

# China study improves understanding of disease spread

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Scientists at the University of Liverpool have shown how the travel and socialisation patterns of people in Southern China can give greater insight into how new diseases such as bird flu may spread between populations.

Southern China is one of the most important regions of the planet for the development and spread of new diseases in humans. In recent years a combination of high population density, frequent contact between

humans and animals and the developed transport links in the region have given rise to diseases such as SARS and [avian flu](#), and their rapid spread.

## Contact and travel

To find out more about how these diseases can spread among communities, researchers from the University of Liverpool's Institute of Infection and Global Health surveyed 1,821 people in Guangdong to find out how many people they came into contact with each day and how far they travelled.

Epidemiologist, Dr Jonathan Read led the research. He said: "Southern China is a hotbed for new diseases, but the way in which people move around and interact in the area is poorly understood.

"This makes it very difficult to make accurate predictions as to how fast and in which directions they will spread."

The surveys found that most people met around ten others each day and spent between five and ten hours a day with other people. People from rural areas were more likely to travel further to meet people and younger people were more likely to have more interaction with others.

The information gathered in the surveys will be used to add key data to mathematical models of [disease](#) spread, giving more detail and accuracy to patterns in this highly important region.

Dr Read concluded: "The next [flu pandemic](#) may well come from Asia so the more we know now about how [flu](#) and other infections may spread in this region, the better prepared we are to limit them and save lives."

The study was published in the journal *Proceedings of the Royal Society*

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Provided by University of Liverpool

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