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DAVID KERSHAW ON CAPITAL COSTS

IN ASSOCIATION WITH

Balfour Beatty





Buildings may only account for a small part of the NHS budget each year, but they provide the environment for patient care, and can have a positive impact on improved patient outcomes. At the heart of the ProCure21+ cost reduction programme is the focus of providing better, more cost-effective facilities: for example arrangements for the adult acute bedroom are evidence-based and offer capital savings of up to 11 per cent. Eleven different Repeatable Room arrangements were rolled out last February, along with a series of standard components. The room arrangements, available under free licence, are now being used by four NHS trusts; almost £1m has been saved to date from procurement of standard components (with the potential for £30m annually if universally adopted).

As well as supporting implementation of this programme and advising some 600 trust and stakeholder representatives during 2014, the ProCure21+ Principal Supply Chain Partners (building contractors) have spent this year developing a Repeatable Room for mental health services: a bedroom with en-suite WC and shower room for functional and organic mental health conditions.

Starting as before with a research review in association with London South Bank University, the development process was extended to include structured interviews with volunteer

'Almost £1m has been saved to date through standard components'

trusts. Three different service user groups were also consulted. Finally, an experience base was convened from national and international projects. Initial proposals were presented to two expert panels, including clinicians, academics, service users, trusts, designers, healthcare planners and royal colleges, then subjected to operational and functional tests.

Final proposals, comprising a bedroom with en-suite adjacent to internal corridor for functional mental health conditions and two organic mental health equivalents with the en-suite corridor side and a nested or parallel arrangement of en-suites, were then presented to a technical panel.

An interesting and potentially far reaching supplementary benefit is that the bedroom envelope may also suit a forensic service. If adopted on a wide scale, trusts would have greater ability to respond to changing acuity levels without a change in bed space numbers, while reducing capital investment. As health minister Dr Dan Poulter said, the cost reduction programme will "save every trust money that can be put into frontline patient care".

David Kershaw is ProCure21+ programme director for principal supply chain partners www.procure21plus.nhs.uk



THE ROOMS ARE PART OF THE THERAPY'

An evidence-based template for mental health bedrooms offers a thought provoking example of how the NHS hospitals could do new builds in the future – using standard, repeatable designs. By Catherine Blackledge

The brief was unequivocal: design a futureproof mental health hospital bedroom therapeutic in terms of space and comfort while being of minimal risk to users – and reduce capital costs. The key to achieving this challenging remit was twofold: underpin design with evidence, and deliver cost reduction through standardisation.

"If I was a chief executive," says healthcare planner and former hospital manager Stephanie Brada, "I would want to be investing in rooms that did not have to be rebuilt in the near future. There is the opportunity to achieve that with our rooms."

Until now, says Ms Brada, core team healthcare planner for Procure21+, the Department of Health's capital procurement framework, it has not been in anyone's commercial interest to determine the best design for mental health bedrooms and repeat it nationally. Instead, what commonly happens is that each trust goes through a lengthy and costly design and consultation process, typically based on local experience rather than the available research base.

However, since 2011, when the government issued the construction industry the challenge to reduce capital expenditure by 20 per cent by May 2015, Procure21+ has been working with "principal supply chain partners" – building contractors – to use standardisation and evidence-based design to bring down construction costs.

Procure21+ programme director David Kershaw says: "Rather than reinventing the wheel each time on a project, which is where we are in the NHS, we have been able to deliver something offline to a project, which we do not usually have the luxury to do. "We asked what can we do collectively to reach that level of cost reduction. Our thoughts turned to standardisation and we considered what would our starting point be in healthcare."

That starting point was to design the room from the inside out, asking what is the evidence, and what are patients' and clinicians' needs? "Our driver," says Mr Kershaw, "became not the capital cost, but can we produce a better environment with a lower cost?"

The resulting DH-backed Repeatable Rooms and Standardized Components initiative launched its first evidence-based repeatable room for acute hospital settings in February this year; it hopes to release the second phase of its repeatable rooms concept – the functional and organic mental health bedroom – before the end of 2014. (Functional refers to patients who have mental disorder that impaires normal functioning, as with schizophrenia; organic to a brain impairment, such as Alzheimer's).

Sources of savings

Savings for the mental health bedrooms will come from three streams: efficiency in design and consultation, reduced net areas and use of standard components. "Based on savings already achieved in the acute hospital en-suite bedrooms, we believe savings will be up to 9 per cent," says Mr Kershaw.

