Loughborough University project aims to cut emergency hospital admissions

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Loughborough University along with Healthwatch Leicestershire and Leicestershire County Council have been awarded £70,000 for a major new study evaluating how emergency admissions to hospitals can be reduced.

The initiative will assess patient journeys through community based services as alternatives to admissions through Accident and Emergency (A&E) departments.

Supported by SimLean – a computer modelling and simulation program developed by the University – alongside interviews and focus groups, the study will investigate how the patient journey can be improved.

It will also look at how the principles of ‘Lean’ – creating better value for service users whilst generating no waste in resources – can be applied to integrated health and care services.

The project builds on original work by Professor Zoe Radnor, co-director of the University’s Centre for Service Management and Professor Stewart Robinson, Associate Dean for Research. Both are based in the University’s School of Business and Economics.

Professor Radnor explains: “Currently problems begin at the hospital door, but work needs to start before then, in areas such as community care and preventative measures.

“Our new project allows modelling of the patient journey from start to finish through the healthcare system to provide an interactive and dynamic process map, making it possible to see where problems exist or good practice is in place. The model offers a ‘what-if’ scenario tool for experimenting and testing out new processes.”

This new funding has enabled Loughborough University to join forces with Healthwatch Leicestershire and Leicestershire County Council to utilise SimLean to evaluate and help improve the patient journey across the county.

As part of Leicestershire’s Better Care Fund programme there is a need to test the impact and effectiveness of new integrated care interventions on the health and care system, including the experience of service users. A key target for the Better Care Fund programme is to reduce emergency admissions to hospital through the implementation of four interventions:

- **Falls** – implementation of a new care pathway with East Midlands Ambulance Service to support people who fall at home/in the community.
- **Integrated crisis response** – combined health and social care support for up to 72 hours in a care crisis to avoid admission to hospital.
- **Rapid assessment service for frail older people** – a one stop clinic in Loughborough for GP referrals to get comprehensive assessment of individuals, with geriatrician opinion and diagnostic support – provided as an outpatient service in order to avoid admission to hospital.
- **Seven day services in primary care** - pilot schemes in both Clinical Commissioning Groups to test how their localities can offer services and support on a seven day basis to patients with complex needs.

SimLean will be used to evaluate the effectiveness of these interventions in reducing emergency admissions to hospital. It will also be used to capture the experiences of patients to support the development of patient-centred integrated services in health and social care in Leicestershire.

Professor Robinson added: "We are delighted to receive this funding. SimLean has the potential to transform how healthcare is managed and provided across the UK and it is fantastic to be able to work with Healthwatch Leicestershire and Leicestershire County Council on this exciting project."
Vandna Gohil, Director of Healthwatch Leicestershire, said: “Patients are direct recipients of services and therefore in the best position to provide suggestions for improvements. Healthwatch Leicestershire is excited to be part of an innovative project with a focus on the patient experience and fully supports the development of new models and tools. We look forward to being able to share the results of this partnership, which will help transform future service delivery.”

A Leicestershire County Council spokesman added: “This research will assist NHS and local authority commissioners to make evidence-based decisions about future integrated care pathways, and will ensure the patient’s perspective and experience forms a central part of our decision making.”

The funding has been awarded by the University’s Enterprise Projects Group (EPG), which manages and allocates funding received from the Higher Education Funding Council for England (HEFCE) Innovation Fund and the Engineering and Physical Sciences Research Council (EPSRC) Impact Acceleration Account.