



Health Prototyping Centre



# Curtain rail evaluation

Best practice for hazardous manual tasks

CASE STUDY

An initiative between eHealth NSW, Health Infrastructure, HealthShare NSW and NSW Health Pathology.

## Client name

HealthShare NSW

## Location

NSW, statewide

## Product/service delivered

Evaluation of ground-operated ward privacy curtain rail systems.

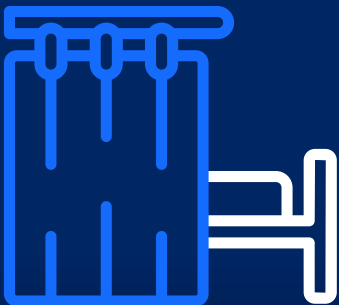
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## Key benefits of using the Health Prototyping Centre

- Provides a dedicated space, including a range of clinical simulation suites and equipment replicating common pathology, acute care, and home care settings
- Allows teams to focus on problem solving away from everyday working environments
- Enables the easy simulation of workflows
- Provides a team of technical and design experts to support the evaluation
- Supplies tools and technology to support the development of prototypes
- Includes replication of the NSW Health technology stack to support integration and functional testing
- Supports the recruitment of test users for projects –both patients and clinicians



## The context

In NSW Health facilities, Patient Services and Planning (PSP) staff use ladders to change privacy curtains in hospital wards. This creates a risk of falling from heights and suffering a serious injury.

HealthShare NSW's Strategic Plan 2020–2024 outlines a commitment to foster a culture of safety for its staff, with a goal to reduce the rate of workplace injuries by 20 percent.

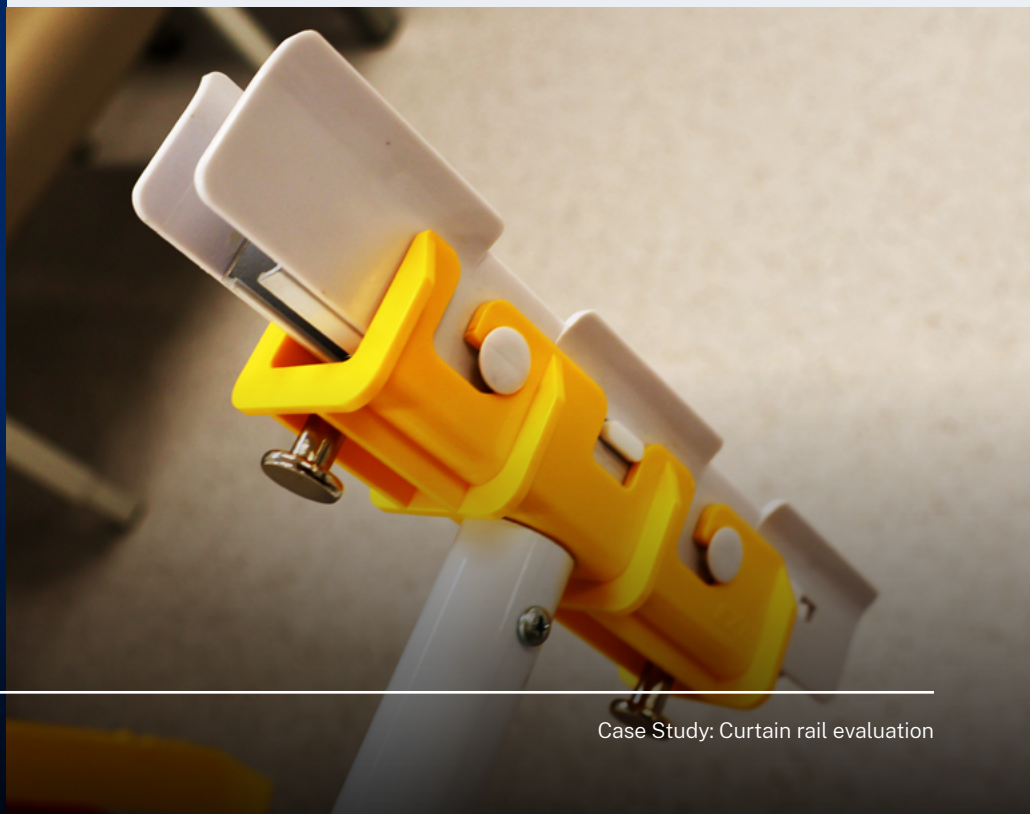
To remove the risk of a fall, ground-operated curtain rail systems, which are a newer product, had been installed in some new or refurbished hospitals. However, these systems demonstrated some issues. This led to the need to review the commissioning, installation and safe operation of curtain rail systems.

