



The future of sustainable healthcare

It's all in the timing

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The environmental and financial sustainability of the National Health Service (NHS) in the UK is under threat. The Five Year Forward View set out two years ago to manage increasing activity is set to fail. Meanwhile, the NHS emitted 25 million tonnes of CO₂ this year, making it the largest public sector contributor to climate change in Europe. And at the same time, clinicians are being pushed to provide seven-day services on five days' worth of resources. Financially, environmentally and clinically, the future for the NHS appears unsustainable. New ways of managing demand for healthcare services are desperately needed.



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Stanley Blue is a lecturer in Sociology at Lancaster University. He is currently a visiting fellow at the Centre for Urban Research at RMIT University working with the Beyond Behaviour Change research program. His research is concerned with how social routines and practices constitute everyday ways of living and consuming that matter for issues of environmental sustainability and public health. The Institutional Rhythms project, which is part of the DEMAND centre, examines the scope that large institutions have for shifting the timing of working arrangements to reduce demand for energy and travel.

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New research at Lancaster University in the UK is investigating the scope that hospitals have for managing demand for energy, travel and other resources.

Current models of sustainable healthcare are built on two approaches. The first advises investment in increasing the energy efficiency of buildings and equipment despite research that shows how this often increases demand for services. The second approach advises investment in programs to help staff change their unsustainable behaviours. But such an approach misses the point that staff are not just ‘wasting’ energy but using it in the course of delivering healthcare.

The Institutional Rhythms project examines how hospitals shape the timings of working arrangements that matter for energy demand. This work, based in the DEMAND research centre at Lancaster University, explores how patterns of energy demand are constituted by the interconnected timings of activities that occur within and beyond the hospital. These include schedules between departments, hospital opening times, the organisation

of patient pathways and broader societal temporalities including changing seasons, school holidays and the weekend.

Peaks in hospital energy demand are constituted by the synchronisation of energy-intensive activities including running operating theatres, decontamination services, radiography and laundry services. When these activities occur depends on interconnected and synchronised patient flows between departments, but also on those broader temporalities including the availability of childcare at the weekends. Hospitals can use up to 80% less energy at the weekend when the majority of elective services are not running, or are running at a reduced capacity.

Opportunities shaping the timing of activities might include running energy-intensive services outside of times of peak activity. Decontamination services might be able to operate more intensively over weekends to reduce peaks in energy demand, associated emissions and costs. Visiting hours and deliveries could be scheduled so that they

do not coincide with peak traffic and reduce congestion.

But beyond this, an approach that seriously considers the timings of hospital activities has the potential to significantly reconfigure working arrangements to increase patient flow through the hospital. Problematic peak times of activity for hospitals such as the weekday discharge can also be examined as the outcomes of critical intersections, interdependencies and fixities in the timings of working arrangements. New opportunities for reconfiguring working arrangements to differentiate and stagger the discharge process emerge when viewed in this way.

In a context of increasing activity within the NHS and as calls for a seven-day (elective) service intensify, there is now a significant opportunity to further study how the timings of working activities might be radically reconfigured to reduce demand for energy and travel, to save costs and to improve patient care and experience.