Environments for care at end of life: evaluation of The King’s Fund Enhancing the Healing Environment Programme

Final Report
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INTRODUCTION

Enhancing the Healing Environment (EHE) was launched by The King’s Fund in 2000. From its initial focus on acute NHS trusts in London, the EHE Programme has been rolled out to mental health and primary care trusts, with a recent focus in 2010 on dementia care and prisons. These previous programmes (1, 2) and the publication of the NHS Estates report, *A Place to Die with Dignity: Creating a supportive environment* (3), highlighted a particular need to improve the physical environments where people are dying and where the bereaved and deceased are cared for. In 2008, The King’s Fund was commissioned and funded by the Department of Health to extend the 2006 EHE pilot programme on Environments for Care at End of Life (ECEL) from eight sites (4) to a further twenty sites.

The King’s Fund supported the individual projects in two ways: firstly, through the provision of a development programme for an NHS trust team and, secondly, by approving each team’s project for Department of Health capital funding. Each team was required to undertake a project to change the physical environment in order to directly and indirectly improve care delivery. Teams were multidisciplinary and clinically led, comprising of five members typically including estates and facilities staff, faith leaders, service user representatives and an arts co-ordinator.

The EHE programme aims to support and guide NHS trust teams in enhancing the environments in which they deliver care. The programme as a whole is designed to embody:

- clinical leadership and multidisciplinary teamworking
- creative solutions and encourage high-quality design
- projects as exemplars of good design
- an individual’s personal development
- co-operation and engagement with service users and the public.

The Department of Health invited applications from NHS trusts to join the programme, which resulted in approximately three applications for each available place. Following this competitive process, fifteen acute NHS trusts, two mental health NHS trusts, two primary care NHS trusts and one prison service undertook projects within the programme. Final approvals were given to their proposed renovation projects in January 2009. Building works for most of the projects took place over the summer of 2009, with 13 of the 20 projects completing by the end of 2009. Each project was supported by £30,000 from the Department of Health, with a minimum £10,000 investment from the local trust. Additional funding from other sources was sought by all of the teams.

BACKGROUND

The challenge for each of the project teams was to synthesise the increasing body of knowledge focusing on the relationship between environmental design and well-being (5, 6) with the realistic practical requirements of a functional space, health and safety codes, and funding limitations. The design of hospitals presents a particular architectural challenge. As Finch writes ‘the architect must create a building primarily for people, but one in which form follows medical function in a variety of very particular ways. A key task is to ensure the efficiency of service is enhanced by the building,’ (7 p44). However, unlike most health care architectural initiatives, the Enhancing the Healing Environment Programme strives to enable the users of the environment to directly influence the
design and implementation of a new physical space. The term ‘users’, in this context, includes both those providing and receiving care.

There is an increasing body of literature recognising and highlighting the impact of design (8, 9) as well as the impact of the environment on health and work-place outcomes (10–17). It is argued that good design adds value culturally, economically, environmentally and socially, by increasing quality, image and the use of space (8). Referring to Florence Nightingale’s emphasis on daylight and fresh air to aid recuperation, Macmillan illustrates the need to understand the impact of design on the environment, recognising that ‘good design can produce significant benefits and the absence of good design results in disbenefits,’ (8 p258).

In the UK, the development of the Commission for Architecture and the Built Environment (CABE) influenced the government to launch a Better Public Buildings campaign, which had a substantial impact on architectural interest in design. Hence there is increasing recognition that not only new buildings but also the renovation and refurbishment of existing ones are a vital part of the economy and promote ‘health, productivity, neighbourliness and civic pride’ (8 p259).

Guidance for the design of UK hospitals is developed and issued in the form of Health Building Notes (HBNs) from the former Department of Health and Social Security’s ergonomic database established in the 1980s (18). The database aimed to promote relatively standardised working conditions and encourage an understanding of the relationship between the user and working environment in the design of hospitals (18). A study by Hignett and Lu (18) explored how hospital designers have used the HBN guidance and identified a conflict between the desire for standardised design and a fear of diminished design freedom.

**AIMS OF THE EVALUATION**

This evaluation was commissioned by The King’s Fund and the Department of Health in September 2008. The aims of this evaluation were to:

- assess the process of change undertaken in the participating projects
- explore the impact the projects have on the delivery of end-of-life care
- explore the impact on those using the physical environment
- examine what has been learnt about the way attitudes to death and dying are influenced and changed by the physical environment.
EVALUATION METHODS

APPROACH
This was a pragmatic evaluation that took account of the need to study the programme longitudinally using mixed-method case studies. Both quantitative and qualitative methods were used to measure the impact of the projects and to gain an in-depth understanding of what facilitates and prevents their success.

A formal experimental design methodology could not be used in this study because of the complex nature of the projects, their individual aims and the users targeted. Differences evolve not only between projects but within projects, therefore a longitudinal element was necessary to capture change over time. In-depth case studies were undertaken at six selected sites with fieldwork occurring at two phases: before and after the renovation. Focus groups (at phase one) and individual interviews (at phase two) with the case study teams provided in-depth data. These were complemented at both phases by observational data at each site, the completion of the AEDET (19) and ASPECT (20) tools and, for those projects focusing on mortuary environments, a self-complete questionnaire was used to gain the views of those who accessed and experienced these facilities as part of their work. At phase two, an architectural analysis was carried out at the sites where projects were completed within the evaluation period. The case study sites allowed us to examine the process and outcomes within the context of the wider programme (n=20 projects).

CASE STUDIES
Case studies can be seen as an approach to research rather than a particular method (21, 22). Each case helps to build a wider picture of the development of the projects and utilisation of the programme from multiple perspectives. Multiple sources of evidence are used to identify the many facets that may affect a particular case, hence this approach recognises that in many cases a ‘multiplicity of factors impinge on care delivery’ (23) in nursing practice, making case studies particularly viable for understanding the complexity of care situations. A key use for case studies is to gather data in the form of the ‘descriptions and interpretations of others’ (24), in this instance through focus groups and individual interviews with team members from the identified cases. The longitudinal design used two time points: phase one, before renovations and phase two after the point at which building work was anticipated to be completed. Case study sites were selected by the Department of Health/King’s Fund Programme Steering Group to reflect a particular interest in mortuary viewing facilities and centralised bereavement services. The prison was a unique site and offered an insight into a future EHE programme. In-depth case studies were therefore undertaken at six project sites: the remodelling and renovation of three mortuary viewing facilities;¹ two centralised bereavement services;² and a palliative care facility in a prison.³

¹ Newham University Hospital NHS Trust; North Bristol NHS Trust; Salisbury NHS Foundation Trust.  
² Cambridge University Hospitals NHS Foundation Trust; York Hospitals NHS Foundation Trust.  
³ HMP Albany, Isle of Wight, please note that since the start of this evaluation all three prisons on the Isle of Wight merged to form HMP Isle of Wight.
**Mapping**

In this study documentary sources were used alongside other methods of data collection (25) as a less obtrusive way of gaining data (26) from all 20 teams. This research incorporated the use of documents in the form of the project progress reports regularly submitted to the programme. These are not public records but are created and used for a specific purpose. It should be recognised that what was recorded in progress reports is necessarily selective, which places limitations on the kinds of questions that can be asked of the dataset (27). This study goes some way to address this issue by undertaking case studies at six selected sites to investigate the process around the production of the reports rather than looking at the documents alone.

**Sample**

Our sample for the evaluation occurred at 3 levels: projects within the programme (n=20 projects), case study sites (n=6 projects) and team members within each case study site (n=30). The progress of each of the 20 project teams was evaluated using the mapping of secondary data provided by the teams to The King’s Fund. In order to undertake the case study element of the evaluation, each of the six ECEL project team members took part in the research. Each team was approached by the researcher to answer any questions and arrange a suitable time and date for the initial focus group. Individual team members were then recruited through a process of informed consent, where each participant was asked to sign a consent form before the phase one focus group and, again, before the phase two individual interview.

For the self-completion questionnaire (see Appendix A) of staff using the mortuary, potential participants were identified by the mortuary manager as a ‘staff user’ and asked to complete the questionnaire. Consent was considered to have been given if they completed and returned the questionnaire.

**Data Collection**

<table>
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<th>Data source</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Aims addressed¹</th>
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</tr>
<tr>
<td>Interviews</td>
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<tr>
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<td>✓</td>
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<td></td>
</tr>
<tr>
<td>Architectural assessments</td>
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¹Aims: 1) to assess the process of change undertaken in the participating projects; 2) to explore the impact the projects have on the delivery of end-of-life care; 3) to explore the impact on those using the physical environment; 4) to examine what has been learnt about the way attitudes to death and dying are influenced and changed by the physical environment.
Data were generated in phase one before the renovation (April-June 2009) and phase two after the anticipated completion of the work (Dec-May 2010) (see summary Table 1).

**PROJECT REPORTS**
This element of the evaluation synthesised data already available from all 20 sites. Project reports from all 20 project sites were used to provide context to the study of the 6 projects chosen as case studies. Progress reports were requested by The King’s Fund initially every two to four months between June 2008 and July 2009 with a sixth and final completion report for January 2010. For those projects which were not completed by the end of the evaluation period (May 2010), an edited update report was submitted. The reports allowed us to compare case study projects with non-case study projects; track progress and slippage within projects; and identify the frequency and timing of reported problems. These documents were obtained directly from The King’s Fund and allowed us to chart the progress and development of the projects without placing an additional burden on the teams.

**FOCUS GROUPS**
Focus groups took place at each of the six project sites during phase one (before commencing building works). A question guide was used to provide some structure to the discussion but areas of importance were raised by the participants and a loose structure allowed for these to be explored. Focus groups were selected as a method of data collection as it was felt that it was important for the teams to maintain their co-working status and to express their views together at this stage.

The groups were predominately made up of the five team members from each site. However, at one site, one team member was unable to attend and, at another, two team members were replaced by members of their wider team closely involved in the project. At one site, a team member was interviewed individually. At a further two sites, one of the team members was unable to participate for the full duration of the focus group. However, a total of 29 people were involved in this data collection phase (Table 2). Focus groups lasted between 49-84 minutes. Ground rules were negotiated with participants before commencing the discussion to establish confidentiality and fair-turn taking within the group. Two digital recorders were used for each group to provide backup and to ensure that everyone in the group was heard.

<table>
<thead>
<tr>
<th>Site</th>
<th>No. in focus group</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>1 unable to attend, individual interview conducted</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>Full team, 1 partial participation</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>Full team</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>1 unable to attend</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>3 team members (one partial participation) and 2 from wider team</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>Full team</td>
</tr>
</tbody>
</table>
Each of the teams were made up of staff from a range of professions within NHS trusts and a prison and it should be acknowledged that this may have affected the nature of the discussion or individuals’ willingness to contribute (28). However, the teams had been working together for at least a year when the focus groups took place.

**INTerviews**

Individual interviews with each team member at the six case study sites took place at phase two (after the project and building works were expected to be completed). Individual interviews at this stage were to allow the team members to express their views openly and to reflect on the teamworking process as well as the renovation. These were arranged with the participant to take place at their place of work at a suitable time (one was conducted by telephone) and took between 22 and 53 minutes. At one site, the five team members were interviewed in two groups in order to be flexible to their time constraints. At another site, an additional interview was undertaken with a member of the wider team who had also participated in the previous focus group. The narrative accounts from the focus groups and interviews were used to gain an understanding of how:

- projects were conceptualised, designed, implemented and have been used by staff, patients and carers
- projects impacted on the culture of the wider care environment and influenced behavioural and attitudinal responses to death and dying.

**AEDET and ASPECT**

To measure how the case study teams perceive (i) a change in the building quality, impact and functionality and (ii) how the environment affects both their own work and the experience of users, AEDET (Achieving Excellence Design Evaluation Toolkit) (19) and ASPECT (A Staff and Patient Environment Calibration Toolkit) (20) were used respectively at both time points.

Both tools have been developed especially to evaluate the quality of design in health care buildings. They provide a profile that can indicate the strengths and weaknesses of an existing or future design. While AEDET (19) focuses on key areas of impact, build quality and functionality, ASPECT (20) looks more specifically at the levels of satisfaction shown by staff and service users.

These tools were used in a consensus-reaching exercise undertaken by each team during phase one and repeated in phase two. The team members were brought together to discuss and achieve a consensus on the statements in the toolkit. Statements could then also be weighted using a scoring layer (2–high, 1–normal and 0–zero) which allowed the group to prioritise particular elements of the tool. At phase one, this was done with a member of the evaluation team to ensure that participants understood the process. At phase two, teams completed the tools without further guidance.

There is a dearth of validated measures on how the physical environment affects health care users and providers. Criticism of these toolkits highlights their focus on performance indicators and restrictive design which requires complex judgements to be reduced to single ‘scores’ (10, 11). However, the tools are not promoted as universally applicable but recommend adaptation by individual NHS trusts (10, 18) in order to be relevant to their design philosophy and vision. Both tools are used extensively throughout the NHS, though more commonly for larger-scale projects and new hospital buildings rather than renovations of existing spaces (10).
STAFF MORTUARY VIEWING QUESTIONNAIRE
The questionnaire (Appendix A) was distributed at the three sites focusing on mortuary viewing facilities. Respondents were those staff accessing and using the mortuary but not part of the project team. This questionnaire allowed us to gain a broader range of opinions on the quality of design of the environment for use by both staff and service users. The questionnaire was distributed via the mortuary managers to porters, nursing staff, technicians, bereavement officers and any other staff who accessed the mortuary area during the study period. They were then returned directly to the research team using pre-paid envelopes.

The questionnaire took the form of a series of semantic differentials. This is a psychological measure of the connective meaning between objects (29). This measure has been used in many environments including the exploration of the impact of buildings on people (30). The semantic differential is a polarity profile which permits analysis of competing opinions.

Investigations took place at each relevant site to establish the number and type of staff users at each mortuary. In order to develop the semantic differential questionnaire for mortuary staff, word pairings were adapted from previously developed questionnaires used for architectural evaluation purposes (31). After a brief pilot of the questionnaire, it was found that there was a lack of understanding of some of the word pairs and these were removed. One final additional question was added to the questionnaire for its redistribution in phase two to establish whether the respondent was a first-time mortuary user or had seen the mortuary before its renovation. A request on the questionnaire for date of birth also allowed the research team to identify any respondents who had completed the questionnaire at both time points.

ARCHITECTURAL ASSESSMENTS
Architectural assessments were undertaken during a visit to each case study site on completion of each project and following a period of use. This initially involved four of the six sites, as two had yet to complete (York and HMP Albany). However, at the request of The King’s Fund, an architectural assessment was conducted at York after the evaluation period. The architect visited the case study sites only after completion (and public opening) and did not have any contact with the programme itself, which provided a more objective basis on which to conduct these architectural analyses. However, as this was a ‘one-off’ visit to each completed project site, this area of the evaluation was not able to assess the extent to which the environment had changed. Projects were solely assessed on the visual impact on the day of the architectural assessment and we were not able to take account of any final adjustments that teams needed to make to complete the overall effect. The assessment provides an architectural understanding of ‘how it works’ and ‘how it feels’.

Assessments considered the functional organisation and operation of the facility from a user’s perspective, such as how ‘front of house’ staff, users and members of the public access and use the spaces. This involved a brief functional evaluation of the following elements: access, layout, navigation, signage, circulation, size (dimensions, clearances), lighting and environmental conditions (temperature, humidity, air movement). A broader evaluation of the architectural quality and character of the spaces, both conscious and sub-conscious, in terms of size scale, orientation and views in/out, décor, lighting, materials, acoustics, and environmental conditions also took place.
ANALYSIS

PROJECT REPORTS
The collation of the progress reports provided us with six time points for each of the twenty project sites. These documents were analysed textually using a framework analysis and an Access database to help store and navigate this data. This allowed us to explore the data both across and within project sites by looking at projects in context as well as targeting specific aspects pertinent to all projects.

