

## Pandemic's Economic Impact Could Linger for Decades



Social networks can be an important determinant of a country's growth. Not only do they help diffuse ideas and push progress, but a new paper argues that they can also play an active role in diffusing diseases that can rapidly spread and dampen growth.

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Contributors to the <u>article</u> in the *Review of Economic Studies* hypothesised that as ideas and germs diffuse through the same human interactions, the network structure of a country ultimately depends on its epidemiological environment.

Utilising social network data from 71 countries, researchers were able to demonstrate that small initial differences in a nation's epidemiological environment can trigger considerable differences in social network structure that, long after the disease itself is eradicated, can substantially alter technological diffusion and economic output for generations. For instance, a one-standard-deviation change in social network structure can increase the growth of output per worker by up to 2% per year.

The paper also shows that how networks affect economic growth in a given country depends on the disease environment. In low disease countries, high diffusion networks promote the dissemination of new ideas and enhance growth. However, in a place where disease is prevalent, networks can also lead to epidemics and humanitarian crisis.

Doubling the number of highly mobile or connected individuals raises growth rates substantially. But in a high-disease environment (using Ghana's 18 percent prevalence), altering the social network to facilitate faster diffusion lowers national income. Doubling the number of highly connected people causes output to fall by 90 percent.

"Germs, networks and growth are deeply interconnected," says Alessandra Fogli, Study Lead Author. "S trong networks have allowed our global economy to grow at an unprecedented rate. But they have also made it more vulnerable to the diffusion of new diseases. As social networks adapt to the new epidemiological environment, the COVID-19 pandemic can have long term consequences on economic growth."

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