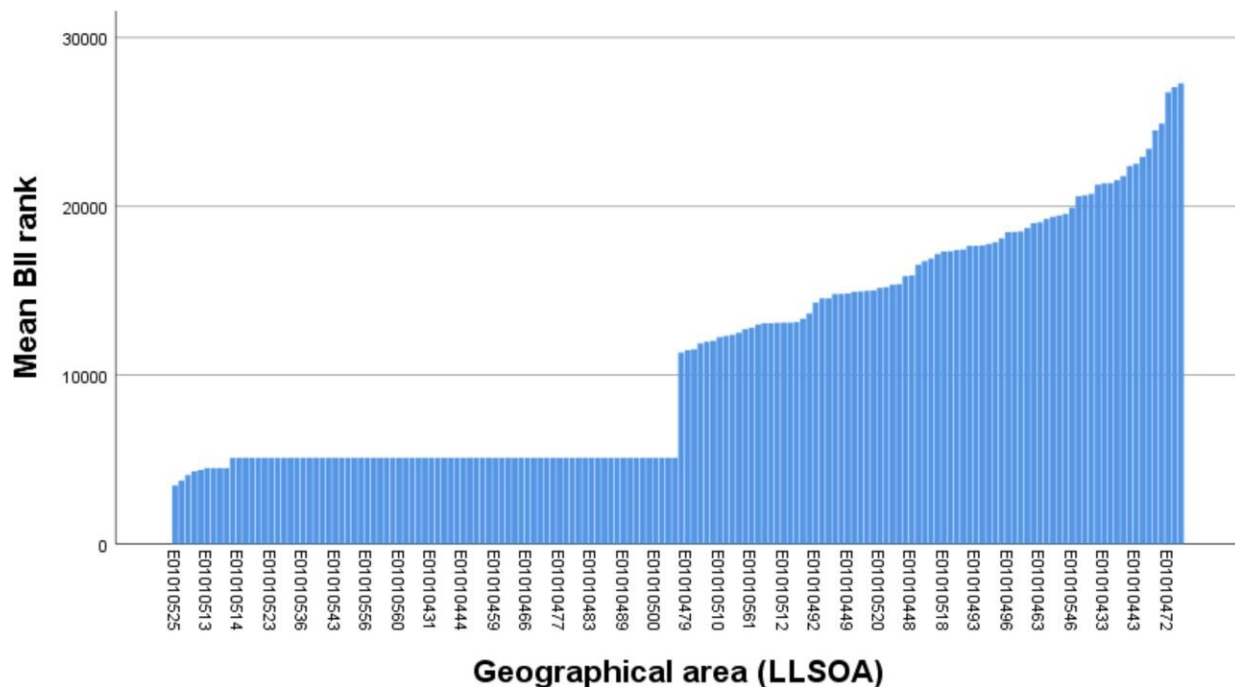


# Study identifies link between poor broadband provision and ill health

November 2 2022



Demonstrating the dichotomized distribution of the Broadband Infrastructure Index (BII) and its suitability for binary logistic regression analysis. LLSOA, lower layer super output area. Credit: *BMJ Open* (2022). DOI: 10.1136/bmjopen-2022-065709

Poor broadband provision is associated with people living with a number of health conditions and urgent care needs, a study published today (November 2, 2022) has found.

This whole local population level [observational study](#) is the first to link data on broadband provision with [health data](#) at a defined health economy population level. It used data for all residents of the City of Wolverhampton, some 269,785 people.

The study, published in *BMJ Open*, was conducted as part of the Wolverhampton Digital Enablement (WODEN) Program—a multi-agency [collaborative approach](#) to determine and address digital factors that may impact on health and [social care](#) in a single deprived multi ethnic health economy. The study aimed to determine the association between measurable broadband provision and demographic and [health outcomes](#) in a defined population.

Study author Dr. Fraser Philp, Lecturer in Physiotherapy at the University of Liverpool said, "It is essential that health care authorities avoid widening historical, present and future societal health inequalities, as digital solutions become increasingly embedded in health care. Identifying [appropriate measures](#) for evaluating broadband provision, which ultimately influence access, is an important part of this."

## Findings

Broadband provision was measured using the Broadband Infrastructure Index (BII) in 158 City localities housing a total of 269,785 residents. Lower broadband provision as determined by BII was associated with the following attributes: younger age, white ethnic status, lesser deprivation as measured by the Index of Multiple Deprivation, a higher number of health comorbidities and more non-elective urgent events over 12 months.

Corresponding author Professor Baldev Singh MD FRCP, Consultant Physician and Clinical Director of Information Services, The Royal Wolverhampton NHS Trust said, "Health and Care systems have an

ethical obligation to provide equitable care. The rapid developing technology driven changes in such services open access to better care to so many. However, we need to remember that some people, for many differing reasons, are disenfranchised and so become excluded by such developments. The WODEN project is a multi-agency project in Wolverhampton that will work to better understand the risk of digital exclusion and strive to prevent it."

The WODEN team has advised local municipal and [health authorities](#) to consider the variations in broadband provision within their locality and determine equal distribution on a geographical basis but also against demographic, health and social data to determine equitable distribution as a platform for equitable access to digital resources for their residents.

**More information:** Fraser Philp et al, Observational cross-sectional study of the association of poor broadband provision with demographic and health outcomes: the Wolverhampton Digital ENablement (WODEN) programme, *BMJ Open* (2022). [DOI: 10.1136/bmjopen-2022-065709](#)

Provided by University of Liverpool

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