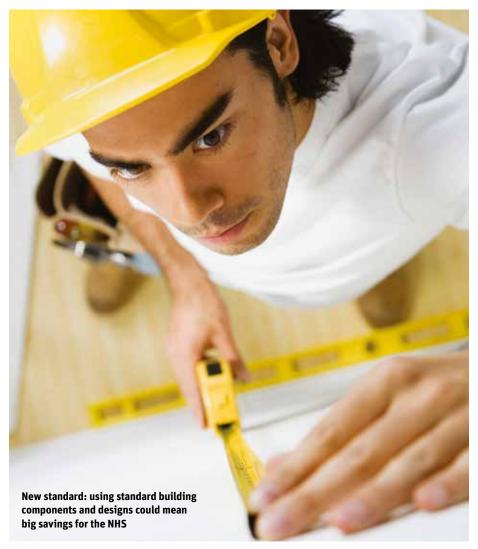
Procure21+ is in talks with manufacturers to agree a standardised components kit to tackle wide variation in specifics and prices for fixtures and fittings; for example, bespoke bedroom door sets range from £372











to £7,090; lights from £111 to £723.

Within mental health, notes Ms Brada, robust evidence-based design has additional significance.

"Considering the extent of mental health patients in our community and the current financial position, it means bricks and mortar have to be an active part of the therapy," she explains.

"We see these mental health rooms as part of the therapy. We need to keep patients safe but also very much at ease - it is incredibly difficult and a very great challenge to keep that balance."

As she points out, because of the relatively low numbers of mental health beds in England, typically when a person is admitted they are in crisis, hence safety has traditionally been the overriding design priority - which can lead to a very arid environment, rather than a therapeutic one.

The Procure21+ partners went through a rigorous design process. One strand involved a review of the evidence in collaboration with London South Bank University's medical architecture research unit. Surprisingly, though, other than research

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around the benefits of access to natural light, there was little robust data linking wellbeing with specific physical factors in the room. Because of this, there was an additional emphasis on engagement with service users.

To produce an "experience matrix", the group called for examplar mental health rooms, organised structured interviews with six mental health trusts, and held workshops with stakeholders and experts in mental health: healthcare architects, planners, estates and clinical staff, the Royal Colleges of Physicians and Nurses and the King's Fund. In total, around 150 people were consulted, a third of who were service users.

This information was then merged with the evidence matrix. This wealth of design data is now available to anyone, not just those using the Procure21+ framework, via a royalty free licence and application to the DH. Details can be found at www. procure21plus.nhs.uk/standardshare

Martin Norton, estates strategic development manager at South Essex Partnership University foundation trust was one of the experts consulted.

"I wanted to see a design that was affordable, flexible and adaptable, and incorporated the sort of features and products emerging in the mental health area - the latest lighting, technology, en-suite designs and anti-ligature fittings," he says.

Commenting on the final designs, he notes: "I think we have moved away from models that looked at very specific areas of mental health and designed accordingly. What we are moving towards is a more financially-driven process and more generic design that allows trusts to use accommodation more flexibly. This initiative is a very welcome one."

Flexibility is a core part of the design of the two mental health bedrooms, stresses Ms Brada. The rooms are suitable for either new builds or refurbishments, and while the designs are identified now as being for functional and organic patients staying for a maximum of four to five weeks, Ms Brada is optimistic the rooms could be flexible across the spectrum of mental health.

For patients who need a longer recovery time, there is a design option to extend storage space. Procure21+ is also working to confirm whether the bedrooms meet NHS minimum standards for forensic use.

Standardised acute rooms

With eight years ahead of it, Mr Kershaw says he is confident the initiative will not be just a single project programme. He confirms discussions regarding mental health repeatable rooms are underway with an NHS trust over a £30m project. The third phase of the programme - looking at emergency rooms has begun, and work is due to commence before the end of the year on design for an acute care eight bed cluster.

The first acute repeatable rooms are due to be completed in spring 2016 at Wrightington, Wigan and Leigh foundation trust. Two other NHS trusts - Scarborough Hospital and Basildon and Thurrock University Hospitals trust are starting to adopt the designs, as well as the first non-Procure21+ environment at St Luke's Hospital, Market Harborough.

If the concept of repeatable rooms and standardised components rooted in evidence-based design is successful, in 10 years' time hospitals in England will have begun to acquire a distinctive and increasingly familiar feel. ●

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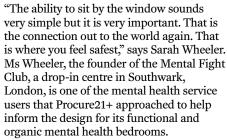




BUILDINGS: CASE STUDIES

ROOM WITH A VIEW

User influence lies behind bedroom design features such as more private storage for possessions, noticeboards that look like pictures – and, crucially, a window seat



"Most of us who have been in hospital know the rooms are very drab and basic," she says. "There's no thought about what it is like to come into them. I don't think you can understand what it is like to be in that room unless you have been a patient."

Over the last six months, Ms Wheeler and other service users have been talking with Procure21+, feeding in their lived experiences at all stages of the design process. This part of the process has been critical to the end scheme, says Procure21+ core team architect for Procure21+ Rosemary Jenssen.