FOCUS GROUPS AND INTERVIEWS
The qualitative data from the face-to-face focus groups and interviews with case study team members was analysed thematically taking account of the case study structure of the data. As the programme is working to a set of pre-defined principles (for example, clinical leadership, creative design and public engagement) a framework analysis (27) was used. This is a method that is particularly useful for applied evaluative research. It can be designed to meet specific information needs yet remains true to the accounts of the interviewees.

AEDET AND ASPECT
AEDET and ASPECT ratings were compared before and after the change in the physical environment at each of the completed case study sites. It was not possible to apply these tools to the prison garden and the project team from York as these teams had not completed their project at the time of phase two data collection.

STAFF MORTUARY VIEWING QUESTIONNAIRE
Thirty semantic differential pairs were included in the analysis based on their perceived relevance by the case study teams. Pairs were scored on a scale of one to six with higher scores indicating a more positive response. Change scores were calculated by subtracting mean phase one scores from mean phase two scores at each of the three sites (North Bristol, Newham and Salisbury).

ARCHITECTURAL ASSESSMENTS
For each completed case study site, the architectural assessments utilised observational information by an academic architectural critic focusing on issues of general interest to consider the interaction between the functional and aesthetic qualities of the spaces. This information was then used to generate a report on ‘how it works’ and ‘how it feels’.

ETHICAL ISSUES
Both generic and specific ethical issues were addressed in this evaluation. We were mindful not to overburden the project teams at a time when they were under great pressure to deliver the projects and conduct their own local evaluations. Therefore we worked closely with The King’s Fund to minimise what was asked of the team members. Evaluations can be threatening for those responsible for the service being evaluated, particularly if it is perceived that critical judgements are being made. It was made clear to project teams that our focus was the programme itself and how studying individual cases could illuminate the strengths and limitations of the programme. Consent processes were designed for each stage of the evaluation and were appropriate for the method of data collection. Teams arranged tours of the sites only when facilities were not in use, so as not to cause any disruption or distress. This evaluation was categorised as a service evaluation by the
National Research Ethics Service, thereby not requiring a formal application to the relevant ethics committees.

Quotations from team members have been anonymised and we would request that any recognition of individuals or teams be kept confidential. For these purposes only the data collection phase and source has been identified, for example: report, phase one focus group, or phase two interview.
FINDINGS: MAPPING

We present findings from the mapping of: (i) the five progress reports; (ii) the final reports for projects completed before May 2010 (n=13); and (iii) a modified progress report for the teams who had not completed by the end of May 2010. The deadlines for the five progress reports were in June 2008, September 2008, January 2009, May 2009 and July 2009. The heterogeneity of the nature and scale of the individual projects meant that questions posed to teams in the report templates had to be open-ended. Therefore, it should not be inferred that teams who do not report on particular aspects of their project do not experience similar issues to those that do. All that can be inferred from this exercise is that certain issues are considered worthy of report by some teams.

INDIVIDUAL PROJECT EVALUATION

The level of detail provided by the teams in their progress reports on how they evaluated or intended to evaluate their projects was sketchy and variable. Only three teams explicitly stated the kind of outcomes where they hoped to see improvement. However, a further ten, by reporting that utilisation data would be used in their own evaluations, implicitly suggested that the increased uptake of the particular service they were targeting would be evidence of a positive outcome. Surveys were generally the preferred method for evaluating the projects: 17 of the 20 teams stated that they intended to use surveys (Table 3). Assessing the change in the number of complaints was mentioned as a possible method of evaluation by 11 teams, but this was in direct response to the question by The King’s Fund in the first progress report template. Some doubts were expressed as to the feasibility of accessing complaints data at the level of service relevant to the projects.

<table>
<thead>
<tr>
<th>Proposed evaluation method</th>
<th>Teams using as part of evaluation (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>17</td>
</tr>
<tr>
<td>Number of comments</td>
<td>11</td>
</tr>
<tr>
<td>Number of complaints</td>
<td>11</td>
</tr>
<tr>
<td>Utilisation data</td>
<td>10</td>
</tr>
<tr>
<td>Focus groups</td>
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</tr>
<tr>
<td>Qualitative interviews</td>
<td>4</td>
</tr>
<tr>
<td>Stakeholder event</td>
<td>4</td>
</tr>
<tr>
<td>Staff interviews</td>
<td>2</td>
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</tbody>
</table>

For the 13 projects completed by the end of the evaluation period, the team leaders were asked to comment on their local evaluations. It was too early to report any findings from structured evaluations, but many stated that they would be able to do this in the future. For one, the local evaluation was forming part of an MSc project by a team member, while another team was looking at ways to link data on hospital deaths to users of bereavement services in order to look at how, and by whom, their service was being accessed. However, many reports included anecdotal evidence of
user reaction to their completed projects. The process of collecting visitor comments that had commenced at the start of the project, continued after the opening of the new spaces and staff were struck by the positive responses recorded by relatives. Although complaints were relatively rare prior to the projects commencing, positive comments or ‘compliments’ were now common in a way that they had not been before. Where suggestions were made by service or staff users, teams were keen to respond because of the pride that they took in their areas. For example, at a newly opened relatives’ room staff responded promptly to the suggestion of a need to provide relatives with a fridge. Many comments relating to individual projects, regardless of the type of project, related to the sense of peace that users experienced, often in marked contrast to the wider hospital in which the facility was based. This was an experience that many of the team members had explicitly hoped to provide for bereaved family and friends.

SUPPORT

All teams reported that they received support from a variety of sources. All felt supported by their NHS trust sponsors but the nature of that support could be defined as either proactive (for 8 teams) or reactive (for the remaining 12 teams). Examples of the former included acting as ‘champions’ for the project and providing encouragement, while in the latter case, sponsors were seen as ways to ‘unblock’ the process when hurdles were encountered. Apart from NHS trust sponsors, many of the teams referred to the importance of support from allies made within the NHS trust that could assist with their project because of either their seniority or their key position within the trust.

CHALLENGES ENCOUNTERED

Table 4 describes the frequency of ‘reported challenges’ from each of the reports submitted to The King’s Fund by the project team up to the end of the programme evaluation. Overall, ‘securing resources’ was the most frequently reported challenge (by 19 of the teams), followed by time constraints (n=15), location problems (n=12), building issues (n=11) and the attitudes of others (n=11). As expected, the nature of challenges altered according to the timing of the report. The dominant issue at the time of the fourth report was ‘resources’. This was mentioned by only three teams in the fifth report but by eleven at the time of the final report. This suggests that once agreement for funding is secured there is a temporary respite from the worries of funding, but this issue resurfaces as the work takes shape and additional costs are identified or original budgets spiral. A similar, though less pronounced pattern is noted in relation to time and the physical location of the project. It would seem that there are clear milestones in the life of a project which occur at the point that the nature and design of the project is agreed and then on completion of the building phase, with many challenges typically occurring just prior to these points. Challenges presented by working in a team appeared to peak in the middle of the period covered by the first five progress reports. Understandably, problems with building contractors and, to a lesser extent, architects and designers were identified as important challenges in the final report.
Table 4: Types of challenges reported in progress and final reports

<table>
<thead>
<tr>
<th></th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>Five</th>
<th>Final</th>
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<td>13</td>
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Completion

Of the thirteen projects that completed before the end of the evaluation period (May 2010), the first was completed in July 2009 and the last in December 2009. Estimated completion dates for the remaining seven projects were between July and September 2010, although all projects were optimistically hoping to complete by November 2009 at the time of the fifth progress report (July 2009). The majority of problems encountered by teams yet to complete their projects were those that could not have been anticipated earlier in the process. Securing agreement to undertake the projects or supply additional funding held up two projects. For one, the agreement about the specific location never materialised necessitating a complete change of project and site, and for the other, agreement in relation to funding was made, in principle, but did not subsequently translate to agreement in practice. The harsh weather during the winter of 2009 and 2010 affected those garden projects that had been delayed by other factors before December 2009. One of the teams cited the problem of a key member leaving relatively late in the programme. Three of the teams which had not yet completed had disagreements with designers or architects, in one instance the building company had gone into liquidation. In another team, the project itself had uncovered a hitherto unknown structural problem that required a substantial revision of the design. One of the teams reported difficulties in finding space in the wider hospital system to temporarily accommodate the service while building work was being carried out. For one project, wider capital projects across the NHS trust meant that the project had to be incorporated within a larger scheme and therefore within the larger scheme’s time frame.
The median estimated total cost for the projects increased from £45,000 reported in the first progress report to £117,000 at the most recent report (Table 5) with a total estimated cost across the projects of £2.6 million. Estimates in the most recent report were up to four times greater than those in the first report. This predominantly represents changes in scope of the project and success in tying the project in with other NHS trust capital schemes rather than poor planning at the outset. Increases in cost estimates tended to be less dramatic in the later period covered by the reports. Between the fourth and fifth progress reports changes varied between a decrease of 36 per cent and an increase of 32 per cent, although between the fifth and final report the scale of the revision in cost estimate was between a decrease of 51 per cent and an increase of 113 per cent.

Greater increases in cost were observed later in the programme for those projects yet to complete. The six case studies chosen for the evaluation were representative of the cost and scale of all twenty projects. The most recent estimate of total project cost for each case study site was between £50,800 and £365,000. Funding of £30,000 from the Department of Health and the agreed NHS trust minimum of £10,000 typically accounted for a relatively small proportion of funding spent on each project and was used as leverage by teams to secure additional monies from a number of sources. These included the NHS trust itself (12 projects), trust-related charities (11 projects), external charitable funds (3 projects), and own fundraising activities (3 projects).

### Table 5: Original and updated estimates of total cost of projects

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FINDINGS: MORTUARY VIEWING FACILITIES

This section focuses on the three case study sites that renovated mortuary viewing facilities. A description of each site along with the architectural assessment of the completed project is presented. The architectural assessments were only undertaken following completion of each project and, as such, provide a snapshot view. To provide some longitudinal perspective, photographs of the sites taken before the renovations are shown. This section also includes data from the questionnaire completed by those using the facilities as part of their work. Recommendations are made for consideration in future revisions of the relevant health building note (HBN 20) (32).

NORTH BRISTOL – DESCRIPTION

North Bristol NHS Trust provides general and specialist care across two hospital sites for a population of more than half a million patients each year. Each of the sites has a mortuary which provides viewing facilities for the newly bereaved. The post-mortem functions at each site were relocated to a large regional facility at the start of this project, but staff were keen to keep viewing facilities on site at both hospitals. Both mortuary viewing areas at North Bristol were in a state of disrepair. At Frenchay, facilities were housed in a rundown timber structure with poor access (Fig 1). At Southmead, the mortuary was located on a busy road and had no private outdoor space (Fig 2). Inside both facilities were dated and dark (see Figures 3 and 4). The team aimed to provide updated, comfortable spaces for the newly bereaved at both sites. Outdoor garden areas, waiting areas and refreshment facilities were also incorporated, so that families and friends did not feel rushed and were allowed time away from the body during their visit. The project team included representatives from both mortuary facilities and the estates department, with senior input from the head of clinical governance. It was led by the trust’s end-of-life care co-ordinator. Although one of the anatomical pathology technicians took up a new post, the project team remained the same throughout.
1) 'HOW IT WORKS'

The new mortuary viewing facilities at Frenchay Hospital provide a suite of two public spaces with separate external access and a dedicated parking space. Marked ‘Viewing Room’ on the hospital map, the facility is easily located near the main Accident and Emergency entrance. Access to the suite for families is normally by appointment only and a member of staff is usually waiting outside at the parking bay to receive visitors. The entrance pathway leads into a fenced garden area which gives access to the reception/waiting space.

The reception space contains seating, a tea/coffee point and access to a disabled WC. Opposite the entrance door is the access to the body-viewing room: a slightly larger space with windows and a double door out to the landscaped garden. At the back of the viewing room, a larger door allows access from the body-handling area of the mortuary.

Functionally, this sequence of rooms is clear and straightforward. Spaces are adequate in terms of size and furnishings and have comfortable environmental conditions. No apparent functional or technical problems were noted by the mortuary staff. The public exit route from the suite allows the option of either backtracking through the waiting area, or, if another family is occupying this space, of exiting through the garden.

2) 'HOW IT FEELS'

ARRIVAL: The parking spaces are marked with a non-standard sign, ‘Parking for Viewing Room and Garden only’, with a similar sign near the gated entrance to the garden. The immediate environment is typical of the site, rather hostile and unwelcoming – a mix of steel, brick and concrete-block buildings, including a shipping container/portakabin and a fire-escape stair. There is a small area of grass, but some additional planting alongside the path to the garden would have helped to soften the environment.

Once inside the gate a more private fenced garden is revealed, with generous planting, a timber bench and bound-gravel paths leading to the entrance.

The building is treated as a ‘garden pavilion’, with grey painted horizontal boarding and a lightweight glazed canopy over the
doorway (Fig 5). This establishes a fresh modern feel to the building and this quality continues inside.

RECEPTION/WAITING: The newly constructed reception area has a fully-glazed door with coloured glass side-panels, and a similar window to the garden, giving a good level of natural daylight. Artificial lighting is provided by ceiling-mounted recessed downlights. The décor is generally light and neutral, with mainly plain pastel shades of pale blue and green. Accent colours are provided by the furniture which has a stylish and slightly quirky contemporary look. The oak flooring and ash-veneered doors all combine to make the space feel like a high-quality environment, reminiscent of a modern office or hotel foyer. The disabled WC has a similar character with white ceramic fittings, black tiled floor and stainless steel or chrome plumbing.

Figure 6 There is a small lobby space in front of the door to the viewing room, with windows on either side, obscured with green and blue art-glass film in a landscape-themed design (Fig 6). The light level here is slightly lower, which helps to provide a moment of transition between the two rooms.

VIEWING: The viewing room itself is a slightly larger space and has natural daylight provided by a glazed double door and a coloured art-glass window towards the garden, plus some high-level clerestorey glazing also obscured with film. While there are no direct views out, the overall light level in this space seems at least as high, if not higher, than the reception space, creating a slightly less intimate and contemplative atmosphere than might be expected. With the variety of glazed openings, plus a number of prominent switches and sockets, the room is visually slightly cluttered and lacking an obvious focus, even with the specially commissioned fabric pall in place.

The movable bier on which the body is placed for viewing allows some flexibility in the way the room is laid out (Fig 7) and there is a range of furniture – sofa and chairs – similar in style and colour to the reception room. The other materials and finishes are also consistent throughout. A number of contemporary decorative items are displayed on the walls and the whole space has a fresh and lively quality. Artificial lighting is basic and not exploited in a way that would help provide a stronger visual focus for the viewing room.

No working sounds from the mortuary can be heard in the viewing room. There is some background noise from vehicle movements around the Accident and Emergency entrance, plus the hum of the ventilation system and occasional clicking of the radiator thermostats. The air quality in the space is good.

