less than half the sample. A further 27% said that they did not mind what sort of accommodation they stayed in, though their subsequent responses resembled those who preferred multi-bedded wards. Six percent of the sample said that their accommodation preference would depend on various factors, most commonly on what type of illness they were admitted with.

3.4 Preference was mediated by social class with the percentage of those expressing a preference for single room accommodation increasing with social grade (30% of those in the DE group would prefer this type of accommodation compared to 36% of C2s, 41% of C1s and 58% of ABs). ABC1s were much less likely to want to stay in a multi-bedded ward of up to six people. Less than one in five respondents in these groups preferred this type of accommodation compared with over one quarter of C2DEs.

3.5 Age also had some effect on preference, with those aged 34 and below being more likely to express a preference for staying in a single room and those aged 55 and above being more likely to express a preference for staying in a multi-bedded room.

3.6 Experience of staying in or visiting different types of hospital accommodation did not appear to have a large effect on what type of accommodation people would prefer to stay in. However, we must assume that these preferences are, in most cases, determined by people’s experience of hospital accommodation overall.

3.7 The most common reason given for preferring to stay in a single room was having or enjoying privacy (mentioned by 79% of those who expressed this preference). Of those who wished to stay in multi-bedded accommodation, having company or someone to talk to was the most important reason (mentioned by 81%).
In some ways opposite advantages and disadvantages exist for single and multi-occupancy accommodation and it may be hard to find a balance between these. The two main advantages of staying in a single room were considered to be having more privacy (mentioned by 75% of the sample) and less noise (34%). People thought that the main disadvantage would be feeling isolated or having less company (69%). The main perceived advantage of multi-bedded accommodation was having more company or not feeling isolated (78%). Two main disadvantages were mentioned: having less or no privacy (56%) or greater noise (46%).

The main factor in determining respondents’ opinions of the advantages and disadvantages of single and multiple occupancy accommodation was the type of accommodation they would personally prefer to stay in. Those who would prefer to stay in a single room saw greater advantages in this type of accommodation and greater disadvantages in multi-bedded accommodation. The opposite was true of those who expressed a preference for staying in a multi-bedded ward. Preference, as mentioned previously, was in turn linked to social class and age and as a result may change as an individual’s circumstances change.

As previously mentioned, those who said they did not mind what sort of accommodation they stayed in had a tendency to respond in a similar way to those who would prefer to stay in multi-bedded ward. We would speculate that this pattern could be connected to the fact that, as people believe multi-bedded wards to be the most common type of hospital accommodation, they expect to be accommodated in this type of ward and they therefore look for advantages and disadvantages that complement their expectations.

Despite the fact that the most commonly preferred type of accommodation was a single room (a preference expressed by 41% of the sample), there appeared to be acceptance of the fact that not everybody could stay in this type of accommodation, with only 11% of the sample saying that everyone should stay in single room accommodation. In comparison, 26% of respondents thought that everyone should stay in a multi-bedded ward. There were very few demographic differences related to this question, although those aged 65 and over were slightly more likely to think that everyone should stay in a multi-bedded ward (31%).

At first glance, there appeared to be little agreement overall on what sort of people should stay in single or multiple occupancy accommodation, suggesting that, in general, people have not given much consideration to this issue or do not have strong feelings about this topic. On closer inspection, severity of illness seems to be the criteria that people most commonly use in making a judgement about the type of accommodation that a person should stay in, with respondents tending to say that those who are more seriously ill should stay in a single room. This could also reflect a public perception of what actually does happen in hospitals today, rather than necessarily what they think should be the case.

In terms of single room accommodation, 57% thought that those who were seriously ill should stay in a single room, 27% mentioned that those who were dying, 24% mentioned those with an infectious disease and 18% said that people in intensive care should stay in a single room. In terms of multiple occupancy accommodation, 27% of
the sample thought that those who were in hospital for a routine procedure should stay in this type of accommodation, 15% mentioned children and 12% thought that teenagers and young adults should stay in multiple occupancy accommodation.
APPENDIX 1 QUESTIONNAIRE

As part of some research being undertaken by the Scottish Executive and the NHS we would now like you to think about in-patient accommodation in hospital. By in-patient accommodation we mean where you would stay if you spent one or more nights in hospital. This survey does not include residential/nursing home care.