"There have been small comments that have been gems. We have been lucky enough to be able to capture that and can now share it nationally. We want to open the eyes of trusts to what is possible."

One point to emerge repeatedly in discussions with service users was that typically trusts provide too much storage space. For those with very little, this unfilled space was seen as oppressive, leaving them thinking: "What does this room say about me?

"We found trusts very rarely briefed the

architects about the amount of storage required," says Ms Jenssen. The group went through the exercise of quantifying precisely how much shelving and wardrobe space is required in a short-stay room, and realised that trusts were often over providing in this area

Another comment from a service user about always having to have intimate possessions or clothes on full display, as typically all storage areas are open and facing outwards, has led to the team including some sideways-facing shelving to give a measure of privacy and restore some sense of control to occupants.

In the same spirit of not wishing to intimidate patients, a desk area has been developed not to look overtly like a work space, although it can be employed as such. Alternatively, it can be used as a dressing table, or utilised as a space where clothes can be laid out.

Likewise, a noticeboard above the desk and visible from the bed is now not the usual blank, white, overwhelming space if left unadorned by an occupant. Choosing a scene from nature as the background is a simple touch, but it is these small things that are being found to make a difference.

User engagement

What was of particular importance during the design process, notes Ms Jenssen, was exploring different ways of engaging with service users. With the help of the Mental Fight Club, meetings were held at its Dragon Cafe and were well attended and successful.



Service users were invited to comment on a series of free hand sketches envisaging the bedrooms from the occupant's perspective. In the later stages of the consultation, an interactive 1:6 scale model of the bedrooms, complete with artist's wooden figures, helped draw out any design hiccups.

"The penny dropped during this session," notes Ms Jenssen, "We had almost tried to over design from an aesthetic point of view. The service users came up with different positions for the furniture to make it feel more homely."

The resulting rooms, says Ms Wheeler, are a massive improvement on what is available, and feel "more like an affordable hotel than a prison'. Most importantly, she says, they bear clearly the imprint of feedback from service users.

Both the rooms, which are Health Building Note compliant, are en-suite, another factor that was highlighted as

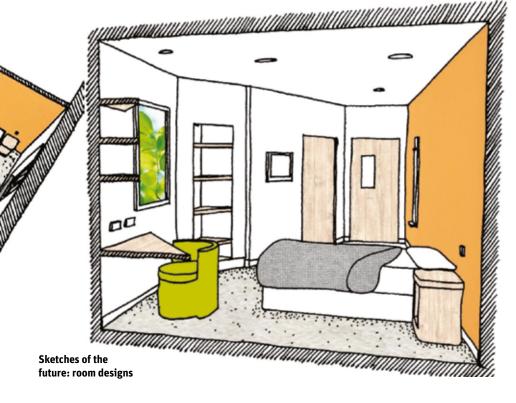
'If you could pick the room up and shake it, she says, the things that would fall out are those that trusts can make local decisions over'











you open the door there is a sense of entering a personal space. When you walk

in, there is a threshold. Over towards the window there is more of a private area."

'Looking out, getting a sense of the outside

world, of nature, and the seasons and time passing

is incredibly important'

The threshold provides a space where visitors and clinicians can wait to be invited into the room, as well as incorporating a piece of furniture designed like a traditional hall-stand, where outer wear can be placed.

Past the threshold, which has vinyl flooring, there is carpet in the bedroom zone of the functional room. This signals a private space, provides comfort and benefits the acoustics (another critical factor in mental health rooms).

We are trying to give service users back a sense of control," says Ms Jenssen. "We have tried to avoid the rooms going to the lowest common denominator from a risk averse point of view. Hopefully, what we have designed is a room that is therapeutic in terms of space and comfort while minimising the risk of harm."

Procure21+ is working with various manufacturers to improve the design of many common components. For example, says Ms Jenssen, "There is a shortage of aesthetically-pleasing, robust and antiligature light fittings.

The framework is also involved in developing a sliding anti-ligature pocket door to replace the HBN-required lock-back door, which is designed with suicide prevention in mind, but is bulky and has a custodial impact on the room.

Looking ahead, and considering the paucity of robust evidence around therapeutic design in mental health settings, Ms Jenssen is keen to carry out postoccupancy assessments of the rooms. What would be valuable to see, she says, is an evaluation of the effect of these rooms on the incidence of violence, aggression, self-harm or reliance on medication.

With this in place, the mental health repeatable rooms will have the best of both worlds - rooted firmly in the evidence base and bearing the stamp of approval from service users.

important by service users. The footprint of the functional room (combined bedroom and en-suite) is 15sqm; the organic room, where users are more likely to need assistance, is 18.1sqm, and is larger both within the bedroom and the en-suite.