SUMMARY: Overall the new facilities have achieved a good balance between technical function and high-quality contemporary aesthetics. Furnishings, finishes and glazing all help to create a stylish contemporary feel, with a distinctive and ‘unclinical’ quality, although some users may find one or two items of furniture slightly too light-hearted in both colour and form. The garden is a particular strength of the project, allowing an important sense of transition for those entering and leaving the site.
SOUTHMEAD

1) ‘HOW IT WORKS’

The new mortuary viewing facilities at Southmead Hospital, like those at Frenchay, provide a suite of two public spaces with a separate external access. Clearly marked as ‘Viewing Room’ on the hospital map, the facility is tucked away towards the back of the site, to the north–west of the main hospital wards. Access to the suite for families is normally by appointment only and a member of staff is usually waiting at the gate to receive visitors. The entrance gate leads into a fenced garden area which gives access to the building.

The reception space contains seating, a tea/coffee point and access to a disabled WC opposite the entrance door. To the left is the door to the body-viewing room: a slightly larger space with a window over the landscaped garden. At the back of the viewing room, a larger door allows access from the mortuary via the staff entrance lobby.

Functionally, this sequence of rooms is clear and easy to follow. Spaces are adequate in terms of size and furnishings and have comfortable environmental conditions. No apparent functional or technical problems were noted by the mortuary staff. There is no direct access to the garden from the viewing room and the public exit route from the suite involves backtracking through the waiting area.

2) ‘HOW IT FEELS’

ARRIVAL: As with the Frenchay site, the gated entrance to the garden is marked with a non-standard sign, ‘Viewing Room and Garden’. The surrounding area is densely built up and there is currently construction work under way on adjacent sites, adding to the noise levels from passing vehicles.

Once inside the entrance gate, which is marked with a timber pergola structure (Fig 8), a more private high-fenced garden is revealed. This is generously planted, with a stone wall along the back. On the left there is a bound-gravel ramped path up to a timber bench, and on the right there are steps and another ramp down to the building entrance. The building has been clad with grey-painted horizontal boarding and reads as a lightweight ‘garden pavilion’. There is a simple canopy over the doorway. Overall, the garden has a positive and welcoming feel, only disrupted by the blue-painted handrails which appear slightly institutional and visually intrusive (Fig 8), although these were apparently not supplied as specified in the original design and are waiting replacement. As the planting matures this effect should eventually become less dominant, while also helping to unify the slightly eclectic mix of materials: rubble stone walls, stained timber fencing, red brick, blue brick, gravel, stone paving and metal handrails. The garden does not feel as private as it could be, because of the height of the temporary neighbouring buildings overlooking the space. Overall, it lacks some of the calmness and seclusion of the Frenchay garden.

Figure 8
RECEPTION/WAITING: The refurbished and internally extended reception area has a fully-glazed door with sidelights and two windows towards the road. All have coloured art-glass panels obscured with pale green and clear film including various foliage motifs. These provide a good level of natural daylight and privacy from passers-by. Artificial lighting is provided by ceiling-mounted recessed downlights. The décor is generally light and neutral, with mainly plain pastel shades of pale blue and green. As with the Frenchay suite, accent colours are provided by the furniture which has a stylish and slightly quirky contemporary look. Likewise, oak flooring and ash-veneered doors all combine to give the feeling of a high-quality environment, such as a corporate office or hotel. The disabled WC has a similar character with white ceramic fittings, black tiled floor and stainless steel or chrome plumbing.

There is no transitional space between the reception and the viewing room, and the door between them has a full-height vision panel which at the time of the visit was not screen-able. This could be uncomfortable for some users as they do not have the ability to control the views in and out of the room (Fig 9).

VIEWING: The viewing room itself is a slightly larger space and has natural daylight provided by a coloured art-glass window towards the garden. As with the Frenchay suite, the movable bier on which the body is placed for viewing allows some flexibility in the way the room is laid out and there is a range of furniture – sofa and chairs – similar in style and colour to the reception room. Likewise the other materials and finishes are consistent throughout and the whole space has a fresh and contemporary atmosphere. As the natural sidelighting from the garden window tends to dominate the artificial lighting from recessed downlights, the room lacks a strong visual focus, even with the bier and pall in place, although the bare walls are slightly relieved with several small decorative items (Fig 10).

No working sounds from the mortuary can be heard inside the viewing room. There is some background noise from vehicle movements outside, plus the hum of the ventilation system and the storage heaters. The air quality in the space is good.

SUMMARY: Overall, the new facilities have – as with Frenchay – achieved a good balance between technical function and high-quality contemporary aesthetics. Furnishings and glazing help to create a stylish contemporary feel, with a distinctive and ‘unclinical’ quality. The garden is again a particular strength of the project, although not quite as successful, or functionally useful in terms of circulation, as the Frenchay version.

NEWHAM – DESCRIPTION

Newham University Hospital NHS Trust serves a diverse population and has undergone a number of new builds and environmental improvements. The mortuary is located on the central corridor of the hospital and was made up of a small, dark viewing space (Fig 11) and a cramped waiting room that was also used as a staff office. The team reported wanting to maximise the space available and bring in natural light making a dedicated place that is pleasing to people of all cultures, where there is
time for reflection and peace. They also wanted to create an area where the Registrar could be on site. The renovation of an office to the rear of the facility allowed the person using the waiting room as an office to relocate, freeing the space for use as a waiting area for families and the registration of deaths. The team also wanted to create an indoor/outdoor space by knocking through to an external area (Fig 12) to provide natural light and create a covered garden. The team at this site were led by the Assistant Director of Nursing and included a specialist palliative care nurse, the trust’s multi-faith manager, a service user representative and Head of Client Services (the line manager for the mortuary area).

**NEWHAM – ARCHITECTURAL ANALYSIS**

1) ‘HOW IT WORKS’

Two new viewing facilities have been created at Newham Hospital: a reception and viewing room suite in the main part of the hospital, and a separate viewing room in the Accident and Emergency department. Access to the main suite for bereaved families is by appointment only and visitors normally check-in at a reception window in a small lobby off the central hospital corridor.

The reception space contains seating and a desk for the part-time Registrar. Opposite the entrance door is the access to the body-viewing room, through two doors and across the lobby which links the mortuary to the main hospital corridor. From the viewing room, a door leads out into a covered landscaped courtyard/garden, and at the back of the room a larger door allows access from the body-handling area of the mortuary.

Functionally, this sequence of rooms is clear. Spaces are adequate in terms of size and furnishings and have comfortable environmental conditions. No apparent functional or technical problems were noted by the mortuary staff. The public exit route from the suite allows the option of either backtracking through the reception/waiting area, or, if another family is occupying this space, of exiting directly from the mortuary access corridor back into the main hospital corridor.

2) ‘HOW IT FEELS’

ARRIVAL: The lobby space where relatives first check-in on arrival is directly opposite a café. As part of the new work the windows to the café have been obscured with translucent art-glass to provide some privacy for families entering and leaving the suite. The lobby itself is a narrow and cramped space, but relatives are directed to the waiting room immediately adjacent where staff are normally ready to receive them.
RECEPTION/WAITING: As with the lobby, there is no natural daylight in this space, but good use is made of artificial lighting to create focal points around the room. Stylish and contemporary decorative objects are displayed on the walls and alcove shelves, accentuated with downlights and dimmable wall-mounted sconces.

The décor is generally light and neutral with an accent wall in a deeper olive green. One wall is hand-painted with a tree motif, a theme that continues throughout all three of the new spaces and the Accident and Emergency room. A timber-panelled wall behind the desk also continues through to the viewing room, helping to lend further warmth and consistency. Accent colours are also provided by the furniture which has a contemporary but understated look. The timber flooring and ash-veneered doors all combine to make the space feel like a high-quality environment, welcoming and reassuringly familiar.

Opposite the entrance is a door that leads to the viewing room, but this route involves crossing the corridor used for access to the mortuary from the main hospital corridor. The doors at each end of this lobby cannot be simultaneously opened, so this prevents views into the mortuary, but the bare wall finishes and higher light levels in this space make an unfortunate interruption in the quality and character of the spaces on either side (Fig 13). This feature highlights the difficulty faced by all the projects of working within the constraints of existing hospital layouts.

VIEWING: The viewing room itself is a larger space which also benefits from a small amount of ‘borrowed’ natural daylight from a window overlooking the courtyard garden. A similar palette of colours and materials allows a continuation of the themes evident in the reception room. A number of accents are provided by the darker upholstered chairs, a painted tree design on one wall, a dark timber fretwork panel nearby and a wash basin elegantly mounted on a timber counter and dramatically illuminated from above with a recessed spotlight. This feature in particular helps to create a calm and contemplative atmosphere in the room (Fig 14).

The movable bed (Fig 15) on which the body is placed for viewing allows some flexibility in the way the room is laid out and there is also a folding screen of hinged doors that can be used to separate the body-viewing area from the rest of the space. This gives visitors the option of going straight through to the courtyard garden to prepare themselves before seeing the body. They can then look at the body through the window, if they prefer, before going back into the viewing room and sliding back the timber screen.
Behind the bed, the large door that gives access from the mortuary is partially disguised by the horizontal panelling of the wall, which runs across the door making it slightly less visually intrusive (Fig 15). No working sounds from the mortuary or extraneous noise from outside can be heard in the viewing room. The air quality in the space is good, but one consequence of the efficient air extract system is that fresh air is drawn-in from the courtyard garden and this makes the space feel much cooler than the reception room, especially in winter.

COURTYARD GARDEN: The garden space provides an opportunity to experience fresh air and natural daylight but, as it is solidly roofed over and screened off from views to the working areas outside, it is not immediately obvious that it is, in fact, an outdoor space (Fig 16). This area was formerly used for storage by the estates department and it is a commendable achievement that it has been incorporated into the project and transformed into a valuable resource. Aesthetically, it is dominated by a copper fountain sculpture in the form of a ‘weeping tree’, an object already owned by the hospital trust that has inspired the main decorative theme for the sequence of new spaces. Here in the courtyard the rather eclectic combination of copper fountain, bamboo cladding, landscaping, coloured glass alcove panels and texts displayed on the walls have resulted in a visually rather ‘busy’ and cluttered space that some visitors may find uncomfortable – especially in contrast to the simplicity and understated elegance of the previous rooms.

ACCIDENT AND EMERGENCY VIEWING SPACE: The refurbished viewing space in Accident and Emergency is located immediately adjacent to the access route from the ambulance bay to the Resuscitation Room. The entrance door has a glass-vision panel that can easily be obscured and inside a small waiting area can be created using a series of folding hinged door-panels, similar to the main viewing room described above. The décor is similar to the main mortuary suite, with slightly more standardised modular furniture. The window overlooking the entrance area has been partially obscured with translucent film in an organic foliage design, similar to that used elsewhere in the scheme. Environmental quality is generally good but acoustics are slightly problematic. Noise can clearly be heard from both the resuscitation room immediately adjacent and the ambulance bay outside. Again, this is a common and often insurmountable constraint of spaces within hospitals.

SUMMARY: Overall, the new facilities have achieved a good balance between technical function and high-quality contemporary aesthetics. The only interruption to this is the mortuary corridor that families have to pass through on their way from the reception space to the viewing room. The furnishings and glazing create a stylish yet warm and welcoming feel, with a distinctive and ‘unclinical’ quality, despite the challenge of limited natural daylighting. Although some users may find the atmosphere of the courtyard garden slightly too cluttered and distracting, the main viewing room is particularly successful, with a reassuring atmosphere of calm contemplation that remains culturally and religiously neutral – highly appropriate for the diverse community the hospital has to serve.
SALISBURY - DESCRIPTION

Salisbury NHS Foundation trust serves a population of approximately 200,000 in the Wiltshire, Dorset and Hampshire areas. The mortuary facilities are located at the back of the hospital and were accessed internally via a long, dark, oppressive corridor (Fig 17) or externally past the hospital laundry. Both of these routes were identified in the feedback as inappropriate for the newly bereaved. The team reported the viewing areas as functional but outdated (Fig 18). Hence the team’s aim was to improve the approach/entrance to the mortuary, the interior décor, and overall feel of the family and viewing rooms. The team intended to relocate the entrance and provide allocated parking. They wanted to create additional space with a glass-roofed entrance that could be used as a waiting area with facilities for collecting property and a visiting Registrar. The renovation was considered instrumental in changing the provision of bereavement services at this site by relocating and centralising relevant services in one place. This team was made up of a representative from the mortuary, the Head of Patient Advice and Liaison Services, an estates project manager and an arts co-ordinator. The team was led by a senior nurse.

Figure 17

Salisbury – Architectural Analysis

1) ‘HOW IT WORKS’

The new bereavement facilities at Salisbury District Hospital provide a suite of three public spaces with a separate external access and dedicated parking. The bereavement suite is not currently marked on the hospital map but access for families is normally by appointment only, allowing directions to be given verbally at the time of booking. A member of staff is usually waiting outside at the parking bay or at the entrance desk to receive visitors.

The reception space contains a counter and work station plus an informal seating area where various official functions can be carried out, such as the issue of death certificates and tissue donation. This space leads on to a transitional ‘Family Room’ or counselling and recovery space. Beyond this room there is a small lobby giving access to a disabled WC, a staff access door and the door to the body-viewing room. At the back of the viewing room, a larger door allows access from the body-handling area of the mortuary.

Functionally, this sequence of rooms is clear and well organised. Spaces are adequate in terms of size and furnishings and have comfortable environmental conditions. No apparent functional or technical problems were noted by the mortuary manager. The public exit route from the suite involves backtracking through the sequence of three spaces, which can, at busy times, mean that
families have to cross paths in the reception space. This point was highlighted as a concern at the early design stage of the project, but the team had not been able to find an economical way to avoid it.

2) ‘How it feels’

ARRIVAL: The parking spaces are marked with a standard blue-and-white hospital sign, but when the visitor walks towards the building entrance, a one-off wooden sign saying ‘Bereavement Suite’ becomes visible high on the façade. The hand-crafted quality of this sign, along with the panels of cedar boarding applied to the building, help to create a more ‘human’ and less institutional character to the entrance sequence, although more generous planting could have been used here to soften this effect even further.

RECEPTION: The new reception area has a fully-glazed ‘conservatory’ roof, giving a high level of natural daylight (Fig 19). The décor, as with the other new spaces is light and neutral, with mainly plain pastel shades of cream and yellow/green. There is a piece of abstract sculpture on a plinth to the right of the entrance door, and the furniture has a stylish contemporary look. Overall, this space feels like a high-quality environment, somewhat reminiscent of a modern corporate foyer space. There are currently no blinds to the roof glazing, so there is clearly a risk of this space overheating in summer without some means of controlling solar gain.

WAITING/TRANSITION: Moving on to the ‘Family Room’, there is a similar look and feel to the décor and furnishings (Fig 20). The lighting is soft on the eye, with indirect pelmet LED uplighters around the perimeter which are dimmable and there is also a window into a small lightwell/courtyard garden space. Again, some planting here would have helped to soften the aesthetic, but the small amount of daylight helps create a nice transition between the openness of the reception space and the more enclosed and intimate viewing space to come. High-quality materials are evident throughout: an oak dresser and coffee table, maple-veneered doors, and plain suede-effect upholstery help to create a calm and reassuring atmosphere. The vinyl floor has a subtle two-tone graphic effect which runs through all three spaces – one of the more obvious references to the concept of ‘flow’ described by the project team as an important unifying theme. This room is quieter than the reception space and comfortably warm. The door has a vision panel that can be screened for privacy with a sliding vertical blind.
VIEWING: There is a lobby between the transition and body-viewing space which is neatly and functionally detailed, although it slightly interrupts the character of the progression between the two spaces on either side. The viewing room (Fig 21) itself is more introverted with no views out.

Two back-lit stained-glass boxes mounted on the walls appear as if they could be windows and continue the green-and-yellow colour scheme and foliage motifs of the door glazing. The bier on which the body is placed for viewing is draped with an embroidered pall created by a textile artist.

