# oceansblue
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# How we're supporting research into different workforce configurations in acute hospitals

At Oceansblue, we're proud to be supporting supporting National Institute for Health Research (NIHR) funded research into the consequences and cost-effectiveness of different workforce configurations in English acute hospitals.

## The challenge

Currently, NHS workforce data exists in silos, which makes it difficult to see how variations in the size and make-up of care teams on hospital wards influences patient outcomes and the cost of care.

This information could help the NHS to optimise workforces to ensure patient safety and cost-effectiveness. As shortages of registered nurses often require hospitals to recruit agency staff, for instance, it would be useful to know "Do care quality indicators change if there's a high proportion of agency staff on shift?".

The University of Southampton therefore decided to carry out research to determine how a changing workforce can impact the safety of patients and costs for the NHS.

## Delving into the data

Oceansblue helps Trusts and Health Boards to get to grips with their data in order to optimise their e-rostering, which means we are the ideal fit to support the University of Southampton's research in this area.

Our AI-powered automated compliance management solution, Ward Guardian, was already collating and analysing workforce data within 50% of the Trusts that joined the research program.

We helped to streamline their research efforts by linking data from different sources and across different hospitals. By converging, cleansing and enriching this data, we provided researchers with fresh, holistic insight that serves as a foundation for machine learning algorithms and point research to help us better understand the NHS as a complex system.

## Next steps

An initial study found that in one hospital Trust, having a low registered nurse to patient ratio was linked to a higher risk of patients dying. They also discovered no evidence that increasing the number of nursing assistants per patient above current norms reduced this risk.

A wider study is now underway and is being expanded to more hospital Trusts, more staff groups, and more outcomes besides mortality.

Oceansblue will continue to support the University of Southampton in this project, which aims to further estimate the consequences, costs and cost-effectiveness of variation in the size and composition of the staff on hospital wards in England. The Trusts will be able to use these findings to improve patient safety.

**For more information...**

[1] Griffiths, P et al. (2018) Nurse staffing levels, missed vital signs and mortality in hospitals: retrospective longitudinal observational study. Health Serv Deliv Res 6 (38) https://doi.org/10.3310/hsdr06380

[2] Consequences, costs and cost-effectiveness of different workforce configurations in English acute hospitals: a longitudinal retrospective study using routinely collected data. Chief Investigator: Professor Peter Griffiths. https://www.journalslibrary.nihr.ac.uk/programmes/hsdr/NIHR128056/#/

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*Here's what **Christina Saville**, Research Fellow at the University of Southampton, had to say:*

"Oceansblue are helping us link rostering, PAS, Datix and third-party bank data – all with different naming conventions - then standardising this data across several Trusts. This is no mean feat. They applied their detailed knowledge of workforce systems to create a bespoke research dataset to our specification."