A recent technical workshop, in which the rooms were physically tested out, highlighted the need for this more generous sizing. It ensures that there is room for two staff members to help an occupant, plus space for any required standing aids, and gives consideration to the increasing size of the population. "In terms of the physical room itself," says Ms Jenssen, "I think it is absolutely future proof."

The over-arching idea of the repeatable rooms and standardised components, she explains, is that one size fits all in terms of the physical dimensions and the proportions of the rooms, but that then there are a number of arrangement options for bed position, furniture alternatives, and a window seat that trusts can choose from, or adapt to meet their local needs. If you could pick the room up and shake it, she says, the things that would fall out are those that trusts can make local decisions over.

Recognising that different trusts have different policies, beds can either be against two walls or in a peninsula position, allowing clinicians access from both sides of the bed. Both bed positions enable a clear sightline to the door, as well as to the bathroom.

Each room incorporates the ability to sit by the window. In the functional design

there is the opportunity for trusts to select a window seat; with the organic room there is the possibility of a bay window, where a high-backed chair or wheelchair can be placed.

This, agrees Procure21+'s healthcare planner Stephanie Brada, is a very humanising feature. "We are encouraging people to focus at the window," she says. "It's dramatic the difference if people sit near a window. "Looking out, getting a sense of the outside world, of nature, and the seasons and time passing is incredibly important.

She concurs that the extensive engagement with service users has been the critical factor in influencing the final designs. "It is the little things we have learnt about that can make a difference. The devil is always in the detail," she says. "We have brought the voice of service users into the process."

"When people walk in to a mental health bedroom, they need a sense that they are being looked after as an individual, not being stripped of their identity. Service users told us that they ask: "Where am I in this room? Who am I? Am I worth it?

Zoning of space

Ms Brada points to another design feature that was gleaned from interaction with service users - the zoning of the rooms into public and private spaces which echo those found within the home.

"The layout of the mental health bedrooms gives service users cues for different spaces," she explains. "As soon as

ProCure21+

REPEATABLE ROOMS AND STANDARDISED COMPONENTS



The Department of Health and ProCure21+ Principal Supply Chain Partners have developed a set of Repeatable Room designs and Standardised Components to provide guaranteed high-quality estate to the NHS. A thorough briefing, planning and design exercise has brought together stakeholders and experts from across the healthcare sector to meet both clinical and care requirements and support improved healthcare outcomes.

Repeatable Rooms and Standardised Components are grounded in a literature review of evidence-based research in association with the Medical Architecture Research Unit at London South Bank University; are compliant with NHS buildings guidance; and have been rigorously tested to ensure each room accommodates a full range of activities.

... a well thought-out, realistic means of maintaining the quality of capital construction while improving on a high standard of patient care... I commend this initiative to the NHS.

Peter Hansford

Government Chief Construction Advisor

Room designs and components are available for acute and mental health environments forthcoming work is focused on emergency rooms and ward clusters.



Standardised co

A range of proven components that now offer significant potential cost reductions under t



Tarkett Flooring, offering vinyl and linoleum products with options for both capital and operational cost benefits and a fixed price, to end 2015 – savings up to 37%

Doors Five

preferred suppliers offering 14 standard doorsets – including options for finish, vision panels and noise/fire performance. Target savings up to 32%

Suspended

ceilings Rockwool Rockfon, offering a single tile system, with 30-year warranty, Class A1 fire resistance & Class A sound performance. Savings up to 27%

Lighting

Whitecroft Lighting, offering a range of UK-manufactured luminaires, all with LED options, with extended 5-year warranty. Savings up to 27%



Single bedroom

with en-suite

(three arrangements)

Consult/ exam room

(three arrangements, two options)

KEY FEATURES

- Evidence-based designs that improve patient outcomes
- Significant cost reductions
- Major benefits including quality, risk reduction, patient and staff safety
- Savings in procurement, consultation and programme time
- All functionally HBN-compliant and developed with thorough stakeholder input and rigorous testing
- **Free of charge** to the NHS when using the ProCure21+ framework
- Designs arrangements and all supporting documentation
 available free of charge to all healthcare providers

mponents

the ProCure21+ framework - £972,000 saved to November 2014

Sanitary ware

Pipe Centre and Ideal Standard together offering a range of UKmanufactured sanitary ware and stainless steel products. Savings up to 40%

Other components

A range of additional components including radiant panels, ceiling hoists, fire dampers, bedhead services. Savings up to 28%

Technical papers

Technical papers promoting cost savings in materials and system design for air-handling units, chillers and pipework – available on request I would like to see these good designs in use at local level, saving every Trust money that can be put into frontline patient care.

Doctor Dan Poulter, MP

mental health acute bedrooms

Parliamentary Under-Secretary of State for Health



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