This design also continues the vegetation motifs of the glazing and dimmable LED downlights directly above the bier help to create a strong focal point for the room. The extractor above the bier runs continuously it tends to draw fresh air in from the lobby, resulting in this space feeling noticeably cooler (at least in winter) than the family room. Double layered doors to the body-handling area of the mortuary are visible rather than screened off, but the level of acoustic insulation is good and none of the activity in the mortuary can be heard in the viewing room. Low-level ‘white noise’ from the ventilation system also helps to mask any extraneous sounds from outside.

SUMMARY: Overall, the new facilities have achieved a good balance between functional clarity and high-quality contemporary aesthetics. Colour, lighting, furnishings and artworks combine well to create a distinctive and ‘unclinical’ environment with a stylish contemporary feel, without becoming too self-conscious or overloaded with inappropriate symbolism that might have been off-putting to some users. The ambience is calm and restful, with a subtle use of one-off artworks to personalise spaces which could easily have ended up rather bland and generic. The sequence of spaces allows for a useful transition period either side of the viewing experience, although the need to backtrack through the reception area results in the possibility of interrupting another family on the way in.

MORTUARY VIEWING QUESTIONNAIRE

A total of 68 questionnaires were returned from the 3 case studies (North Bristol, Newham and Salisbury). Of these 36 were completed in phase 1 before changes in the environment took place (10 from North Bristol, 12 from Newham and 14 from Salisbury), and 32 were completed in phase 2 on completion of the projects (20 from North Bristol, 8 from Newham and 4 from Salisbury). Table 6 describes the sample at each time point.
Table 6: Description of sample of responders to mortuary viewing questionnaire

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<tr>
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<tr>
<td>Salisbury</td>
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<tr>
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<tr>
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<tr>
<td>Years of employment (mean)</td>
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<td>Reason for visit (n)</td>
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<td>Frequency of visits to mortuary (n)</td>
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<tr>
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<tr>
<td>Most months</td>
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<tr>
<td>&lt;Once a month</td>
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The size of the sample limits what inference we can draw from this data and no statistical tests have been conducted. The mean change across all of the six point semantic differential pairs was 1.8 points at North Bristol, 1.4 points at Newham and 1.1 points at Salisbury. Some of this difference may be accounted for by the relative difference in baseline scores which were 3.5, 3.2 and 4.0 respectively. The findings across the 30 semantic differential pairs are presented in Figure 22. Change scores were positive across all pairs at all three sites with the exception of the ‘quiet/noisy’ differential at Salisbury, although this was a difference of -0.04 points and based on a sample in phase two of only four staff users. At North Bristol, change scores greater than two points indicated that staff users of the new facilities considered these to be: expensive rather than cheap, modern rather than old, attractive rather than repulsive, fresh rather than stale, and good rather than bad. At Salisbury, a change of this magnitude was observed for the ‘modern/old’ differential. At Newham, changes of greater than two points were observed for two differentials suggesting that staff users considered the new facilities to be tranquil rather than chaotic and bright rather than dull.
Figure 22  Before and after ratings of 30 semantic differential pairs by case study site
ADDITIONAL STAFF COMMENTS

Respondents were asked to comment on the current state of the mortuary viewing areas. At North Bristol, at the first time point, respondents used terms like shabby, outdated, uncared for, dark and depressing, whereas in the second set of questionnaires respondents consistently used terms such as tranquil, peaceful, light, welcoming and relaxed. One respondent commented:

*First time in visiting the mortuary – found it very interesting and also relieved the fears that I had of the ‘mortuary setting’ ... I could imagine [seeing] family members that had passed away in this tranquil setting – very pleasant experience and the staff were lovely.* (North Bristol Southmead – after)

At Newham, before the renovation took place, respondents noted that the mortuary viewing areas were fit for purpose but dull, oppressive, small, dark, red, depressing and not sensitive to the ethnic diversity of the population served.

*...my immediate reaction to the mortuary... was: outdated, clinical, lacking warmth and sensitivity and not at all focused on patients! Very poor environment which must then affect staff working in it...* (Newham – before)

However, after renovations had taken place respondents commented that the area was calm, quiet, peaceful, private, dignified, relaxing, and although remaining small was now ‘perfectly formed’.

*...this area is now an expanse of space, creatively generated from an ugly space... with calming colours, interesting use of glass and natural light. The A&E room reflects the same qualities...* (Newham – after).

Staff visiting the Salisbury mortuary viewing rooms before the renovations considered the mortuary viewing areas to be functional, adequate, clean, tidy but also stark, dated, unwelcoming, far away and eerie. Some commented on the approach route to the mortuary pointing out that relatives must pass waste bins and the laundry and then walk down a narrow corridor with exposed pipework.

*...ceiling level pipework, intermittent delivery items deposited, waste bins used by other pathology departments which are large, yellow, ugly, sometimes over flow[ing] and malodorous. The rather garish murals on the wall to attempt to distract are not very successful...* (Salisbury – before)

Following the completion of the project, one staff visitor commented on the impact for staff and relatives:

*...although we work in a clinical area, the new bereavement suite doesn’t give that feel, it is very calming, clean cut and contemporary feel, which does have an effect on the families which have used the suite.* (Salisbury – after)
ARCHITECTURAL RECOMMENDATIONS FOR MORTUARIES

SUMMARY

Overall, the facilities selected for evaluation have achieved an appropriate balance between functional clarity and high-quality aesthetics. Colour, lighting, contemporary furnishings and individual one-off artworks combine well to create a comfortable, relaxing and ‘unclinical’ environment. From an architectural standpoint, the most successful spaces have a stylish contemporary feel, without becoming too self-conscious or overbearing. The best spaces achieve a reassuring atmosphere of calm contemplation that is culturally and religiously neutral – highly appropriate for the kind of diverse communities that most hospitals have to serve.

DESIGN RECOMMENDATIONS

Referenced to: NHS Estates, Health Building Note 20: Facilities for mortuary and post-mortem room services (32)

HBN 20 (4.1/5.3) – LOCATION/ENTRANCES AND SIGNPOSTING: Where space allows, a separate outdoor access point should be created to allow for dedicated car parking and a more private reception area, away from the noise and activity of the main hospital entrance area. Individual signage, distinct from the standard hospital design, should also be used in order to reduce the institutional feel of the visit.

Quality of experience for the visitor should be maintained across the range of end-of-life services by avoiding, where possible, a separation between the bereavement services suite and the mortuary viewing facility. These should be located close together and should be consistent in their standard of décor, lighting and furnishing.

OUTDOOR SPACE: Where possible, entry to, and/or exit from, the bereavement facility should include a small ‘private’ garden area which can be used by the visitor as a relaxing transitional space.

HBN 20 (5.6) – BODY-VIEWING SUITE: A simple sequence of distinct spaces should allow for a suitable transition either side of the body-viewing experience. Where possible, the need to backtrack through the reception area should be avoided, for example, by using a one-way circulation route that may involve exiting through a garden or courtyard area, when available. This will avoid the possibility of interrupting another family making their way into the viewing facility.

The sequence of spaces from reception to the body-viewing area should avoid crossing ‘clinical’ corridors, such as the staff route to the mortuary, where bodies may be in the process of being moved. This will avoid any disruption to the atmosphere of the viewing sequence that may be caused by the sudden return to ‘standard’ hospital décor.

High-quality furniture and finishes are recommended, with a broadly light and neutral feel. Consideration should be given to the use of ‘accent’ features such as: individual art/craft works, coloured/stained glass windows and decorative textile palls.

HBN 20 (5.10) – VIEWING ROOM: Top-lighting whether natural and/or artificial should be used to provide a strong sense of focus within the body-viewing area. An emphasis on light from above (and from concealed sources) can help create a calm and contemplative atmosphere, as well as a sense of
being in an ‘in-between’ realm, a quality that most visitors find appropriate to this kind of experience. Strong side-lighting and any possible views in or out should be avoided.

Access doors from the mortuary to the viewing rooms can be subtly disguised within timber-panelled walls, curtained, or left visible – in each case high-quality natural finishes such as solid wood or wood veneers are preferable.

ENVIRONMENTAL CONDITIONS: Within the body-viewing area it is important to exclude any extraneous noise from adjacent spaces such as the body-handling and mortuary areas, but some low-level background noise, such as from the environmental systems, is generally acceptable.

Negative air pressure created by extract ventilation in the body-viewing space should ensure that odours from the mortuary do not escape into the waiting and reception areas. However, care should be taken to ensure that air extracted from the body-viewing space is replaced from the waiting and reception areas (i.e. is pre-conditioned) rather than drawn in directly (and potentially cold or damp) from outside. Good air seals around the access doors to the body-handling area and any outside doors and windows will help to achieve this. The temperature and environmental conditions in the body-viewing space should be as close as possible to those in the reception and waiting areas.
FINDINGS: CENTRALISED BEREAVEMENT SERVICES

CAMBRIDGE - DESCRIPTION

Addenbrooke’s Hospital (Cambridge University Hospital NHS Foundation Trust) provides both generalist and specialist services to 350,000 patients a year. Prior to the EHE project, bereavement services were run out of a small cramped area (Fig 23), that was not easily accessible and required the newly bereaved to wait in a public corridor. The team therefore aimed to relocate and centralise the hospital’s bereavement services. There was not enough scope within the hospital to relocate the staff offices, so the emphasis was on improving the environment for relatives. Staff would remain in their current location but would use the old bereavement counselling room as additional office space. The project focused on providing services for bereaved relatives in one co-ordinated area by creating a private waiting area with rooms for counselling and registration. The current relatives’ room in the Accident and Emergency department (Fig 24) was also to be brought into line with the proposed new suite. The team consisted of a lead nurse from the Accident and Emergency department, a bereavement service co-ordinator, a chaplain, an arts co-ordinator and a representative from the estates department.

CAMBRIDGE – ARCHITECTURAL ANALYSIS

1) ‘HOW IT WORKS’

Two new facilities for bereaved families were created at Addenbrooke’s Hospital: a bereavement services suite off the main reception area of the hospital and a separate family room in the Accident and Emergency department. Access to the main suite for bereaved families is by appointment only and visitors normally check-in at the main hospital desk and are met by a member of staff in the general waiting area. Visitors are then taken into a new reception space inside the bereavement suite, which gives access to the two new rooms: one for the Registrar and one for bereavement counselling. The mortuary viewing facilities are located in another part of the hospital and were not upgraded as part of the current project. There is a separate space for post-bereavement follow-up counselling on the opposite side of the main hospital reception.

Functionally, this arrangement of rooms is clear and straightforward. Spaces are adequate in terms of size and furnishings and have comfortable environmental conditions. No apparent functional or technical problems were noted by the bereavement services staff.
2) ‘How it feels’

ARRIVAL: The new bereavement services facilities are located off the main hospital foyer, immediately to the right of the entrance doors. There was some reluctance on the part of the hospital management to locate the facilities so close to the front of the building, but this has been largely overcome by calling it the ‘Perry Suite’. Staff normally meet relatives in the main foyer space and escort them to the private waiting area inside the suite.

RECEPTION/WAITING: As this space has no external walls, there is only a small amount of natural daylight available from the high-level clerestory openings in the curved walls enclosing the two main rooms. Good use is made of artificial lighting to create a focal point at the narrow end of the room with downlights and a table lamp behind a dark brown leather armchair. Additional seating is provided by a series of fold-down benches decorated with artworks on the underside, visible when the seats are in the upright position (Fig 25).

The décor is light and neutral with laminate timber flooring and ash-veneered doors. In addition to the benches, the inclusion of a number of other artworks helps to create a more personal and intimate atmosphere: a small marble sculpture is displayed on a wooden plinth in the recess between the two curved walls and the vision panels in the entrance door are obscured with etched glass in an abstract organic design. Overall, the space feels like a high-quality environment, although the long narrow proportions would make it feel slightly cramped when a family group is present.

COUNSELLING: The counselling room continues most of the decorative themes established in the waiting space (Fig 26). It is a larger room and has an etched-glass window overlooking the hospital entrance. It contains comfortable seating in dark brown leather and an oak cabinet for temporary storage of personal belongings to be returned to the deceased’s relatives. Standard lamps give the room a domestic and ‘unclinical’ feel while maintaining a fresh and contemporary look. The atmosphere overall is calm and reassuring, although some extraneous noise is apparent from outside, particularly from around the smoking area near the hospital entrance. There has been some additional planting outside the windows in order to reduce this problem.

A separate follow-up room for post-bereavement counselling has also been created on the opposite side of the main hospital foyer. This is a smaller and slightly cramped space which lacks natural lighting. The décor and furniture has a similar feel to that found in the main rooms of the Perry Suite.
REGISTRAR’S OFFICE: This room has a desk and workspace for the Registrar near the entrance. The desk faces an etched-glass window similar to that in the counselling room. The glass is obscured to maintain privacy from the external smoking area. However, as there is no possibility of a view outside, this may cause some discomfort to the Registrar occupying the room for a full working day. Materials and decorative themes are consistent with the other spaces: light, plain walls with timber flooring and doors, as well as a number of small contemporary artefacts displayed in framed ‘boxes’ on the walls.

ACCIDENT AND EMERGENCY FAMILY ROOM: The refurbished family room is used as a waiting area for relatives while an emergency patient is being treated in the resuscitation room (Fig 27). There is no separate viewing space immediately adjacent, so any viewings must still take place within the Accident and Emergency area, or later in the main mortuary viewing space.

New furniture has been provided in the family room, simple and understated sofas and chairs upholstered in olive green fabric. Standard lamps and an etched-glass window to the Accident and Emergency corridor continue the decorative themes from the Perry Suite, likewise a similar carved stone sculpture is displayed on a plinth in one corner (Fig 28). Dark timber flooring matches a substantial oak coffee table that can also serve as a bench when needed.

The environmental quality in all three spaces is generally good, but acoustics are slightly problematic – noise can be heard from the Accident and Emergency area immediately adjacent to the family room and from the main hospital entrance and ‘smoking area’ outside the Perry Suite.

SUMMARY: Overall, the new facilities have achieved a good balance between technical function and high-quality contemporary aesthetics, resulting in a much improved experience for families using the bereavement and follow-up counselling services. It is unfortunate that the mortuary viewing facility at the hospital was not included in the current refurbishment project. A visit to the mortuary still involves a rather tortuous journey into the bowels of the hospital and these spaces now appear disappointingly dated and dispiriting. However, bereaved families usually visit the mortuary first, before going to the Perry Suite, so any disappointment caused by a comparison of the two facilities should be minimised.

The new spaces provide a stylish and welcoming experience overall, with a distinctively ‘unclinical’ appearance and a generally humane, calm and reassuring atmosphere. The project team had initially aimed to carry out a more ambitious plan, creating a new external access separate from the main hospital foyer space. This could have helped to increase the levels of daylight and views out, as well as providing some kind of conservatory/garden space which is lacking in the present arrangement.
York – Description

York Hospital became a foundation trust in 2007 and provides health care to the City, Selby District and the Easingwold areas. At this site bereavement services were provided from a small office with little storage space for patient’s property. The challenge faced by the team was to create an environment where the bereaved would not have to visit several different sites within the hospital to collect the death certificate and the belongings of the deceased. The facility to register the death within the hospital was only available if the death occurred within the Elderly Directorate. Hence this team aimed to create a centralised bereavement service. The team aimed to incorporate space for a Registrar, a room for discussions with doctors, a private waiting area and a counselling room with facilities to store patients’ property. In addition, the team planned a garden area for use by those visiting the bereavement suite.

