

Can public health be improved by linking health data to where people live?



What's the issue?

Many of the biggest drivers of poor health, like poor housing quality, air pollution, reduced access to green space and transport, are outside the healthcare system. To prevent illness and reduce inequalities, health services need to understand how these environmental factors affect people over time. However, in England, it has been difficult to link people's health records to information about their homes and neighbourhoods. This has limited the evidence to guide effective healthcare policies to keep people healthy and well.

What's new?

With strong privacy and security protections, the GroundsWell Team have created a safe and secure way to link health records with information about where people live. Working with NHS England, regional health care boards and data providers, it uses unique property identifiers to study health at household level, rather than relying only on area averages.

Why is this important?

At the moment, health analysis often uses averages for a neighbourhood or postcode, but this might not reflect the situation for everyone in that area. With this new data linkage system, health records, detailed information about housing and the environment at household level can all be combined. This makes it possible to track changes over time, understand population movement and avoid misleading conclusions. This supports better evidence to prevent illness, reduce inequalities and to build healthy cities: all NHS Long Term Plan priorities.

What would we miss without this linkage?

If a new housing estate is built next to a busy road, people will move in from many different places and some may already have long-term health conditions. Without knowing when they moved in, we might wrongly assume those conditions were caused by the road, even if they arrived yesterday. Compare this with an older estate built next to a busy road in the 1960s where many residents have lived for decades. In that case, long-term exposure to traffic pollution really could be affecting their health. If we cannot tell the difference between these situations, the real links between environment and health can be hidden. Our system means this won't happen.

What's next?

With the linking system now in place, the main challenge is how this can be prioritised and used by the NHS. Over time, this will support a health system with evidence about where people live, to deliver smarter and fairer public health decisions.

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