

## ● Health and the local physical environment

Health practitioners and decision makers are benefiting from the work of geographers who, for the first time, have developed a way of assessing the extent to which the physical environment of a local area may impact on the health of local residents.

**Key words:** local environment; health; well-being; quality of life; social benefit

The places where we live are important to our health, both in terms of the likelihood of getting ill and of dying younger.

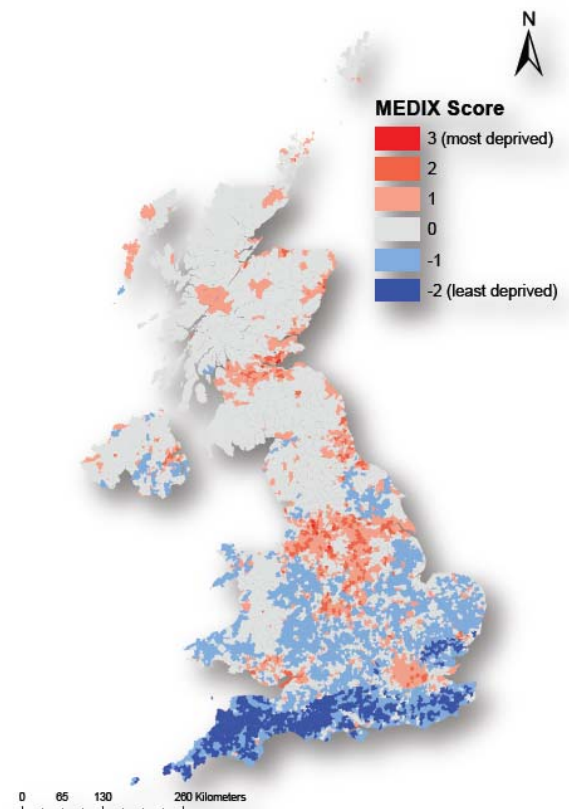
Historically, data on health variations across the UK has tended to focus on the relationship between health and the socio-economic characteristics of the residents of different neighbourhoods. Deprivation has traditionally been identified as the key factor explaining differences between areas.

However, what this long-standing approach to examining health variations across the country failed to provide is a causal explanation of these differences based on the specific physical factors likely to cause ill-health or promote good health.

Professor Richard Mitchell, University of Glasgow, and Dr Elizabeth Richardson, School of Geosciences, University of Edinburgh, both of the Centre for Research on Environment, Society and Health, have worked as part of an interdisciplinary team alongside epidemiologists to address this gap. Their work has led to the creation of a new methodology for measuring the links between health and the physical environmental factors likely to impact upon it. This is known as the Multiple Environmental Deprivation Index (MEDIX).

MEDIX summarises how healthy or unhealthy a local physical environment may be. It includes factors both considered bad for people, such as air pollutants or proximity to industry (pathogenic factors), and those good for people, such as availability of green space (salutogenic factors).

Each environmental indicator has been recorded for the whole of the UK at the small area level, aligned with each of the 10,654 UK Census Area Statistics wards, each containing an average population of about 5,500.



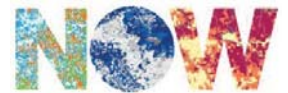
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MEDix has identified that environmental deprivation - highest where there are high levels of pathogenic factors and low levels of salutogenic factors - makes a direct contribution to the risk of many common causes of death, such as heart disease and some cancers. This is over and above the relationship which exists between the incidences of these diseases and how wealthy or poor we are.

By establishing the way in which physical factors either make people sick, or keep them healthy, and identifying the areas of the UK where these are most significant, policy measures to improve health can be targeted on improving those areas with the worst physical environments. For example, MEDix data is being used by the Scottish Public Health Observatory to provide public health professionals with data and statistics on which to make decisions. South Lanarkshire is one council already identifying where the worst environmental degradation can be found, in order to focus improvements on those areas likely to have the greatest impact on improving health.

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- [Professor Richard Mitchell](#), University of Glasgow
  - [Dr Elizabeth Richardson](#), School of Geosciences, University of Edinburgh
  - Both are both of the [Centre for Research on Environment, Society and Health](#). MEDix data, and links to publications about the work, are [freely available from the Centre's website](#).
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