In order to create the suite the team secured a number of extra rooms around the current small bereavement office for adaptation. Garden space has also been secured, but re-design due to an unforeseen structural problem has compounded delays. At this site, the team was led by a clinical development nurse, an arts co-ordinator, a trust governor and representatives from the bereavement service and estates/capital planning department. At the end of the evaluation period, work had started and the bereavement service had been moved to temporary accommodation within the hospital until completion of the project. The official opening of the suite did not take place until September 2010 (Fig 29). The King’s Fund therefore requested that an architectural assessment be carried out after the end of the evaluation period. This is included in this report.
1) ‘How it works’

An expanded facility for bereaved families has been created at York District Hospital – a new bereavement services suite which is located directly off the central corridor of the hospital. Access is by appointment only and visitors ring the bell at the entrance to the suite. They then enter a large reception space which gives access to the suite of new rooms: one for the Registrar, one for bereavement counselling and a small office for the Bereavement Services Adviser. The mortuary viewing facilities are located in another part of the hospital and were not upgraded as part of the current project. The open-plan reception area includes separate seating/waiting areas and a small kitchen/tea-point. It also opens on to a private garden area on the south side.

Functionally, this arrangement of rooms is clear and straightforward. Spaces are generous in terms of size and furnishings and have comfortable environmental conditions. No apparent functional or technical problems were noted by the bereavement services staff, apart from a temporary problem with the outside door to the garden, which on the day of the visit was inoperable.

2) ‘How it feels’

ARRIVAL: The entrance to the new bereavement services suite is located off the main circulation spine of the hospital. Its signage differs from the standard blue hospital signs. Mounted on the ceiling, the sign includes the words ‘Bereavement Services’ plus a simple logo consisting of a semi-abstract leaf-and-branch motif in white on a blue background.
RECEPTION: This space creates an immediate impression of quality in contrast to the corridor space outside. It is very light and spacious with views out into a private garden which creates a sense of flowing space connecting several smaller seating areas. The décor is primarily neutral but with strong accent colours provided by furniture and artwork (Fig 30). The walls are mainly painted in white eggshell with accent walls in blue and green. The furniture is stylish and contemporary and is upholstered in plain fabrics, in grey, green and purple. There is access to a disabled WC immediately to the right of the entrance. This is also finished to a high-standard with contemporary white ceramic and stainless steel fittings.

The small seating area immediately adjacent is used for families waiting to see the Registrar in the office opposite. There are individual chairs and a small table, with a panel mounted on the wall above containing a digital photo-frame with details of the project sponsors (Fig 31). The metal fretwork panel around the frame has been designed by an artist and is based on the same leaf-and-branch motif used in the sign at the entrance. The vision panels in the entrance door are obscured with etched glass in a similar organic design.

REGISTRAR’S OFFICE: This room accommodates a desk for the Registrar, with ample space and seating for families. There are no windows or natural daylight in this space, which could cause discomfort to the Registrar when working in the room for a full day. At the moment the room is only occupied in the afternoons. Materials and decorative themes are consistent with the other spaces: light, plain walls with grey carpet flooring, a large wall clock and a number of small contemporary artworks displayed in frames.

MAIN WAITING SPACE: Passing from the Registrar’s waiting area, visitors move through a transitional space defined by a curved wall and seating on the right, opposite a wall display of artworks and artefacts. The timber-laminate flooring of the entrance area gives way to grey carpet and the doors to the counselling room and office become visible to the right, opposite a small kitchenette. The main waiting space (Fig 32) opens up to the left, with a fully-glazed wall to the south-facing garden. On a sunny day this space is flooded with light, but privacy is maintained by timber fencing around the garden. There are two distinct seating areas and a variety of artworks on display. Artificial lighting is provided by ceiling mounted recessed downlights.
COUNSELLING: The bereavement counselling room is a carpeted space containing seating for four people and a small coffee-table with views of the garden (Fig 33). This space is also used for the return of personal belongings to a bereaved family, and these are held in a newly created ventilated storage space accessed off the administration office behind the kitchen. There is also a separate small private office next door for the Bereavement Services Adviser.

The environmental quality in all the spaces is generally good, but in the waiting areas the acoustics are slightly problematic. Noise can clearly be heard from people using the main hospital corridor, although from inside the consultation rooms this is much less obvious. The open-plan aspect of the circulation spaces and waiting areas suggests that privacy between different family groups may sometimes be a problem. Early plans of the scheme showed additional double doors separating the Registrar’s reception area from the main waiting space. In the final scheme these were omitted, meaning that the three distinct waiting areas are now all open to each other. It is rare that these spaces are all occupied by different families at the same time, although on such occasions this proximity could turn out to be uncomfortable.

SUMMARY: Overall, the new facilities have achieved a good balance between technical function and high-quality contemporary aesthetics. The décor has a fresh, stylish and welcoming look, which is surprisingly ‘unclinical’, but it gives the impression of being a corporate rather than a domestic environment. The furniture is distinctive without being overly quirky and the standard of construction and finish is good throughout.
**FINDINGS: PRISONS**

**HMP ALBANY – DESCRIPTION**

HMP Albany is one of three prisons on the Isle of Wight and currently houses Category B and C sex offenders and vulnerable prisoners serving sentences of four years or more. A new prison hospital has recently been built on site at Albany to serve the population of the three Isle of Wight prisons. The prison hospital provides a number of hospital cells for inpatient care as well as outpatient services. The initial idea was to use two of the cells in the newly built prison hospital building to create facilities for prisoners considered to be at the end of life. These two cells and adjoining shower room would work in conjunction with a garden area. The aim was to provide a quiet area for rest and reflection for dying prisoners and their families away from the main hospital. The team at Albany consisted of both NHS and prison staff and was led by a health care manager. It included the Acting Head of Prison Healthcare, the Head of Learning Skills, a residential principal officer and a prison site manager. One team member moved jobs during the project and more recently has had only limited involvement with the project.

Delays were encountered when it took longer than anticipated for the newly built prison hospital to be handed over by the Ministry of Justice and the team could not start work on the site until this happened. Although the cells have been secured for use by palliative care prisoners, redecoration has yet to be completed. The focus has been on the garden area (Fig 34).

The garden utilises prisoner sculptures in the walls of the planting beds (Fig 36) and willow arches to give height and focus. The coloured-glass dome (Fig 35) provides shelter when needed. Seating is provided and access is available from the hospital block situated next to the palliative care cells. The garden was not completed by the end of the evaluation period, and therefore no architectural analysis was conducted. However, work finished in August 2010 and is shown in Figure 35. Ongoing work in the cells was anticipated to be finished by the end of 2010.
QUALITATIVE FINDINGS

Data from the focus group and interviews with the prison team is included in the wider findings section as many of their experiences were similar to those of the other teams. However, the prison team encountered specific additional issues due to the nature of their site, and these are discussed separately from the rest of the qualitative findings. At the time of the programme, the prison team were working in a climate of substantial organisational change. In April 2009, mid-way through the programme, the service they were working within became one part of a wider organisation that brought together three prisons on the Isle of Wight. This entailed a number of staff changes in the organisation that directly and indirectly affected the project team. Within the qualitative data from the phase one focus group and the phase two interviews, three key differences between this team and the other teams on the programme were apparent: security requirements, organisational culture and a sense of disconnection.

SECURITY ISSUES

Participants from the prison team identified a number of security requirements that severely limited what could be done with the space and hampered the process of building and renovation. People wishing to enter the prison must be checked and escorted at all times. All tools and materials coming in or out of the prison also had to be checked and monitored. This process is time consuming and requires planning and therefore restricted the opportunities for more spontaneous working that some of the other teams enjoyed.

...the fact that we can’t just have a contractor come in and work and do a job, they have to be escorted. And so far every time a contractor came in, I’ve supplied an escort which means something I would normally do has stopped. (Phase two interview)

...things change from day to day. Just say, for instance, an inquiry happens or there’s been an accident, they freeze movement to stop different people coming into prison, they stop prisoners going to different areas so you have to adapt... (Phase two interview)

An additional bureaucratic process which tied the hands of the prison team was the ownership of the new prison hospital building. The team could not commence any works on the cells or the garden area until this was released to the prison.

So we’re all ready to go, but until the Governor signs acceptance, and he can’t sign acceptance for building until he’s advised to do so by the MOJ, who say that it’s all completed as per the standards, so that’s what we’re waiting on. (Phase one focus group)

CULTURAL DIFFERENCES

The team at this site was made up of NHS and prison personnel, both of whom commented on the substantially different working cultures between the two organisations. The changes in health care within the prison were relatively new and adjustments were still being made to create a successful health care team in the purpose-built hospital.
...because health care was slightly outside they're now mixed with the NHS, not the prison, they've got their own agenda, they've got loads of targets, the prison’s got loads of targets so it was very difficult for us to get anything joined up. (Phase two interview)

The team talked about making progress and changes in stages, knowing what was possible now and what they might be able to achieve in the future. Although not subject to the same policy drivers as the hospital trusts, the prison team recognised the opportunity to improve their policy and practice for end-of-life care. They were aware that this process would take time because of the nature of the cultural context they were working in. However, a number of key changes and improvements were already under way, in particular, the setting up of a cancer support group for prisoners.

What we said long term is once we get in, we’d like to actually have a garden and for family relatives to stay overnight and do a room next door, but that was our gold standard. But we knew we’d never achieve that... and we thought once we’d actually got there, got in and made certain arrangements, then we could actually extend it. Because to allow relatives to stay in that prison overnight you’re looking at five or ten years before you do that with the culture change [required]. (Phase two interview)

...it’s already started. There’s a nurse there that’s been appointed... she holds a group every Wednesday for people with cancers who may be approaching or fast approaching the need for end-of-life care, and that would be part of the process. Because we’ve got to rewrite things, so to get to a gold standard we’ve got to change governors’ thoughts and opinions and regime on allowing people to stay over and doors to be unlocked at different times... But step by step (Phase two interview)

**DISCONNECTION**

One fundamental difference with the prison team was that they were asked directly by Offender Health, Department of Health and The King’s Fund to join the other NHS teams as a prison pilot. This was following the withdrawal from the programme of another prison team. This meant that the team then had to identify an area for development after securing a place on the programme, rather than doing the groundwork to formulate the bid that the other NHS teams had undertaken. This meant that they were at a different starting point when the programme commenced.

The prison team learnt from working alongside the hospital teams in the programme and this changed the way they looked at the problems they were trying to address. One team member was particularly inspired by the motivation exhibited by other teams and how that was benefiting end-of-life care but was realistic about what could be transferred across the organisational divide.

They were more for NHS but you could see the ideas, you could see where they took their motivation... Their end results were always going to be a lot more rewarding, but... if you can get a fraction of that in a prison environment to me that’s great, that’s what it’s all about. And to see that, that keeps you motivated as well... And a lot of the time, now we do more, but we never used to, you never consulted with prisoners. You did things because that’s how it was always done, that’s how it had to be done. (Phase two interview)
However, team members sometimes struggled to identify with the challenges reported by other teams as they felt that the issues they faced were of a different nature, complexity and magnitude.

*So I suppose there is a degree of frustration... the other groups, they talked about their battles; they didn’t know they were born.* (Phase two interview)

In these ways, it was possible to see how the prison team sometimes felt disconnected from the rest of the teams. Not only are they physically isolated in terms of their location on an island, which created practical problems when one team member changed to a job based on the mainland, but the nature of the systems they must work within, and the role end-of-life care plays in health provision, is considerably and unavoidably different.
**Findings: AEDET and ASPECT**

AEDET and ASPECT scores are reported for the four case study sites where projects were completed. Although case study teams were dealing with different physical spaces and highly individualised projects, scores from AEDET and ASPECT were broadly consistent across teams. Across all sites where these measures were used, greatest improvements in AEDET scores were seen in the areas of: (i) character and innovation; (ii) form and materials; and (iii) staff and patient environment. The rooms renovated in the Accident and Emergency departments at Newham and Cambridge show a greater number of elements ‘not rated’ and ‘incomplete’. This may be due to the nature of the tools. As the focus is often on the building itself, mortuaries were more likely to be seen as discrete buildings in themselves compared with single rooms in an Accident and Emergency department. Of the mortuary viewing facility sites, Salisbury appeared to be starting from a higher baseline than Newham or the two North Bristol sites. This meant that change scores were less dramatic in Salisbury than elsewhere. The AEDET section ‘Use’ which measures the way users perform their duties in terms of functionality and efficiency highlighted substantial improvements of 2.9 points or greater at both of the North Bristol mortuary viewing sites where scores were particularly low at baseline. Improvements in this area were noted at all other sites but these were of a lesser magnitude.

All sites rated the ASPECT section of ‘Privacy, Company and Dignity’ higher at follow-up than at baseline with the exception of Salisbury that rated the site with the maximum score prior to the project being conducted. For Salisbury, the greatest gains were in the areas of (i) interior appearance, and (ii) comfort and control. With the exception of the two sites at Cambridge, the other key area of improvement, particularly for mortuary viewing facilities was in the ASPECT section of ‘Legibility of Space’, a measure of how understandable the space is to staff, patients and visitors in terms of layout and structure. Scores are reported by site in Table 7.
Table 7: Project teams AEDET and ASPECT ratings at baseline and change scores

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* Incomplete scores  
B/L=Baseline  
C=Change (positive scores indicating increase from baseline)  
nr=not rated
FINDINGS: FOCUS GROUPS AND INTERVIEWS

INITIAL DRIVERS

THE NEED FOR CHANGE

The project teams described a number of reasons why their particular environment needed to change. All felt that the environment did not reflect the quality of the service provided and in some cases was not appropriate for its purpose. Staff talked about how they often felt that they needed to compensate for the environment.

...people come to the mortuary department with trepidation and fear, and not only because they’re having to go and see a deceased loved one, but because of the sort of general conception of what a mortuary is... So we have to work twice as hard to try and keep them calm. Try and show that actually we’re a caring environment, and we’re trying to be supportive and we’re there to help them. (Phase one focus group)

A number of staff talked about being embarrassed by the environment they worked in and made excuses for the setting when in contact with service users. Comments from relatives of the deceased were also a driver for initiating the changes. The case study teams identified a number of elements that led to their initial application to the Enhancing the Healing Environment programme and these were reflected in the reports gathered from the other 14 project teams. Teams wanted to improve and develop their facilities, particularly in end-of-life care. For some team members, developing end-of-life care was part of their role in the NHS trust and the programme became an opportunity to give their ideas momentum and reality, sometimes after years of trying to make small improvements.

– It’s a problem that’s always been there.
– But you’d been trying to do that for a long time hadn’t you, and just got nowhere?
– I managed to get a little bit of money a couple of years ago, didn’t I, and commissioned some photographs... they’re on the wall, I mean they get a bit missed because the rest of the room is actually not so good. (Phase one focus group)

For others, awareness of the opportunity led to a focused discussion among staff on where and how environments for care at the end of life might be improved. Team members had either been made aware of the programme by a fellow team member or had heard about it from a manager within their trust. For some of the case study sites, previous King’s Fund projects had been carried out in a different clinical area and there was an awareness of the training programmes offered. At the prison site, the situation was a little different as the opportunity to represent the prison service became available when another prison site withdrew. This meant that this particular project was not at the same stage of development as the others at this point.

Teams felt that NHS trust staff, and the community they served, failed to recognise that hospital was a place where many people die. Prior to participation in the programme, teams felt that end-of-life and bereavement care had not been a priority for their NHS trust and this had manifested itself in neglect of the physical environment.

