



Case Study

PROCUREMENT

PLYMOUTH UNIVERSITY AND WRAP

Raw materials risk in healthcare supply chains

- The aim of this exploratory study was to develop and test a method to identify items of frequent use in the NHS that pose high risk in terms of future availability, and to support decision-making for future planning for securing at risk items.
- The process was funded by 30K grant supplied through WRAP who is working in partnership with the Environment Agency to investigate different ways to cut waste.
- The project is known as European Pathway to Zero Waste (EPOW).

What was the issue being addressed?

An uninterrupted supply of essential items for patient care is crucial for organisations that deliver health and social care in the UK. Many products critical to healthcare are derived from natural resources such as oil and cotton, supplies of which

are vulnerable to climate change and increasing global demand. Initially this will impact on costs, adding a further burden to National Health Service (NHS) expenditure. Furthermore, some key resources may become unavailable, or the costs of acquiring them may become prohibitive.



“There is growing pressure globally on natural resources and we are already seeing the impact of this on the costs of delivering healthcare. This study will help to inform our work on supply resilience in the NHS.”

David Wathey
Department of Health
Procurement lead

How was the issue addressed?

The purpose of this study was to design and test a new methodology that has the potential to be replicated across a range of private and public sector organisations as well as public healthcare Trusts to:

- aid decision making to inform procurement priorities specific to an organisation’s unique requirements;
- ensure the un-interrupted supply of essential items;
- achieve continued product availability; and specific to the NHS,
- be utilised for training employees.

The method developed by the project team comprising Department of Health, NHS, other health organisations in Cornwall and WRAP included all items purchased by one acute Trust during the 2011

/ 12 financial year and followed specific steps:

1. Developed and tested criteria to identify ‘at risk’ products;
2. Assessed a number of high use healthcare items against specific risk and opportunity criteria;
3. Developed and tested a method that engaged healthcare managers and other private sector supply chain organisations in scenario based planning to ensure continued product availability;
4. Assessed the feasibility of realising identified opportunities for improving product supply and end of life models through the procurement function; and
5. Developed a methodology that has the potential to be replicated across a range of private and public sector organisations, particularly public healthcare settings.
6. Construct a number of scenarios designed to facilitate discussion about resource scarcity and consider mitigation for supply interruption.

The identified items were used in scenario-based workshops with clinicians and non-clinicians to raise awareness of the issues in relation to supply chain interruption and create teams who then might go forward to develop mitigation and adaptation strategies to meet the potential losses.



The method developed achieved its aim of identifying 37 items that might be at risk of supply chain interruption so that these items could be investigated further.

What was the result?

The methodology has provided the NHS partner in Cornwall with a clear set of priorities specific to their individual requirements. This enables them to consider where best to deploy resources to ensure continued product availability of business critical items.

The study scenarios developed in step 6 have been used to consider sustainability issues in teaching clinical skills within the nursing curriculum and the waste generated by skills sessions.

The scenarios are now embedded in the nursing undergraduate curriculum to support sustainability education in healthcare.

Whilst the methodology was developed in one healthcare setting, its applicability to both public and private sector organisations is evident to guarantee business continuity; plans to test the approach in other organisations are in development.

Once the methodology is further developed it can be used for informing (or updating) an organisation's procurement policy at a strategic level and importantly, provides a practical approach to delivering against a policy commitment. Applicable throughout the whole procurement cycle, the methodology brings together key stakeholders to address the procurement priorities and to identify and address critical items that pose high risk in terms of future availability, and to support decision making for future planning for securing at risk items.

Success factors

The method used was successful in identifying items for the pilot trust that were critical to healthcare and potentially vulnerable to supply chain interruption.

The method developed also highlighted:

- the significant value in involving multidisciplinary teams throughout the whole process;
- that key items that were deemed crucial to high quality service delivery and positive patient outcomes;
- that there were differences in opinions between clinical and non-clinical staff;



Further Work

The method could be refined and repeated in other areas of the UK to test its ability to adapt to local priorities, and differing sectors. A 'once only' approach in the first instance could identify 'at risk' products and develop national, regional and local responses.

A full range of scenarios should be developed which reflect current global realities and future potential issues, these should be used to focus thinking at senior management level.

The scenarios can be used to embed sustainability in the healthcare curriculum and used as training for procurement teams in other public and private settings.

In addition to items selected for the workshops, some of the items identified as being important to services delivery should be investigated further.

Analysing the component parts will further enable identification of materials which could be vulnerable to supply chain interruption.

Manufacturers' research and development teams should be involved in developing possible alternatives to some of the items. Procurement teams need to expand their membership to include for example, clinicians and finance officers, to identify areas where there can be a reduction in demand for items using scarce raw materials and to make contingency plans for future limited availability of vulnerable items.

SSHR
WITH
PLYMOUTH
UNIVERSITY



Contact Details

Dr Jane Grose
Research Fellow Sustainability and Health
Faculty of Health, Education and Society
University of Plymouth
Rm 010, 8 Portland Villas
Drakes Circus
Plymouth PL4 8AA
jane.grose1@plymouth.ac.uk