Section 1 – to establish respondents’ experiences.

Q1) Do you work in, or in the course of your work do you regularly visit, one or more hospitals?
Yes work in hospital/Yes visit hospital in the course of work/No neither

Q2) In the past 5 years, have you ever been an in-patient in hospital either in:
READ OUT a single room/a multi-bed ward of up to 6 people/a large ward of more than 6 people /Not in past 5 years/Never/ Don’t know (ALLOW MULTICODE ON 1, 2, 3).

ASK ALL THOSE with CHILDREN UNDER 16 years of age

Q3) In the past 5 years, has your child or children been an in-patient in hospital either in:
READ OUT a single room/a multi-bed ward of up to 6 people/a large ward of more than 6 people/Not in past five years/Never/Don’t know (ALLOW MULTICODE ON 1, 2, 3).

Q4) In the past 5 years, have you visited someone staying as an in-patient in hospital either in:
READ OUT: a single room/a multi-bed ward of up to 6 people/a large ward of more than 6 people/Not in past 5 years/Never/Don’t know (ALLOW MULTICODE on 1, 2, 3)

ASK Q5 OF THOSE WHO HAVE STAYED IN HOSPITAL (CODES 1,2 OR 3 AT Q2)

Q5) Thinking about all the times you have stayed in hospital as an in-patient in the past five years, roughly how many nights would you say you had spent in hospital?
WRITE IN NUMBER
NOTE TO INTERVIEWERS ENCOURAGE RESPONDENT TO ESTIMATE EVEN IF THEY CAN’T GIVE AN ACCURATE ANSWER

ASK Q6 OF THOSE WHO HAVE VISITED THEIR CHILD(REN) OR OTHER PEOPLE IN HOSPITAL (CODES 1,2 OR 3 AT Q3 OR Q4)

Q6) Thinking about all the times you have visited someone who was staying hospital in the past five years, on how many different days would you say you had visited a person in hospital?
WRITE IN NUMBER
NOTE TO INTERVIEWERS ENCOURAGE RESPONDENT TO ESTIMATE EVEN IF THEY CAN’T GIVE AN ACCURATE ANSWER

Section 2 – to assess people’s preference to be accommodated in single versus multiple occupancy hospital accommodation

Q7) If you were admitted to hospital in the future would you prefer to stay in:
READ OUT. SINGLE CODE ONLY a single room/a multi-bedded room with up to 6 people/a large ward with more than 6 people/don’t mind/it depends/don’t know

OPEN ENDED
Q8) Why do you say that?
PROBE Why else?
Section 3 - to examine the perceived benefits and risks associated with accommodating people in single or multiple occupancy hospital accommodation

Q9) What would you say are the advantages to in-patients staying for one or more nights in a single room in hospital?
DO NOT PROMPT ANSWER. ALLOW MULTICODE more privacy/give you more dignity/less noisy/easier to talk to staff or family about your condition or other confidential matters/ easier for people to visit/ don’t disturb others/can choose what to watch on television/can choose whether to watch television /own bathroom/ staff can notice you more or have more time for you/better if patient is seriously ill or dying/single rooms cleaner or more modern
OTHER code & write in
DON’T KNOW/NONE
PROBE: What other advantages do single rooms have for patients?

Q10) And what would you say are the disadvantages to in-patients staying one or more nights in a single room in hospital?
DO NOT PROMPT. ALLOW MULTICODE feel isolated or lack of company/ too quiet or less going on/staff might forget about you or not check on you/would worry I was seriously ill or dying/there might be a delay in treatment/might not receive meals
OTHER code & write in
DON’T KNOW/NONE
PROBE: What other disadvantages do single rooms have for patients?