Not everybody who comes into hospital gets better and goes home. And you have to afford the dignity to the patients who don’t go home. (Phase one focus group)
Many of the teams considered the timing of The King’s Fund initiative fortuitous as it coincided with a wider policy climate that was beginning to address how people are cared for at the end of life. Within the teams there was an awareness of the End of Life Care Strategy and this was considered a useful backdrop to helping teams promote their projects and raise the profile of end-of-life care in their NHS trusts.

SEEING THE POSSIBILITIES

Initially teams seemed to envisage receiving the allocated monies and working within this budget. Many were not aware that they would be encouraged to think more broadly and aim for a more ambitious project, often turning an anticipated process of redecoration and refurbishment into a more radical renovation of a space within the NHS trust. For most teams taking part in the programme events helped to develop and shape their ideas for the projects. This was particularly true of the initial residential development programme held at Cranage Hall.

“We could have done the cheap job. We could have done something with the forty grand, but the programme made us feel that wasn’t good enough.” (Phase one focus group)

The King’s Fund programme was perceived as promoting and developing a certain type of thinking that each of the teams expressed in various ways. The programme events pushed the participating teams in ways that they were not used to and encouraged them to think differently about what they were trying to achieve and to become more tenacious in ensuring that the integrity of the projects was not compromised. For all the teams, the important thing was to create something ‘special’ that could demonstrate that the trust valued not only its patients but the staff working in those environments. The programme delivered training in venues that were not typical of those that the team members usually attended. This helped to make participants feel ‘special’ and valued, and it conveyed the message that the environment was crucial to well-being.

“I know I was very despondent at one point because I just saw it all disappearing... So actually it’s just going to end up that we refurbish the current rooms that you’ve got, which doesn’t address the main problems of relatives in clinical spaces... and all the things that we were trying to achieve, and we just wouldn’t have been able to achieve them. And I kind of felt like saying give The King’s Fund their money back because it actually isn’t worth it if all we’re going to do is redecorate these rooms and put some pictures in and change the furniture. That’s not what we’re about, that’s not what we’re trying to achieve.” (Phase one focus group)

“The standards that are delivered in the workshop with The King’s Fund in terms of how they treat us as a group of participants, it’s high quality, it’s imaginative... it raises [awareness of] what we want for our service users and our patients as well. We want to expect high standards of everything, and you can see the difference it makes. Certainly, if we’d been doing it in [an] old centre and we hadn’t been able to have the time together to do things in a nice environment... it makes you realise why the environment’s so important.” (Phase one focus group)

Team members increased in confidence, not only personally but also as a team. This emboldened them to ‘stick to their guns’ and find ways around the barriers and restrictions they encountered. Confidence often came from being asked to do things they would not normally do, or in a way that they would not normally do it. The programme often pushed team members to work beyond their
comfort zone by giving presentations, group working and participating in the additional activities provided.

So I rang them up and said 'look what are the issues? I very much appreciate the issues about infection control but what is your reasoning for why? This is an area where the patients are dead, so what are the infection control issues? And it’s in the toilet that the visitors use’, and she said ‘oh I didn’t realise that, no one had explained that, oh well it’s fine then’... So actually not taking ‘no’ for an answer was quite important and certainly in other projects they’re going to come up with the same kind of NHS regulations, and it’s just pushing people to say ‘well why is that so’ and ‘surely in this circumstance you can make an exception?’.

(Phase two interview)

WINNING PEOPLE OVER

All the teams engaged with both service users and other staff members to help develop ideas about what they would want and often took these contributions forward by including patient representatives in their wider teams and steering groups. The teams were often surprised by the level of interest and the number of people that attended open days to view the current facilities.

That surprised us didn’t it, how many of [staff] actually come to view a relative or a child, which was helpful for our evidence really. That it wasn’t just about patients and the public, it was also about our own staff experiencing this as a viewing room.

(Phase one focus group)

However, teams did encounter negative attitudes towards their projects. These attitudes often stemmed from a sense that money was being wasted in an area of health care that might be considered a low priority and on physical enhancements, when there were more-deserving claims on limited funds, in particular for staff and equipment. Team members learnt that their enthusiasm for the projects was not always shared by their colleagues.

But there was a real reluctance in the trust, ‘Well it’s just for the dead isn’t it? What are you doing that for?’ and ‘You should be spending the money on the living’. (Phase two interview)

Some of the larger projects, in particular, have received a lot of attention both across the hospital and within the local press because of the size of the projects and the area of investment. Some felt that their colleagues resented them being part of The King’s Fund programme. It was perceived as a luxury of questionable value in terms of patient benefit. However, teams also talked about the ways in which they had ‘won people over’ or ‘got them on board’ with their ideas and expectations. A key element of this, particularly with board members and senior trust staff was to get them to visit the areas identified as in need of renovation. Many of the team members spoke about how senior figures within their NHS trust started to recognise the prestige of being part of the programme and the potential benefits the project would bring.

A lot of [board members] said that they’d never been to a mortuary before... that’s the closest they’ve ever been to death. (Phase one focus group)
THE TEAM

GETTING THE RIGHT MIX

Each of the teams talked about how and why each member became part of that team. Membership was rarely fixed from the beginning and as the programme progressed in the early stages the group became adept at identifying the best mix for getting the projects done. This was not always easy but the groups gained confidence in making often difficult and painful decisions.

*Because other people were involved in putting it together before the bid went in... And then afterwards it was apparent that that wasn’t perhaps appropriate so... I thought well, no, we need to have a more direct link with the areas that we needed to deal with.* (Phase one focus group)

As identified by The King’s Fund at the outset, teams were required to have a clinical leader for the team. In one team this prevented the person they considered to be most appropriate from taking up this role. It appeared that because of this potential hurdle to their early cohesion, this team took on a multi-leadership approach by identifying areas of the project that could be led by particular team members.

*I don’t think that any one of us has been the overall leader. We’ve all come in and out at different times and led bits of the project, and we’re all on an equal playing field. There isn’t one person who’s any more experienced. We’ve all got different skills and qualities to bring into the team, and we’ve used them appropriately.* (Phase one focus group)

Good teamworking was considered an essential ingredient for success in all projects. When asked to reflect on their time working in their team, all respondents talked about the importance of the right mix of team members bringing different skills and personalities to the team. The key aspect of learning identified by the teams over the time that they had been involved in the projects was the opportunity to work with a range of people they would not normally work so closely with. This helped them to gain a clearer understanding of other people’s roles and the challenges others face in delivering their part of the service. A number of teams highlighted the need to work to each of their members’ strengths in order to meet the needs of the project. For the purposes of these projects several types of skills were considered key. Representation from the trusts’ estates department was recognised as essential by all teams. This seemed to be an area that other team members had no previous experience of working with and the collaboration helped them to understand the complexity of this role within the trust.

*Obviously, [coming] from a nursing background, I’ve never done anything [like this]. I mean I might have been involved with looking at new areas from a very clinical point of view, but not looking at the design aspects.* (Phase one focus group)

*...you couldn’t have done it without [estates]. I mean [the team leader] and I have had sleepless nights, we wouldn’t have known lots of stuff. We had no idea how to go about [it]. How do you engage with builders and architects? ...you couldn’t do it without someone who had that expertise.* (Phase two interview)

Some teams also advocated having someone of a senior level on the team who had access to other senior staff to support and champion the projects at a higher level within the NHS trust. A person
with some knowledge or artistic flair was also advocated as a useful asset to the team; this did not preclude the commissioning of an artist for specific works but it was considered to be an important part of getting the right look. A member of staff who on a day-to-day basis worked at the site to be renovated was also considered to be an important asset to the team. One team that chose not to include somebody like this debated their decision at length. The team members recognised this had been the source of some friction with the department where the work was taking place, however, they felt this addition to their team would have changed the dynamics in such a way that they would not have worked as well as they did.

I think we did ask that question near the end when there were a few strained relationships... should we have got somebody from that area into the team? ...I think the team would have broken down had we got somebody from that area, and I think that we had the right balance so that we could work as a team, because I think it’s better to have those challenges but have a working team rather than have no working team. (Phase two interview)

EXTERNAL SUPPORT

Wider support for the teams came from a range of additional sources. Case study sites varied in how they arranged this from co-opting other members as required to formalising a peripheral team that lasted for the duration of the programme alongside the core project team. Teams would often try to engage this wider group by including them, where possible, in King’s Fund events and procurement decisions. Teams felt that membership of this wider supportive group should include expertise in purchasing, fundraising, architecture, communications and publicity, as well as sponsors and additional staff from estates/capital planning and service providers/users from the project area.

When we’ve thought we’ve maybe needed some help and advice we extend it. So we’d co-opt our chaplain in, for instance, if we’re looking at any religious or spiritual things that we need to consider. We’d ask him to be involved. We’ve asked others from [the] purchasing department... We’ve asked for help with the garden layout and things like that [from] a gardener, so we’ve listened to other people and included them as well. (Phase two interview)

Only one of the case study teams had a service user representative as part of the core team, although some of the projects not selected as case study sites also included service users within their teams. Several other teams consulted service users. Although this input was considered of enormous benefit and consultation with service users was felt to be a key part of this type of renovation, incorporating a service user into the wider team was not without its difficulties, particularly due to the sensitive and often emotional nature of these projects. Therefore careful consideration needed to be given to how and when such inclusion could best be achieved.

...it very much changed the team dynamics having [a service user] at some of our meetings. It was really important that [the service user] should be at some, but there were other times when it was very inappropriate and particularly the first time that we went in to look to see how we changed the [site]... we should have had much more support and preparation for [them]. So I felt that we weren’t doing [them] a proper service in that we were exposing [them] to stress that wasn’t necessary really. I’m absolutely a hundred per cent behind patient and public involvement, but it has to be done in the right environment with the right support. (Phase two interview)
TEAM DYNAMICS

Rapport was considered vital to the success of the group. Teams credited much of their good teamworking during the lifetime of the projects to their initial residential visit as part of The King’s Fund programme. They felt that opportunities to get away from their usual work environment contributed to team bonding and helped to drive the project forward.

You’ve got to gel as a team to make it work. Because if you don’t gel as a team you’re not going to get people giving the extra mile, you won’t get the commitment, and The King’s Fund does the team building very well... the first thing you do when you go off for one of these weekends is do all sorts of weird and wonderful things together where you’re exposing yourself as a personality as well. (Phase two interview)

Good team bonding seemed to mean that roles within the team emerged naturally and allowed people to work to their strengths. The diverse nature of the teams meant that members came not only from a range of disciplines, but also a range of levels within those disciplines and within their organisation. For a number of staff working and being accepted as part of a team was a positive experience, particularly for those who worked in more isolated or more junior roles. However, in spite of this, hierarchies were evident and leadership within the team remained vital in order to make important decisions and achieve goals.

I still think you need a project manager to run a project, you need one person to action everything and make sure that things are cross sorted and all that stuff and that’s what was lacking with us. (Phase two interview)

But it was just you felt part of the group... because I’ve never been at a higher grade or whatever, you don’t think your ideas get listened to... it’s being involved where you’re saying ‘what about this?’ and ‘can we try that?’, and people listening and talking through why you had that idea or how it would benefit something, and sort of just feeling involved, I think, and valued as part of the team. (Phase two interview)

A particular challenge for the teams was when a team member either left the organisation or their role within that organisation changed. Teams chose not to replace members who left after formal approvals for the projects were given in January 2009, so teams occasionally had to work with either one less member or less input from that member as new roles limited the amount of time they could contribute to the project.

It’s that, when you’re together in an environment and you can get together it’s fine, but once one of you has moved on... I think that was a weakness we had as a team. (Phase two interview)

One of the additional challenges teams encountered over time was maintaining the enthusiasm for and momentum of the project alongside busy work schedules. King’s Fund days helped to regenerate this enthusiasm but, ultimately, when back on site the teams themselves had to find ways to keep the project on track. The skill mix and the dynamics of the teams seemed to be crucial to this. All talked about different people taking responsibility at different times, either when their particular skills were required, or when other team members were more restricted in the time they could spare.
Because the project has gone on longer than perhaps anticipated not everybody can go to all the meetings or go to all the functions at the same time, so somebody else steps up to the mark. You know, it really has been an absolutely rock solid team and that’s what’s kept this show on the road. (Phase two interview)
NEGOTIATION AND COMPROMISE

‘POLITICAL SAVVY’

All teams have had to navigate and negotiate a number of bureaucratic and political processes within their trusts, these predominately related to the spaces they were trying to acquire. Communication, informing people and keeping them informed, seemed to be an important part of achieving and maintaining people’s support and commitment to the project. For the two teams with centralised bereavement services projects, it was critical to identify and secure appropriate space. Each project required more room than they currently had allocated and a lot of negotiation took place early on in the project to identify and secure additional space. Securing these spaces was fundamental to the projects and teams often worked in nervous anticipation that their promised space might not be secured.

– One thing I don’t think we should underestimate is the fact that we... actually managed to acquire the site.
– I mean I had my heart set on that place. That was where it should be because it would work. But we had to look at other areas, and it wasn’t an easy thing to get any of them at all... Wherever we’d have chosen, we had to hoick somebody out... I mean we looked at some places and we thought it’s just too political to move somebody out of there because there would be strikes, riots, that type of thing. (Phase one focus group)

In some instances even once the space had been ‘secured’, teams had some fears that something may intervene to prevent this agreement being honoured.

– I’ll be happy when we’re in the room... Well, I told you she intimated to me the other day that there was this issue still, and I said, ‘well, I think it’s a bit too late in the day for that to be an issue, you know’.
– We take ownership of the room next Friday. That’s what we want to do, just get that room.
– We’re going to sleep in there, guard the door. (Phase one focus group)

These additional areas meant moving other people out of their current work space into a new area in a setting where space was always at a premium. A centralised bereavement service, by definition, requires a number of rooms for different functions including registration, counselling, liaison with medical staff, dealing with patient property, as well as the need for a private waiting area. For one of the projects, the location of the bereavement suite in the main entrance to the hospital was a political issue that the team had to negotiate.

And getting over the issue of the resistance to having bereavement services in such a high profile location, a lot of people still think it should be down on level one at the back of the hospital and nobody should be aware of it. (Phase one focus group)

– that’s my only wonder about whether it is, in essence, a bit hidden in a way.
– Because you see apparently... [one of the other sites] they’d actually, had actually named, they were at the front [of the hospital] and they’d actually named theirs the ‘Bereavement Suite’.
– Let’s be honest, it’s too difficult to do that [here]. (Phase two interview)
Design plans developed and grew over time and liaison between architects, estates and facilities placed great demands on the team. However, in order to secure their preferred option, teams often presented more than one option to their board members and estates teams. All felt they had achieved approval for their most ambitious designs and only the lack of physical space within the hospital limited what was feasible.

So we do need a bigger viewing room, and we do need a bigger relatives’ room, but we cannot facilitate that at the moment. So what we’ve got, we’ve really got to make it inviting and welcoming. (Phase one focus group)

– Because originally we were hoping to move the whole... department weren’t we, their offices, but our administration’s going to stay where it is. So, yeah, I think we compromised pretty well, really.
– Yeah, we have compromised, definitely.
– It’s the frontline bit of it that we’ve concentrated on. (Phase one focus group)

Teams felt they often needed backing to negotiate the higher levels of bureaucracy within their trust and to drive their projects forward. This was often achieved by making links with a senior member of staff, such as by involving them as a sponsor, working with a patient panel or by getting support from The King’s Fund. The teams identified The King’s Fund as having the credibility within their NHS trust to help to ‘open doors’ for their projects. They also recognised that offers of support from the two key members of The King’s Fund programme team were genuine and forthcoming. However, awareness of this seemed to promote sufficient confidence within the teams for them to navigate most challenges without calling on The King’s Fund.