The review aimed to mitigate risks and realise the full benefit of these systems.

## The challenge

A key challenge was to identify a suitable location to conduct the review –whether in an actual or a simulated hospital ward area. Some of the prerequisites for the location were that it:

- allowed installation of the curtain rail systems correctly as per the manufacturer's specifications so that the systems could be assessed based on their merit
- was big enough to enable the stakeholder group to come together to hold meetings and brainstorm ideas
- allowed flexibility to make adjustments as the review progressed.





## The plan

HealthShare NSW evaluated 2 new curtain rail systems and a range of curtains and fittings at the Health Prototyping Centre (HPC).

The HPC provides a warehouse space that is highly configurable to a range of clinical scenarios. It has a team of technical and design experts to conduct evaluations. This model supports organisations to work together to develop solutions to meet their varying needs.

HealthShare NSW commissioned an independent ergonomics expert to facilitate the evaluation session.

The evaluation team included members from HealthShare NSW, Health Infrastructure and the Clinical Excellence Commission, with subject matter expertise provided by business, building infrastructure, frontline staff and safety experts.

Patient Services and Planning (PSP) staff members, who are responsible for changing ward curtains, participated in the testing.

Vendors for each of the 2 systems delivered a presentation, provided a practical demonstration of their systems and answered questions from participants.

## The process

The full-day evaluation began with a briefing from the ergonomics expert on the scope of the project and the results of inspections of installed systems at NSW Health hospitals.

The briefing included the metrics to be assessed and what participants should consider as they reviewed the systems.

All participants were given a standardised scoring sheet and note-taking template.

Vendors presented their designs to the participants, followed by hands-on use by PSP staff who operate the systems at sites.

On the surface both systems seemed similar. The review process allowed staff members to undertake a rigorous evaluation of the features and differences that affect the day-to-day operation of the systems.



*“Given Health Prototyping Centre (HPC) workspaces are non-operational and can be temporary, changes can be made during projects to facilitate an iterative approach. The ability to both tailor the layout and configuration as a starting point and then make changes for testing as required is a valuable tool for arriving at sound evidence-based outcomes.*

*The staff at HPC are extremely helpful and accommodating in coordinating the required resources and arranging the logistics for testing and review. This project shows the HPC is a valuable tool for developing and refining workplace layout, equipment and processes to undertake rigorous evidence-based inquiries leading improved workplace safety.”*

**Will Thomas, WHS Business Partner, HealthShare NSW**



## **The benefits**

The HPC facilitated a collaborative approach to evaluation, bringing all stakeholders together. The stakeholders included vendors, subject matter experts and HealthShare NSW staff who use the systems.

Using the HPC enabled the team to:

- have the space and support to trial and compare both systems rigorously
- take the time to understand in detail all issues related to ordering, installation, operation and tools/equipment required, as well as ongoing maintenance requirements
- gather evidence-based feedback to inform procurement decisions
- talk directly with vendors and manufacturers and discuss supply chain, sustainability and customisation options of the systems.



## The outcome

While both systems provided a marked improvement in workplace safety, there was clear consensus on the preferred system.

The preferred system:

- offered greater flexibility in curtain change location along the rail
- needed workers to apply much less force during curtain change
- had a more reliable supply chain based in Australia with the ability to use a range of hooks and curtains

- enabled more successful fitting of the curtain to the rail
- could be customised to meet the needs of different facilities, making it easier for retrofitting existing facilities where there are more constraints and;
- enabled easier training of staff.

HealthShare NSW has shared the findings with local health districts and speciality health networks, which will inform the procurement and installations of these systems across the state.



To find out more about the Health Prototyping Centre and how your project can access its facilities contact [ehnsw-hpc@health.nsw.gov.au](mailto:ehnsw-hpc@health.nsw.gov.au)