

Mobile data shows high compliance with lockdown rules across the UK

June 1 2020, by Hayley Dunning, Dr Sabine L. Van Elsland



Credit: AI-generated image

People across the UK drastically reduced their movement outside of home following lockdown, although slight rises have occurred since April.

Initial compliance with COVID-19 social distancing was high and



geographically consistent throughout the United Kingdom, the Imperial College London COVID-19 Response Team has found.

Mobility—a measure of the extent to which people are moving beyond the home—dropped to 15% of the norm during the first weekend after lockdown was enforced. Since then, mobility has remained low but has consistently increased at gradual rate since the lockdown was implemented.

The Imperial findings provide a baseline to monitor <u>behavioral changes</u> in the United Kingdom as social distancing is eased.

The findings, drawing on anonymised and aggregated crowd-level mobility data from mobile phones, come in the latest report from the WHO Collaborating Centre for Infectious Disease Modelling within the MRC Centre for Global Infectious Disease Analysis, Jameel Institute (J-IDEA), Imperial College London.

Highly synchronized across the UK

Since early March 2020, the COVID-19 epidemic across the United Kingdom has led to a range of social distancing policies, which have resulted in reduced mobility across different regions. Data on mobile phone usage can be used as a proxy for population mobility patterns and provides a way to quantify the impact of social distancing measures on changes in mobility.

The latest report by Imperial researchers assesses changes in average mobility across the United Kingdom and for high- and low-population density areas, and also measures changes in the distribution of journey lengths.

Researchers show that there was a substantial overall reduction in



mobility with the most rapid decline on the 24 March 2020, the day after the Prime Minister's announcement of an enforced lockdown. The reduction in mobility was highly synchronized across the United Kingdom.

Benjamin Jeffrey from Imperial said: "There was a dramatic reduction in mobility in mid-March across the whole of the UK, coinciding with the introduction of movement restrictions. However, since the beginning of April the amount of daily movement has increased steadily at a rate which appears to be accelerating over time."

Dr. Kylie Ainslie from the School of Public Health Imperial said: "Mobility patterns during the COVID-19 epidemic have been remarkably similar across all regions of the UK. The mobility patterns observed are characterised by a sharp drop following the Prime Minister's announcement of a lockdown with a steady increase in mobility ever since."

Responses to lockdown easing

Although mobility has remained low since 26 March 2020, the report describes a small but consistent increase since that time. High-density areas show a slightly larger reduction in mobility compared to low-density areas. Greater variation in mobility is shown in the high-density areas: some high-density areas eliminated almost all mobility.

These analyses form a baseline with which to monitor changes in crowd level movement in the United Kingdom as social distancing is eased.

Professor Steven Riley from the School of Public Health at Imperial said: "This study shows how effective the messaging was on 23 March for people to stay at home. Even though there has been a slight increase since then, compliance has been very good up to 16 May, which is the



end of the period of this study. These types of data will tell us how people are responding to the new messaging to relax social distancing."

Since the emergence of the new <u>coronavirus</u> (COVID-19) in December 2019, the Imperial College COVID-19 Response Team has adopted a policy of immediately sharing research findings on the developing pandemic.

Report 24 can be read on the <u>Imperial College COVID-19 Response</u> <u>Team webpages</u>.

Provided by Imperial College London

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