So it’s been fantastic to be able to use The King’s Fund to open a lot of doors and say ‘hi give me some money! I want to change things’. So it’s good... with the kudos and the style of The King’s Fund, we’ve been able to sort of open a door in people’s minds to accept some change in attitude. (Phase one focus group)

I certainly felt if we’d needed to, we could have picked up the phone and said this has happened we don’t know what to do can you help us? And they’d have been there, and they’d have done something for us, which I think is not explicit in the programme, but you just feel that they were there behind the scenes keeping in touch with you all the time. (Phase one focus group)

The downside of what The King’s Fund does, although you may not see it as a downside, is that actually it sets you up to face challenges, that you clash with the organisation in a way. But then if you didn’t do that then you wouldn’t achieve what you achieve ultimately. (Phase two interview)
**DEALING WITH CONTRACTORS**

Some teams found it challenging working with outside contractors such as builders, artists and architects. Understanding the processes that needed to be in place to put the project out to tender and managing differing agendas between the teams and the outside contractor were also challenges. Teams needed to negotiate the tension between ensuring quality and meeting deadlines. It was felt contractors often used a different language hence teams struggled to translate their vision of the project.

> And I’ll give the architect his due, they drew up things that fitted with what we wanted in terms of the space of the rooms and the reception areas, but it was [in] the translation of the finer detail that they just went into hospital mode... It’s like the architects have got this thing called the blue book and only looked in there, and they wouldn’t, they couldn’t think outside that there might be other suppliers who could do something different for this project. (Phase two interview)

Team members from estates departments played a key role in these negotiations. However, they sometimes felt that the issues raised resulted from naivety by other team members in assuming that contractors would be able to translate their vision, when insufficient detail had been provided in the first place. For example, one estates manager suggested that more work at the design stage, with extended versions of the mood boards, could more accurately convey to the architects and builders the wishes of the group in relation to the types of products and materials expected by the team.

Some projects that were not able to convey their vision to their architects and builders found that a number of the smaller details had to be changed such as door handles, disability rails and paint colour.

> We had no idea that you couldn’t just tell the builders not to do something, the architects had to instruct them. And we really didn’t realise that you have to watch every little thing. (Phase two interview)

> So every other day we were coming into the space and driving the contractors crazy by saying no we don’t like that, that wasn’t the design I did, you’ve put the wrong colour door furniture on... it’s supposed to be brush chrome. All those little things suddenly mattered and they must have thought we were absolutely crazy. But actually they did matter because that was our design brief. (Phase two interview)

A number of project teams commissioned artists for things such as glass work, needle work, light boxes and sculptures. Generally, but not uniformly, experiences of this were positive, with these additional pieces often tying the project together with a branded theme. One case study site had both positive and negative experiences with their commissioned artists. While one artist was actively involved and helped to interpret and synthesise the team’s ideas to create the overall look and feel of the project, another delivered a commissioned piece of work that was felt to be inappropriate and misjudged.

> And that was the big lesson learned from the piece of work that was commissioned that we still had to pay for out of the budget... it was just that was the vision as interpreted, that was the piece that was created, but it wasn’t the picture that we’d all had in our minds. (Phase two interview)
Balancing the Budget

Getting the balance between striving for the most ambitious plan and what was feasible and practical within the budget and timeframe was a struggle for all the teams. Different teams took different tacks on how and when to compromise. Some felt that continuing to strive for their ultimate project was the most important aspect. However, for other teams compromising on their ideal and achieving a workable project within the allocated resources of time, space and money took precedence.

I’m sure The King’s Fund would have been pleased for us to have finished in cutting ribbons at the right time, etc, etc, I think what is more important is the completion of an inspired project. You know, that really we have picked up on exactly the principles that The King’s Fund have been drumming into us over all this time, and we have imagined more possibilities and we’ve just gone for it. (Phase two interview)

All things being considered I think we would have liked more, but what we eventually came to terms with, the reality of what we were going to be able to do financially. I think we were very pleased with what we’ve done. (Phase two interview)

It often fell to the team member from estates to maintain the feasibility of the project designs for the hospital environment. This was a challenge for the teams. Teams recognised that their plans had to change over the building period, with unexpected costs sometimes meaning that other areas had to be curtailed. Team members from estates were then considered the ‘voice of reason’ that kept the team grounded, so that their aims were achievable.

It was quite difficult when we were having a meeting and we were discussing lighting and it was about lighting in the office area, and I had to say no, I can’t do that, and it was ‘but we’ll pay for it and nobody minds’. I said no, I cannot do it like that, we are not allowed to do that sort of lighting in an area where somebody’s predominantly using a computer. And sometimes you feel like you are [always] the one saying ‘no’. (Phase one focus group)

An estates person was very valuable in the sense that the whole project starts with very nice ideas and how can we make this better. But at some stage you need to translate that into doable reality. (Phase two interview)
**WORK IN PROGRESS**

**MAINTAINING A SERVICE**

Mortuary staff found the period of building and renovation to be the most challenging. They had to explain to families why the service was not available and what contingencies were in place. Finding other suitable areas to hold viewings was particularly difficult and many staff felt this challenged the way they were able to provide support during that time. Wards, funeral directors and alternative buildings were used. These sites were all able to recount stories of having to improvise and provide a viewing wherever possible, often when relatives demanded a service and when initial backup plans had failed to provide sufficient care to the family.

*We had a little room off the old chapel that we used for viewing... which was really hideous because it smelled damp. And then here we just closed the viewing rooms [and used] the ward. And the one time I had to do a viewing, I viewed in the little piano room, I just kind of improvised. Because it was a big family, there were about 80 people... So it was quite awkward.* (Phase two interview)

*They closed the service... And there were a couple of incidents with relatives where they couldn’t believe that a hospital would shut its mortuary and not have viewing facilities... [you] do need to think about those contingencies.* (Phase two interview)

**SETBACKS**

All the case study sites that had completed by the end of the evaluation period experienced minor setbacks often described as ‘snagging’, where small problems remained unresolved until after the formal opening. Examples of this included glass work not in place and having to make do with temporary fittings while waiting for mistakes to be rectified. However, during the building periods several projects encountered unforeseen structural problems within the environment they were working in and these often led to delays with cost implications.

*I mean there have been the things like that, handrails that aren’t the right ones but that’s still on our list of snagging... we didn’t want blue NHS hideous handrails. What we’d asked for was stainless steel and wood, and what we got was NHS ones, so those are still on the list to be replaced.* (Phase two interview)

*When they were digging out the car park they discovered that the main telephone line for the hospital was buried under where we [were] wanting to dig down, so that caused a bit of a change in the plan and cost more because they had to do some work around that. Nobody knew that those service pipes were there.* (Phase two interview)

At the two sites where renovations were not complete by the time of the phase two interview, these environmental challenges had been the main cause of delays. At one site a tunnel, not recorded on hospital plans, meant designs had to be altered to accommodate this and the garden project was hampered by extreme winter weather.

**DESIGN FLEXIBILITY**

Flexibility and compromise were essential when it came to the finer aspects of design, particularly when personal taste was an issue. Team members often had to recognise that there were things they may not personally like, but they had to accept that not everybody’s personal taste could be
incorporated as this would threaten the overall cohesion of the design. Teams had to be flexible in their ideas so that the project could change as it developed. This was crucial in some projects where teams recognised that seeing something in the ‘flesh’ may be different to their expectations. However, sometimes getting contractors to work to this flexibility was a challenge for the teams. At other sites, teams recognised that they had not been specific enough in their attention to the finer details of the design or that decisions made about these details had been lost along the way.

The room we’re in now, the colour schemes that we chose, the green has always been green and that colour has always worked; however, the colour that went on the rest of the walls just didn’t work... So it’s been brave in saying, quick decision, get the colour card out, we have to change it, we want this one, and it worked so much better. (Phase two interview)
**IMPACT**

**ART AND DESIGN**

Some respondents felt that taking part in the project had given them a new perspective and openness to art. They had a better understanding of how art might be used in a hospital.

*The art side of it, because art’s coming into all buildings now, especially in hospitals... we went off to the Tate and did all those sort of things. [It] has helped me try and appreciate... and take on that sort of broader aspect of things. So you can actually try and understand where the artist or the art co-ordinator or whatever is coming from to try and include it in the job.* (Phase two interview)

Across all 20 sites, the projects raised the profile of art and design. A number of teams believed that their project had demonstrated to their NHS trust how important the environment is to patients, relatives and staff. The teams felt their projects now acted as a ‘benchmark’ for new facilities and building work. A number of teams reported that their trusts were considering appointing an arts co-ordinator or creating an arts programme as a result of their projects. In trusts where the use of art was already established, team members felt that its role in health care had been highlighted by their work. Other participants took a more practical approach, focusing on the functionality rather than the form of design.

*...sometimes you have to be practical – I don’t see you could ever roll out for a whole hospital. You can take a lot of the ideas and improve a hospital project definitely... there has been the art and those sorts of things.* (Phase two interview)

Some teams reported that their design ideas had influenced subsequent building projects. This was particularly evident at sites where the wider estate and purchasing teams had been closely involved in the project and were better able to understand the vision the teams were striving for.

*...we wanted to affect purchasing... because we felt that would have longest [effect]... from an ongoing point to view, to get the scheme’s benefits in the organisation more...* (Phase one focus group).

However, some participants from estates departments felt that unless their colleagues experienced The King’s Fund programme directly any real changes would be unlikely.

**PERSONAL LEARNING**

All teams spoke about the personal learning gained from the experience of working on the project and this is further reflected in the reports submitted by all 20 teams. Many talked about renewed enthusiasm for their jobs, greater confidence and additional skills. This kind of personal development was often seen to have a knock-on effect in their work roles and it allowed people to recognise their own skills and achievements over the course of the programme. For some, these skills had been learnt despite an initial resistance, particularly for those unused to group interaction, team building and public speaking. For more senior members of the teams seeing the development of more junior colleagues was a particularly rewarding process.
Personally it’s made me a lot more confident in interacting with people, working with people I don’t know, getting to know people. I’m a lot more confident in that kind of thing now. I think it’s just the age old thing, you get chucked right in at the deep end, you get to turn up at the three-day things somewhere in the country and there’s 60 people you’ve never met before, you just have to get on with it. (Phase two interview)

A few team members also talked about how undertaking the project had helped them recognise their own professional value and skills and how they might like to take these forward and use them in the future. Many respondents talked about their pride in the project and in achieving their goals. They felt they had gained recognition for their drive to improve service in these areas, which had previously gone unnoticed. This ‘re-energised’ team members to continue their work with a new understanding about what they might achieve.

I think undertaking a programme like that does actually give you increased confidence in a different way... I’ve certainly felt that there is potential to move outside of those areas as well, so that your skills could be taken elsewhere if you chose to. I think I’ve come to recognise that those skills are there. (Phase two interview)

END-OF-LIFE CARE

The recent policy drives for improvements in end-of-life care had prompted a number of NHS trusts to give greater attention to work in this area. Projects were seen as both part of, and a catalyst for, this ongoing work. Projects intentionally and unintentionally created dialogue about end-of-life care and started people thinking about how services were delivered. This seemed particularly evident for the mortuary teams where many had taken the NHS trust board to visit the mortuary area, which was often somewhere they had never been before. At a number of sites getting other hospital staff to see the project and understand its importance was a key part of raising the profile of end-of-life care and open days were well received and well attended. Some NHS trusts incorporated new areas in the training and education of staff.

(The end-of-life care co-ordinator) certainly included (the project site) in lots of their end-of-life care days and some of the workshops and stuff that they’ve done... I mean [they’ve] certainly taken groups of palliative care nurses and people down to view... so wanting all of them to encourage people to view, because that’s a healthy part of grieving and coming to terms with someone who’s died, knowing that there’s a lovely space that you can recommend and encourage people to go to is part of their life journey with the people they support. (Phase two interview)

Staff talked about the undervalued role of the mortuary viewing areas in the hospital. Before the work took place, staff were often embarrassed by the environment they worked in and actively discouraged viewings in the mortuary. Tours and open days opened up these facilities to other hospital staff and helped them to gain a clearer understanding of the care provided.

I think right across the trust it’s raised awareness of bereavement care, and certainly on the wards now, you know, the ward sisters and nurses would hang on to bodies for relatives to view on the ward, so that they didn’t have to go down to the mortuary. Now it’s so beautiful that it’s helping with the flow... which is important, and is better for relatives because they’re in an area where they can be cared for and looked after, not on a ward where everybody can see them coming and can see their distress, so it is much better. (Phase two interview)
Projects often prompted a review of current process and practices with some NHS trusts updating their end-of-life care documentation and teaching for ward staff in order to simplify and standardise the information and processes for both staff and next of kin. These kinds of benefits were evident throughout the projects and were often identified quite early in the process when projects were advertised to the public and other staff.

**Yeah, I think it’s raised the profile of bereavement in the trust... because we’ve spoken more openly about bereavement. If you look down the corridor, down the main corridor, in the middle of the corridor we’ve got a notice board there. We’ve got one in the health information centre right at the front of the hospital, so I think it’s being spoken [about] more openly than it has ever been before, and it’s given us an impetus to try and work on our policies... (Phase one focus group)**

It’s about giving the opportunity to look at the process as well, and to work out what’s wrong in the whole of that end-of-life care journey for people. (Phase one focus group)

Teams, however, recognised that work would be ongoing in order to make real cultural changes in the way end-of-life care is viewed in the hospitals. Participants noted that these projects were just part of a process of greater recognition that many people die in hospital and that care of the deceased and their families goes beyond the point of death. Those working in the clinical areas where the projects had taken place had commented on how the improved environment had enabled them to deliver better care.

Well, it’s improved delivery of service. It’s improved the morale of the people working within this area. It’s certainly improved my morale. It’s increased the profile of the service that we provide both to the community and also to the trust. It’s raised the profile of the people who work in here as well. People now have a better understanding of what the roles are within this department as well. So I think there’s a great [deal] more respect towards myself and my staff and the service we provide. It’s improved the service for the relatives as well, obviously it makes their lives a lot easier, and it’s just an improvement all round really for everything. Every aspect of our service, it’s had a major effect. (Phase two interview)

**THE RIPPLE EFFECT**

Although the timescale of the evaluation of the programme was such that it is not possible to identify longer term outcomes, there are indications that the benefits gained by staff who took part in the programme will have knock-on effects for other NHS trust staff. This was reflected in the discussion of outcomes as teams recognised their own and the team’s development and how that had potential for the trust as a whole.

I think the team which [The] King’s Fund has developed alongside the project are champions to the cause for future developments. The experience and level of development on the programme has been invaluable to us all. The main change has been with the estates department as already doors along the main hospital corridor are being replaced with quality rather than boring veneers. The estates manager is challenging the hospital manager around refurbishment issues which is a delight to observe. The interest in the new facilities has been incredible and the ‘wow factor’ I think gives it the exemplar stamp. (Quote from progress report)
The project has demonstrated what can be achieved and team members have been asked to participate in other internal and external projects e.g. baby viewing area, chemotherapy suite, prayer room, hospice overnight stay room and capital grant project, and the quiet area in hospice. (Quote from progress report)

Several teams talked about how they are now providing input to other environmental development projects by sharing their knowledge and expertise. Teams were deservedly proud of the fact that they had been invited to join NHS trust committees, speak at meetings and had won awards in connection with their projects.