Q11) What would you say are the advantages for patients staying overnight in a multi-bedded room or large ward with others in hospital?
PRECODE. DO NOT PROMPT. ALLOW MULTICODE. more company or not isolated/ able to play with other children/staff not liable to forget you or more liable to check on you/staff more likely to notice you need help or possible delays in being treated/catering staff won’t forget about you at meal times
OTHER code & write in
DON’T KNOW/NONE
PROBE: What other advantages do rooms with a number of beds have for patients?

Q12) What would you say are the disadvantages for patients staying overnight in a multi-bedded room or large ward with others in hospital?
PRECODE. DO NOT PROMPT. ALLOW MULTICODE. less or no privacy/don’t allow you any dignity/noisier/not so easy to talk to staff or family about your condition or other confidential matters/ not so easy for (more) people to visit/ visitors might disturb others/can’t choose what to watch on television/can’t choose whether to watch television /sharing bathroom/not as clean/not as modern or more old-fashioned/ too many people/staff have too many people to deal with
OTHER code & write in
DON’T KNOW/NONE
PROBE: What other disadvantages do rooms with a number of beds have for patients?

Section 4 - to explore people’s opinions on which groups should/should not be accommodated in single occupancy hospital accommodation

Q13) Not all hospitals have single rooms for every patient. Thinking about people staying overnight in hospital, who do you think should generally stay in a single room?
PRECODE. DO NOT PROMPT. ALLOW MULTICODE: Children/Teenagers and young adults/Adults/Older people/Men/Women/ People who are seriously ill/People who are in hospital for a routine procedure/people in intensive care/people admitted in an
Q14) And still thinking about other people staying overnight in hospital, who do you think should generally stay in a multi-bed room or large ward with others?
PRECODE. DO NOT PROMPT. ALLOW MULTICODE: Children/Teenagers and young adults/Adults/Older people/Men/Women/ People who are seriously ill/People who are in hospital for a routine procedure/people in intensive care/people admitted in an emergency/people who are dying/ people who are mentally ill.
OTHER code & write in
DON’T KNOW/NONE

Section 5 – to examine the degree to which people are aware of the nature of hospital accommodation currently provided by NHS Scotland

Q15) I’m going to show you some pictures of different types of wards in NHS hospitals today
SHOW PICTURES OF DIFFERENT TYPES OF HOSPITAL ACCOMMODATION
Which of these types of wards do you think is the most common in hospitals nowadays?
SINGLE CODE ONLY A/B/C/don’t know
## APPENDIX 2  ALL ADVANTAGES AND DISADVANTAGES

### Table A2.1  Advantages of single room accommodation

Base: All respondents (990)

<table>
<thead>
<tr>
<th>Advantage</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>More privacy</td>
<td>75%</td>
</tr>
<tr>
<td>Less noisy</td>
<td>34%</td>
</tr>
<tr>
<td>Own bathroom</td>
<td>9%</td>
</tr>
<tr>
<td>Give you more dignity</td>
<td>9%</td>
</tr>
<tr>
<td>Easier to talk to staff or family about your condition or other confidential matters</td>
<td>7%</td>
</tr>
<tr>
<td>Don't disturb others</td>
<td>7%</td>
</tr>
<tr>
<td>Easier for people to visit</td>
<td>6%</td>
</tr>
<tr>
<td>Can choose what to watch on television</td>
<td>6%</td>
</tr>
<tr>
<td>Better if patient is seriously ill or dying</td>
<td>5%</td>
</tr>
<tr>
<td>Can choose whether to watch television</td>
<td>4%</td>
</tr>
<tr>
<td>Staff can notice you more or have more time for you</td>
<td>3%</td>
</tr>
<tr>
<td>Single rooms cleaner or more modern</td>
<td>2%</td>
</tr>
<tr>
<td>More rest/more relaxing/ peace and quiet</td>
<td>2%</td>
</tr>
<tr>
<td>Less chance of infection</td>
<td>2%</td>
</tr>
<tr>
<td>Being able to sleep better</td>
<td>1%</td>
</tr>
<tr>
<td>Depends on illness/ person</td>
<td>1%</td>
</tr>
<tr>
<td>Speeds up recovery</td>
<td>*</td>
</tr>
<tr>
<td>Feel more secure</td>
<td>*</td>
</tr>
<tr>
<td>Others</td>
<td>1%</td>
</tr>
<tr>
<td>None/Don't know</td>
<td>11%</td>
</tr>
</tbody>
</table>
### Table A2.2 Disadvantages to single room accommodation

