

Coronavirus and self-isolation after testing positive in England methodology

Latest quality and methodology information on data from the COVID Test and Trace Cases Insights Survey and its use to examine the adherence to self-isolation guidelines. Experimental statistics.

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1 . Overview of survey information

The COVID Test and Trace Cases Insights Survey was compiled in response to policy questions on the level of adherence with self-isolation requirements, the prevalence of behaviour that poses a risk of transmitting coronavirus (COVID-19), and the impact of self-isolation on well-being and finances. It was produced, run and analysed in a collaboration between the Department for Health and Social Care (DHSC), Public Health England (PHE) and the Office for National Statistics (ONS).

This survey was specifically designed to obtain information on people who have tested positive for COVID-19 and who are at or nearing the end of their 10-day self-isolation period. ONS experts were consulted on questionnaire design. The survey respondents were selected using implicit stratification from a list of adults (aged 18 years and over) who had tested positive for COVID-19. Respondents were contacted by telephone and all answers are self-reported.

The first wave of the survey was conducted as a pilot using a different sampling methodology and the estimates presented were not weighted. As a result, the data contained in subsequent bulletins are of better quality but are not directly comparable with the data presented in the first bulletin of the series.

Estimates and margins for error

Percentages in these reports are weighted to address age, sex and regional bias in response rates.

As with all surveys, these estimates have an associated margin of error. Significance testing and confidence intervals have been used to test for differences. Where a difference is [statistically significantly](#) different, we can be more confident that the difference really exists.

2 . Definitions and terms used

Understanding of self-isolation requirements

Respondents to the survey were asked what activities they believed were allowed during self-isolation (from a list of reasons for leaving the home). For the purpose of this analysis, respondents were categorised as having fully understood self-isolation requirements if they did not select any reason for leaving the home that is not permitted during self-isolation (such as going to work or to the shops).

Prior to wave 3, the measure of understanding also took account of whether the respondent reported the correct number of days that someone should self-isolate. This question was removed from the survey in wave 3 to reduce respondent burden.

To improve the accuracy of estimates, reasons presented to respondents were updated in waves 3 and 6. In wave 3, a question on leaving the house for medical reasons was changed to specify "non-emergency medical reasons" (instead of any medical reasons). In wave 6 one reason was added ("for other essential household responsibilities") and another removed ("to help or provide care for a vulnerable person"), to better reflect common reasons for leaving the house as reported by respondents in previous waves.

Adherence with self-isolation requirements

Respondents were categorised as having adhered to the requirements of self-isolation legislation if they:

- did not leave their home during self-isolation, except to get or return a test for COVID-19 or for an emergency medical reason
- did not receive any visitors during self-isolation, except for visitors supporting their personal care

Prior to wave 6 of the survey, respondents were not able to select "emergency medical reasons" as a reason for leaving the house and may have been mis-categorised as non-adherent if they left for that reason only. In wave 6, leaving the house for "emergency medical reasons" was added as an option for respondents to choose. This change has had no statistically significant impact on estimates of adherence in wave 6.

Individuals who left their home or had visitors for other reasons may have adhered to the requirements if they did so because of exceptional circumstances. This means a small number of individuals may be miscategorised as non-adherent. While we have made improvements to reduce over-estimation of non-adherence, some may still occur.

For those who reported having a high temperature, a new continuous cough or loss of sense of taste or smell prior to their test, adherence is measured from the onset of symptoms. Not all respondents reported having these symptoms prior to their test. For respondents who did not report one of these three symptoms, adherence is measured from the point of receiving a positive test result.

Adherence is measured until the end of self-isolation, or until the point of the survey if isolation is ongoing.

For further information please see [The Health Protection \(Coronavirus, Restrictions\) \(England\) Regulations 2020](#).

Contact with non-household members

For the purpose of this analysis, avoidable contact was considered. This contact with non-household members was defined as either:

- having physical contact for any length of time (for example, shaking someone's hand, hugging someone) during a trip out of the house
- being within two metres (six feet) of someone for at least a few minutes during a trip out of the house
- having visitors to the home, if the visitors were not providing personal care\ This definition differs slightly from the definition of a contact for the purpose of NHS Test and Trace. For more information see [guidance for contacts of people with confirmed coronavirus \(COVID-19\) infection who do not live with the person](#).

3 . Identifying individuals at the end of their self-isolation period

Respondents were sampled using implicit stratification through the Contact Tracing and Advisory Service (CTAS) database, held by NHS Test and Trace. This database was created by NHS Test and Trace to record information about people who have tested positive for coronavirus (COVID-19) and the people they had been in contact with. The sample was limited to those who had provided a valid phone number and who had been entered onto the CTAS database at the point of sampling.

4 . Strengths of the survey data

The main strengths of the COVID Test and Trace Cases Insights Survey include:

- timely production of data and statistics that can respond quickly to changing needs, as the questions included are reviewed for each wave
- the sample was stratified to be representative of the age, sex and regional distribution of the population being sampled
- percentages are based on weighted counts representative of the population
- the assessment of behaviour throughout the stages of the self-isolation period, allowing to see when adherence is highest
- undertaking quality assurance procedures throughout the analysis stages to minimise the risk of error
- using confidence intervals to determine whether differences across time periods and groups are statistically significant

5 . Limitations of the survey data

The main limitations of the COVID Test and Trace Cases Insights Survey include:

- the behaviour of respondents during self-isolation is self-reported and may be subject to recall-bias, which influences how accurately respondents are able to recall past events and experiences; most interviews took place within four days of the end of self-isolation to reduce this bias
- only participants who appear in NHS Test and Trace's database were invited to take part which will exclude, for example, people who have coronavirus (COVID-19) but who do not request a test
- respondents may be unwilling to report illegal behaviour, for example, leaving the house during a self-isolation period; this is also known as social-desirability bias
- because of the limited period in which fieldwork took place, it is difficult to reach a large number of people and therefore the overall sample size for the survey is limited
- the Experimental Statistics presented in this bulletin contain uncertainty; as with all survey data based on a sample, there is an element of uncertainty as they are susceptible to respondent error and bias

6 . Related links

[Coronavirus and self-isolation after testing positive in England](#)

Bulletin | Released once a month

Behaviour of individuals required to self-isolate after testing positive for COVID-19, from the COVID Test and Trace Cases Insights Survey. Includes information on the impact of self-isolation on well-being and finances. Experimental Statistics.

[Coronavirus \(COVID-19\) Stay At Home guidance](#)

Webpage | Updated 21 April 2021

Guidance for households with possible or confirmed coronavirus (COVID-19) infection.

[Coronavirus \(COVID-19\) latest data and analysis](#)

Webpage | Updated as and when data become available

Latest data and analysis on the coronavirus (COVID-19) in the UK and its effect on the economy and society.

[Coronavirus \(COVID-19\) roundup](#)

Blog | Updated as and when data become available

Catch up on the latest data and analysis related to the coronavirus pandemic and its impact on our economy and society.

[Coronavirus \(COVID-19\) latest insights](#)

Interactive tool | Updated as and when data become available

Explore the latest data and trends about the coronavirus (COVID-19) pandemic from the ONS and other official sources.