PROGRAMME FEEDBACK

Teams provided feedback about the programme days they had participated in. Discussion was held in the focus groups and individual interviews and an overview was given by all teams in their final reports. In general, feedback for the programme and the programme team was highly positive. All the team members were generous in their praise of The King’s Fund programme team and the programme itself. They recognised the value of taking time out from their normal work environments to focus on the projects. Teams frequently referred to the initial programme residential at Cranage Hall as fundamental to the process of team building and project development, despite some team members finding some of the exercises a real challenge.

I’ve never ever been on such a good development programme. That first one particularly... I would suggest if people are setting out on this, if they don’t all get to... that bit of the programme, they’re losing out most definitely. They’ve got some hard work to do afterwards because that’s what bonds you, gels you, I don’t know what it is, whether it’s the singing or the fact that you’re working [so hard] for however many hours it is, 72 hours and I don’t know, but they do it beautifully. (Phase two interview)

The sessions on lighting and colour were highly praised for being interesting and useful by all the teams. The visit to the Tate challenged some people but was generally well received and helped people to view art in new ways and in relation to their own projects. Visits to previous project sites helped teams to cement their own styles. Their experiences on the programme enabled them to look at these projects critically and to establish which aspects they liked and disliked. The teams recognised that they had picked up a number of different ways of learning during the programme. One participant referred to the process of ‘subliminal learning’ when explaining how they had learnt about branding.

...it’s like a little sort of learning really because it’s about grabbing attention, keeping attention, something different... I think there’s been learning in absolutely everything, you know. And the music as well... that’s something that really sort of brands it doesn’t it? So again it made us think about branding. So all those sorts of things really, subliminal learning, do you know what I mean, we’ve been able to adapt, [for] benefit, not only for the project but for the benefit of what I do generally day to day. (Phase two interview)

Most of the training sessions were considered to have been pitched at a range of levels in order to reflect the skills and experience within the teams. A number of respondents participating in the case studies felt that some of the sessions on personal and team development did not seem to fit with
the rest of the programme. This was in spite of the fact that all teams felt that they had indeed developed both personally and as teams.

The diversity of the teams meant that they incorporated people with different levels of experience of management, some of whom had previous management training and felt the content was repetitive and others who had not and found it difficult to understand.

It was so diverse, different groups of people from so many different backgrounds, that it had to be aimed at everybody... one of the team members was a volunteer, and in talking to different people I think the assumption might be that you pitch it at a particular level. (Phase two interview)

A number of team members felt that the discussion and work relating to ‘property bags’ was an aspect of the programme that had not worked well. Some thought it was an issue that was not relevant to them and others felt it should be addressed but that it had become over complicated. In addition, participants in the programme would have liked help in dealing with external contractors such as artists, builders and architects.

One thing that I think would be useful is if there could be a session on actual negotiations with architects and artists because that’s new to lots of people and art commissioning is quite a difficult process... you’ve got a certain concept in mind of something you want to achieve in terms of the environment or the atmosphere, but you haven’t got the answers because you hope the artist will have... Sometimes (the artist’s proposals) are not exactly what you had in mind... But there’s also difficulty in actually how to monitor that process and how to make sure that the end result that the artist delivers, which needs to have some kind of artistic freedom and expression, fulfils your needs... that’s quite a difficult process, and in our case it went quite well. And on top of that you’ve got... the negotiations in terms of finance and fees with artists and architects. So that would be something that The King’s Fund could include a session on... It could be quite useful during the first three days [to have] a presentation by a commissioned artist. Because what you have in the room is a whole group of people who are about to commission architects and artists. It would be useful to see the other side, how an artist approaches a commission, what for him or her are the challenges, the difficulties, the annoyances, etc. (Phase two interview)

A small number of teams felt that time should be spent encouraging teams to think about funding and when they might have time to plan this aspect of the project. Eleven of the twenty teams highlighted ‘time’, juggling their normal work load and having time to get together, as one of the greatest challenges throughout the project. They suggested that being clear about the type and length of commitment from the outset was fundamental. Other feedback included having ‘time’ to talk to other teams, particularly those undertaking similar projects, or other team members in similar roles such as those from estates/capital planning, arts co-ordinators, or mortuary staff.

I think what I would have liked, although the time we spent as a team is brilliant, it would have been nice to have had more time to speak to the other groups. I found that was quite lacking. (Phase two interview)

I think [it would have been] useful if they had grabbed all the estates persons and put them in another group and say right, you lot have got to deliver this project. I was sort of expecting that but didn’t get that. (Phase two interview)
DISCUSSION

The purpose of this evaluation was to gain a greater understanding of the process and outcomes of The King’s Fund Enhancing the Healing Environment Programme for Environments for Care at End of Life. We took a mixed-method approach that used quantitative and qualitative data gained from team members, project teams and the programme as a whole. Data was available from documentary sources, mostly progress reports, for all twenty project teams. Six case study sites were selected by the Programme Steering Group for in-depth study. The case study sites were chosen on the basis of the focus of their projects (centralising bereavement services or improving mortuary viewing facilities) or because of the type of organisation (the prison service team).

SUMMARY OF MAIN FINDINGS

PROCESS OF CHANGE

In the baseline focus groups with the six case study teams before building began, the magnitude of change required was clearly revealed, with teams talking about the need to compensate for the poor quality of the environment and the negative impact they perceived this had on the care of service users.

Entry to the programme allowed consolidation of team members’ emergent visions for change. It gave teams confidence and space to consider going beyond the ‘safest and cheapest’ option and instead to think broadly and creatively about what might be achieved in their particular areas for the benefits of service users, if further funding could be found. The programme delivered training in venues that were not typical of those that the team members usually attended. This helped to make participants feel ‘special’ and valued, and it conveyed the message that the environment was crucial to well-being and could impact significantly on service delivery.

The composition of teams did not vary considerably in terms of which NHS trust departments were represented and this was partly in response to The King’s Fund’s recommendations on team mix. However, the level of seniority did vary and the more successful model seemed to be one of vertical integration, where those with influence at senior NHS trust levels worked alongside those who had close and frequent contact with service users and providers. The experience of working closely with artists and, in particular, with staff from estates departments gave many clinical staff an insight into worlds that they had previously had little knowledge of. All case study participants felt that the direct involvement of the estates department at all stages of the project was crucial.

Across all 20 teams and throughout the life time of the projects, securing resources was the most frequently reported challenge in the 6 progress reports (n=19), followed by time constraints (n=15), location problems (n=12), building issues (n=11) and the attitudes of others (n=11).

By the end of the evaluation period (May 2010), 13 of the project teams had completed their projects. The median estimated total cost for the projects increased from £45,000 reported in the first progress report to £117,000 at the last available report with a total estimated cost across the projects of £2.6 million. The six case studies chosen for the evaluation were broadly representative of the cost and scale of all twenty projects. The most recent estimate of total project cost for each case study site was between £50,800 and £365,000. Additional funding was secured from a number
of sources including the NHS trust itself (12 projects), trust-related charities (11 projects), external charitable funds (3 projects) and own fundraising activities (3 projects). Estates representation within the project teams was considered essential for managing budgets.

**Delivering End-of-Life Care and Use of the Physical Environment**

Staff reported that the new environments created an impression of spaces where the deceased and the bereaved could be cared for rather than simply ‘processed’. This was largely achieved by the creative use of lighting, colour schemes, textures and commissioned artworks. In consequence, users of these new spaces were reported as feeling more comfortable in taking their time in viewing the deceased or in dealing with the administration routinely generated when a person dies.

All teams spoke of the sense of pride they had in witnessing the development of their project from conception through to completion. For many team members, this had given them a renewed enthusiasm for their work in delivering end-of-life care. Open days and local media attention meant other trust staff were gaining a greater awareness of how and what care was provided in areas previously hidden from view. This, in turn, assisted the flow of the hospital by encouraging ward staff to utilise the mortuary viewing areas and bereavement service rooms appropriately.

Although case study teams were dealing with different physical spaces and highly individualised projects, scores from AEDET and ASPECT were broadly consistent across teams. Across all sites where these measures were used, greatest improvements in scores were seen in the specific areas of: (i) character and innovation; (ii) form and materials; and (iii) staff and patient environment. Similar findings were observed from the mortuary viewing questionnaire.

Following the architectural assessments conducted at the case study sites where there was a particular focus on mortuary viewing, specific recommendations have been made to inform future revisions of the relevant Health Building Note (HBN 20) (32). These recommendations relate to the location of mortuary viewing facilities, entrances, signposting and environmental conditions.

The high profile given to these projects within each of the NHS trusts where the teams were based had the effect of underlining the importance of the physical environment in the delivery of health care more broadly. A number of the teams cited examples of other estates’ work taking place within their NHS trusts that had been directly influenced by their projects with a greater attention now being paid to design quality and the use of non-standard materials and fittings.

**Attitudes to Death and Dying**

The programme was launched at a time when policy drives for improvements in end-of-life care had prompted NHS trusts to give greater attention to work in this area. Projects were seen as being both part of, and a catalyst for, this ongoing work. Projects intentionally and unintentionally created dialogue about end-of-life care and started people thinking about how services were delivered.

Many team members worked hard to overcome negative attitudes towards the allocation of limited resources to an area of care that was not considered a priority. However, as this work related to the physical environment, teams were able to demonstrate the potential and real improvements that could be/were made. The importance of end-of-life care was thereby brought to the attention of senior NHS trust staff in a visceral way. This seemed particularly evident for the mortuary teams where many had taken the NHS trust board to visit the mortuary area, which was often somewhere they had never been before.
The project team from the prison service faced a layer of challenges not experienced by other teams. Policy developments in end-of-life care were not afforded the same priority as they were in NHS trusts. The need to negotiate across two organisational cultures slowed down the progress that they hoped to make and limited what they hoped to achieve. While the team were positive about the programme, the difference in the working cultures of the health service and the prison service was perhaps greater than the shared interest in end-of-life care environments.

**STRENGTHS AND LIMITATIONS OF THE EVALUATION**

This was a pragmatic evaluation of a highly complex programme and inevitably there were limitations to our evaluation that should be taken into account when interpreting our findings. Owing to the timing of the programme and the evaluation, and the slippage in timescale of the projects, it has not been possible to say anything definitive about the long-term consequences of the work that has been undertaken by the project teams.

Others’ views of the programme and process are evident from the study but inevitably filtered through the accounts of the team members themselves. This evaluation was an in-depth look at how the programme fostered the development of twenty teams to create a new space in a relatively short-time period. We decided at the outset that our focus should be the teams and their members. There will always be a tension between the need for distant and impartial observers, and the ability to understand the context within which the ‘intervention’, in this case the programme, was delivered. On balance, we decided that the latter was of greater importance and this additionally allowed for greater trust between the participants and ourselves.

The architect who visited the case study sites after completion did not have any contact with the programme itself and this provided a more objective basis on which to conduct these architectural analyses. However, as this was a ‘one-off’ visit to each completed project site, this area of the evaluation was not able to pick up on the extent to which the environment had changed. There is a dearth of validated measures of how the physical environment affects health care users and providers. AEDET and ASPECT are widely used measures in the NHS though more reliable for larger-scale projects and new hospital buildings rather than renovations of existing space (10).

Our findings from the case study sites are consistent with our analysis of the progress and final reports. The use of focus groups during the first phase of the analysis and individual interviews in the second allowed for insights at both team and team member level. Owing to research governance constraints, and ethical and practical considerations, it was not possible for us to directly access the views of bereaved friends and families of the deceased. Clearly, it is for this group to have the final say on whether and how environments for care at end of life provide some form of emotional comfort. However, at this early stage, anecdotal evidence via the teams is highly encouraging.
RECOMMENDATIONS

1. The particular methodology that the Enhancing the Healing Environment (EHE) programme uses delivers changes in the physical health care environment and raises awareness of the importance of the environment in the delivery and receipt of services. Therefore continued investment in the EHE programme should be considered a cost-effective way of providing NHS trusts with an exemplar of how a multidisciplinary team can effect change on the physical health care environment.

2. NHS trusts should maximise the benefits gained by staff who have been part of EHE projects and where possible, and appropriate, utilise their experience to inform other renovation work within their NHS trusts.

3. The EHE training programme may wish to consider the inclusion of specific training on negotiating and managing the process of working with outside contractors such as artists, architects and builders.

4. Training for staff at all levels should aim for a greater understanding of the importance of the physical health care environment and the effects of the environment on patient outcomes.

5. Staff teams that are charged with undertaking projects relating to the physical environment should be not only ‘horizontally’ integrated across departments, but ‘vertically’ integrated so that those with direct experience of service provision are working with those with sufficient influence within the organisation to effect change.

6. Health care organisations need to foster better channels of communication between estates staff and those delivering care. There needs to be a two-way process that raises awareness between these two staff groups to enable clinical staff to have a greater awareness of what estates staff ‘do’ and understand how they can influence decisions about the physical environment.

7. Most deaths occur in hospital and end-of-life care pathways have not always recognised the role that hospital mortuaries play in end-of-life care. This may be due to their physical location, their appearance and the fact that mortuaries are often considered to be places where the deceased and bereaved are processed rather than cared for. Greater attention therefore needs to be paid to the pivotal role that mortuaries play in end-of-life care and the impression their appearance will leave on the bereaved.

8. The physical route that a bereaved relative takes in order to undertake administrative processes necessitated by the death should be simple, contained, and avoid areas that may cause further distress such as refuse collection points.

9. Environments for care at end of life should strive for a reassuring atmosphere of calm contemplation that is culturally and religiously neutral and is not overtly and unnecessarily clinical.

10. There is a dearth of validated measures of how the physical environment affects health care users and providers. AEDET and ASPECT are widely used measures in the NHS though more commonly used for larger-scale projects and new hospital buildings rather than renovations.
of existing space. Therefore there is a need to develop reliable and valid measures that can
detect how smaller-scale changes in health care environments affect health outcomes.
11. Additional evaluation of the impact of The King’s Fund programme should be undertaken to
identify and assess the longer term outcomes of the changes that have been made to the
physical environments in these NHS trusts.
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REFERENCES


APPENDIX A – MORTUARY VIEWING QUESTIONNAIRE

Staff views of the mortuary environment

We want to gather views about the hospital’s current mortuary facilities. The focus is on the physical environment such as the access, colour scheme, size and shape of the facilities rather than the staff or role of the mortuary.

Please answer as many of the questions as you can, but do not worry if you cannot answer them all. It should only take you about 10 minutes. Thank you for taking the time to complete this.

1. What is your job title?

2. Approximately how long have you been in your current post?

3. How often do you visit this mortuary? (tick one only)
   Most days ☐ Less than once a month ☐
   Most weeks ☐ Rarely ☐
   Most months ☐ I have not been here before ☐

4. Why you have come to the mortuary today?

5. Please add any words that spring to mind to describe the mortuary area of this hospital:

6. Are you Male? ☐ Female? ☐

7. What is your date of birth?

Below are a series of questions that examine your attitude towards this mortuary facility. Please consider the pairs of words carefully but do not spend too long on each one as it is your first impression that is important.

For example:
If you feel that the mortuary facilities have an expensive rather than a cheap appearance you would circle a number closer to the word **Expensive**, depending on the strength of your feelings.

<table>
<thead>
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<th>Expensive</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
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<th>Cheap</th>
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Please circle the number on the scale that you think best applies for each of the descriptive pairs below. Please use any of the numbers on the scale of 1 to 6 that reflects the strength of your feelings.

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<tr>
<td>Open</td>
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Please make any other comments you wish about this environment:

Please seal the completed questionnaire in the envelope provided and leave it with a member of mortuary staff. Alternatively place the envelope in the mail.

We would like to take this opportunity to thank you for your participation in this study.