Base: All respondents (990)

<table>
<thead>
<tr>
<th>Disadvantage</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feel isolated or lack of company</td>
<td>69%</td>
</tr>
<tr>
<td>Too quiet or less going on</td>
<td>13%</td>
</tr>
<tr>
<td>Staff might forget about you or not check on you</td>
<td>12%</td>
</tr>
<tr>
<td>Would worry I was seriously ill or dying</td>
<td>2%</td>
</tr>
<tr>
<td>There might be a delay in treatment</td>
<td>2%</td>
</tr>
<tr>
<td>Might not receive meals</td>
<td>1%</td>
</tr>
<tr>
<td>Would get bored</td>
<td>1%</td>
</tr>
<tr>
<td>Costly/costs more to run</td>
<td>1%</td>
</tr>
<tr>
<td>More work for the staff/ nurses</td>
<td>1%</td>
</tr>
<tr>
<td>Depends what's wrong with the patient</td>
<td>*</td>
</tr>
<tr>
<td>Others</td>
<td>1%</td>
</tr>
<tr>
<td>None</td>
<td>19%</td>
</tr>
</tbody>
</table>
Table A2.3  Advantages to multi-bedded ward accommodation
Base: All respondents (990)

<table>
<thead>
<tr>
<th>Advantage</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>More company or not isolated</td>
<td>78%</td>
</tr>
<tr>
<td>Staff more likely to notice you need help or possible delays in being treated</td>
<td>12%</td>
</tr>
<tr>
<td>Staff not liable to forget you or more liable to check on you</td>
<td>10%</td>
</tr>
<tr>
<td>Able to play with other children</td>
<td>2%</td>
</tr>
<tr>
<td>Catering staff won't forget about you at meal times</td>
<td>1%</td>
</tr>
<tr>
<td>You could support/help other people</td>
<td>1%</td>
</tr>
<tr>
<td>More activity/leveler</td>
<td>1%</td>
</tr>
<tr>
<td>Other patients could raise the alarm if you needed attention</td>
<td>1%</td>
</tr>
<tr>
<td>Easier for staff/help staff keep track of people</td>
<td>1%</td>
</tr>
<tr>
<td>More beds available</td>
<td>*</td>
</tr>
<tr>
<td>Cost/cheaper</td>
<td>*</td>
</tr>
<tr>
<td>Realise people are worse than yourself</td>
<td>*</td>
</tr>
<tr>
<td>Depends on how ill you are</td>
<td>*</td>
</tr>
<tr>
<td>Others</td>
<td>1%</td>
</tr>
<tr>
<td>None/Prefer to be on my own/Don't know</td>
<td>14%</td>
</tr>
</tbody>
</table>
### Table A2.4  Disadvantages to multi-bedded ward accommodation

Base: All respondents (990)

