

Cardboard Hospital

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Organisation: Pirkanmaa Hospital

Country: Finland

Level of government: Regional/State government

Sector: Health

Type: Methods, Public Service

Launched in: 2012

Overall development time: 8 months

Link to the innovation's website

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Description

The cardboard hospital provides an opportunity for staff and architects to meet with patients - as users of the hospital environment and services - and co-create the infrastructure. The central idea is that by constructing physical spaces, one is situated in the environments through all senses, thus enabling new ideas and their evaluation. Through prototyping activities that aim for a concrete end-result, the cross-disciplinary group has to negotiate differing needs in a constructive way.

The props work as representations that can be combined to achieve different elements of hospital spaces (walls, screens, tables, benches, ICT etc.) and they were coated with a film that allowed writing on them. The hospital management, architects and staff are able to co-construct a vision and requirements for future hospital environments through group discussions, visualisations and quick exercises.

Why the innovation was developed

The need for the method arose from the strategic aim of the hospital to put the patient in the centre of the operations. There was also ongoing planning of a new hospital wing, which was seen as a good piloting opportunity. Various prototyping methods were explored to answer this need.

Objectives

Develop staff capacity, Improve effectiveness, Improve efficiency, Improve service quality, Improve user satisfaction

- Improve service outcome: If the infrastructure supports patient needs, speed of admittance and recovery times will increase.
 - Improve service quality: By rehearsing new practices, staff are ready to work in the new building. Also, the infrastructure supports better service for the patients.
 - Improve user satisfaction: Hospital environments guided by patient participation provide better experiences. In addition, workshop participants expressed their enjoyment of taking part in the process.
 - Improve staff satisfaction: Employees enjoyed having a say in the hospital design in ways other than just evaluating plans on paper. They were able to bring in vital information about the challenges of their work.
 - Meet new regulations: New Finnish healthcare regulation is emphasising that the goal is to provide customer-centric services through whole healthcare system.
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Main beneficiaries

Elderly people, General population, Government staff

- Patients benefit from the design of spaces that account not only for efficient treatment but a holistic environment that takes into account their emotional and social needs.
 - Staff benefit by making sure that the design of the hospital suits their daily activities. During prototyping they can also create and rehearse new work practices so they can get used to their new environment.
 - Architects by gaining a better understanding of the issues that are important in hospital design. Through prioritised needs, they gain a framework from which to approach the design of the building.
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Existing similar practices

Mock-up Rooms for Prototyping Hospital spaces

In other countries' public administrations

Clarian-Arnett Hospital, USA

There is a physical prototyping lab situated in USA, which tests architectural plans for hospitals. However, their methodology comprises of collecting feedback from staff, not the ideation phase and not from patients.

<http://www.youtube.com/watch?v=N6q9ctveZeY>

Results

Efficiency

Architects, managers and developers understand more easily the treatment process, the needs of patients and staff, which enables a quicker designing process.

Service quality

Responsiveness:

Includes the patients in the design process, which supports the development of customer-centric hospital space and service development practices.

User satisfaction

- Patients were willing to come to workshops and they were touched that the hospital was interested in their opinion when developing practices and designing new facilities.
- Employees were pleased that they were able participate before new facilities are built. It was important that they could do this as a team.

Development

Design

The need for the method arose from the strategic aim of the hospital to put the patient in the centre of the operations. The innovation was a result of participatory design method expertise, set design expertise (based on the expertise of one of the researchers) and the forward thinking capability of the organisation.

Design time: 6 months

Testing

The pilot was based on tight collaboration between two designers and good project management. The leading Designer and set designer worked in collaboration with a manager and doctor from the hospital. Together they developed small prototypes of the workshop place.

Testing time: 1 month

Implementation

Tools used:

- Making cardboard elements and props, prototyping the theatre space.
- Workshops where the prototyping and the discussions took place with doctors, nurses, architects, patients and managers.

Resources used:

Overall cost of the pilot: EUR 30 000, which includes materials, transportation, food and beverages (this figure does not include the indirect cost for employee work time for planning and workshops).

Implementation time: 3 weeks

Challenges and solutions

Coming up with the right kinds of props and estimating the needed amount, which was countered through testing the concept with peers and through miniature scale models.

Switching from discussion and ideation to physical prototyping, which can be countered with efficient facilitation.

Partnerships

Architects

Private sector

Architects were involved in prototyping workshops.

Aalto University

Academics and Research Bodies

Aalto University School of Art, Design and Architecture was behind the development and implementation of the concept and provided the prototyping space.

Sitra

Other

Funding was received from the Finnish Innovation Fund Sitra for the development of the method.

Lessons Learned

Lessons Learned

The overall pilot can be considered a success. However, it was noticed that this kind of prototyping space should be an on-going process, taking place parallel with the building planning process.

Conditions for success

- Management support.
 - Early stage of the building planning.
 - Participation of all the stakeholders.
 - Processes for continuing towards implementation.
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Other information

As soon as publications are finalised, the method will be described in detail on the documentation web page: www.designforhealthcare.blogspot.com

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