<table>
<thead>
<tr>
<th>Disadvantage</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less or no privacy</td>
<td>56%</td>
</tr>
<tr>
<td>Noisier</td>
<td>48%</td>
</tr>
<tr>
<td>Sharing bathroom</td>
<td>8%</td>
</tr>
<tr>
<td>Don't allow you any dignity</td>
<td>7%</td>
</tr>
<tr>
<td>Visitors might disturb others</td>
<td>7%</td>
</tr>
<tr>
<td>Not so easy to talk to staff or family about your condition or other confidential matters</td>
<td>4%</td>
</tr>
<tr>
<td>Not as clean</td>
<td>4%</td>
</tr>
<tr>
<td>Too many people</td>
<td>4%</td>
</tr>
<tr>
<td>Not so easy for (more) people to visit</td>
<td>3%</td>
</tr>
<tr>
<td>Can't choose whether to watch television</td>
<td>3%</td>
</tr>
<tr>
<td>Can't choose what to watch on television</td>
<td>2%</td>
</tr>
<tr>
<td>Staff have too many people to deal with</td>
<td>2%</td>
</tr>
<tr>
<td>Bigger chance of infection</td>
<td>1%</td>
</tr>
<tr>
<td>May not like the people you're sharing with i.e. junkies/violent people</td>
<td>1%</td>
</tr>
<tr>
<td>It's disturbing to see people ill/ die beside you</td>
<td>*</td>
</tr>
<tr>
<td>Not as modern or more old-fashioned</td>
<td>*</td>
</tr>
<tr>
<td>Depends if it's a mixed ward/wouldn't want to stay in a mixed ward</td>
<td>*</td>
</tr>
<tr>
<td>Others</td>
<td>*</td>
</tr>
<tr>
<td>None</td>
<td>15%</td>
</tr>
</tbody>
</table>
APPENDIX 3 PHOTO PROMPTS

Figure A3.1 A smaller multi-bedded ward

Figure A3.2 A larger multi-bedded ward
Figure A3.3  A single room
ANNEX 8: Financial Impact Paper
Health Facilities Scotland

Issues raised by Health Facilities Scotland Stakeholder Groups in relation to the Provision of Single Rooms

Individual room controls on Heating, lighting and ventilation, which will add slightly to the cost of the installation and maintenance. This might, however, mean better environmental conditions and a greater feeling of control for the patient.

Sanitary facilities will be more numerous, increasing installation costs and maintenance costs, particularly to manage the Legionella risk.

Services such as medical gasses and electricity supplies will likely be marginally more expensive to install and although the maintenance workload may increase slightly, this might be offset by better access.

With proper design, the patient environment is likely to be enhanced, with better natural light, views, lower ambient noise levels and some degree of individual control of room conditions.

More definite separation of patient and work areas, combined with appropriate controls might allow for different heating strategies in each area with consequent energy savings.

The key determinants of the relative costs of installation and maintenance in single room installations will be design strategy and design quality, eg four bed bays will require ventilation but single rooms may not, also individual room controls for heating and ventilation can be avoided but probably shouldn’t. This will depend on the roles of the various services, ie, ventilation for temperature control or fresh air supply.

In terms of designed capacity, heating and lighting costs will be proportional to floor area; however, in practice the impact of increased individual control might be as significant. This cannot be predicted generically as it will depend on the quality of the design and unknown constraints such as building location and orientation.

Designing into existing facilities might be difficult.

Labour intensive for Soft FM services, e.g. cleaning, might have reductions in cost in relation to issues such as rails.

Potential lack of general observation of patient’s well being, particularly in relation to eating.

Potential increase in utility costs as a result of increased lighting, ventilation and facilities such as showers.

Higher level of furniture and fitting costs; these are considered to be marginal.
Cost Indications

The above costs could be viewed as marginal. However, looking at examples published by DOH Estates and Facilities, the cost of additional space, cleaning and nursing could range from ½% to 1½/2% of a typical revenue budget. When considered in relation to cost of FCEs, the figures range from 0½% to 2½%.

Work carried out by The Property and Environment Forum (through W S Atkins) would indicate an increase in revenue costs between 1.4% - 2.7%, depending on size of the hospital.

Typical capital cost increases are 1.6% to 3.1%, depending on the size of the hospital.

*Overall, the Scottish Engineering Technical Advisory Group (SETAG) took the view that, in developing a new facility, the implications of the percentage of single rooms chosen would have less impact on construction and maintenance costs than other decisions routinely made in the design and planning process, such as the decision to design out heat gains, rather than install air conditioning. There was also optimism that individual control of environmental conditions would bring a significant improvement in patient satisfaction.*