



UK Health
Security
Agency

NHS Test and Trace laboratory and contact centre utilisation

Published 7 February 2022

Contents

Introduction	3
Background on laboratory and contact centre utilisation	3
Laboratories	3
Contact centres	5
Data	7
Methodology	7

Introduction

In this ad hoc statistics publication, we present data on utilisation performance for the first 9 months of financial year 2021 to 2022 across laboratories and contact centres in the context of the unpredictability of waves (and subsequent falloffs) in coronavirus (COVID-19) cases. A formal definition of utilisation can be found in the Methodology Section.

Utilisation of laboratories is not usually published at any level of granularity below the total number of tests processed by the network. To provide greater clarity on the use of commercial capacity (contracted on a flexible basis with no fixed costs for non-use) this publication presents a summary view of utilisation for period April to December 2021, split between the 'core' Lighthouse Laboratory network and commercial 'Surge' laboratories.

Background on laboratory and contact centre utilisation

The Public Accounts Committee (PAC) report published on 27 October 2021 recommended that UKHSA establish and monitor clear utilisation targets for both the laboratory and contact centre capacity it pays for. It recommended that UKHSA write to the committee in January 2022 to provide an update for laboratory and contact centre utilisation for the first 9 months of 2021 to 2022.

This ad hoc publication presents the data and analysis that was provided to the PAC in UKHSA's response. We are publishing this to support the transparent release and use of new statistics and data.

Laboratories

Table 1 shows the utilisation of the network of laboratories over the period of April 2021 to December 2021. This data illustrates utilisation capacity over each monthly period as well as the peak daily utilisation experienced within that period. The planned maximum operational utilisation is 80% to allow for maintenance, training and other ongoing activities.

Table 1. Total monthly laboratory average and daily peak utilisation, April 2021 to December 2021

	April 2021	May 2021	June 2021	July 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021
Sample processed	5,167,028	5,448,141	6,892,212	9,283,724	7,399,639	9,517,504	10,022,657	9,199,058	13,210,251
Average utilisation (%)	39	40	61	66	46	53	48	54	69
Daily peak utilisation (%) ¹	52	58	86	86	59	65	62	79	83

Table 2 provides information on how to allocate test demand across the differing categories of laboratory to maximise the usage of the core Lighthouse Laboratory (LHL) network and minimise usage of ‘Surge’ capacity (laboratory capacity that is contracted on a flexible basis and incurs no cost when not utilised).

Core Light House Labs are those that are contracted for use by UKHSA. Surge Labs are those to which UKHSA has contracted with on a flexible ‘cost per test’ basis and where no costs are incurred when samples are not processed in these laboratories. Surge laboratories are used in periods of higher demand to support rapid turnaround on results to citizens.

Table 2. Total monthly laboratory average and daily peak utilisation by lab type, April 2021 to December 2021

	April 2021	May 2021	June 2021	July 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021
Core Light House Labs Network ²									
Samples processed	5,166,920	5,448,130	6,892,057	9,283,303	7,378,550	8,909,899	9,487,945	9,088,282	12,053,708
average utilisation	39	40	61	67	47	60	54	59	71
Daily peak utilisation	52	58	86	87	61	74	69	79	86
Surge Labs ³									

¹ Daily peak utilisation is the peak utilisation within the given month.

² Core Light House Labs are those that are contracted for use by UKHSA.

³ Surge Labs are those to which UKHSA has contracted with on a flexible ‘cost per test’ basis and where no costs are incurred when samples are not processed in these laboratories. Surge laboratories are used in periods of higher demand to support rapid turnaround on results to citizens.

	April 2021	May 2021	June 2021	July 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021
Sample processed	108	11	155	421	21,089	607,605	534,712	110,776	1,156,543
Average utilisation	0	0	0	0	4	19	15	8	53
Daily peak utilisation	0	0	0	2	13	43	39	40	87

Contact centres

Table 3 shows the Utilisation of advisors working in call centres over the period of April 2021 to December 2021.

Table 3. Monthly total in England of polymerase chain reaction (PCR) cases and the monthly total utilisation for call centres, April 2021 to December 2021

	April 2021	May 2021	June 2021	July 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021
England PCR cases ⁴	66,170	64,180	233,853	955,133	775,311	784,544	1,075,417	987,257	2,216,817
Used capacity (hrs) ⁵	88,000	69,168	223,667	610,483	558,689	527,322	612,740	395,526	254,718
Total capacity (hrs) ⁶	946,511	688,605	680,187	1,792,044	2,874,019	2,005,178	1,336,699	1,017,106	390,004
Utilisation (%)	9	10	33	34	19	26	46	39	65

Figure 1 below demonstrates the NHS Test and Trace contact centres and how they are resourced to meet the constantly changing demand. The orange line shows the actual utilisation of advisors against the number of reported cases each day over a 9 month period.

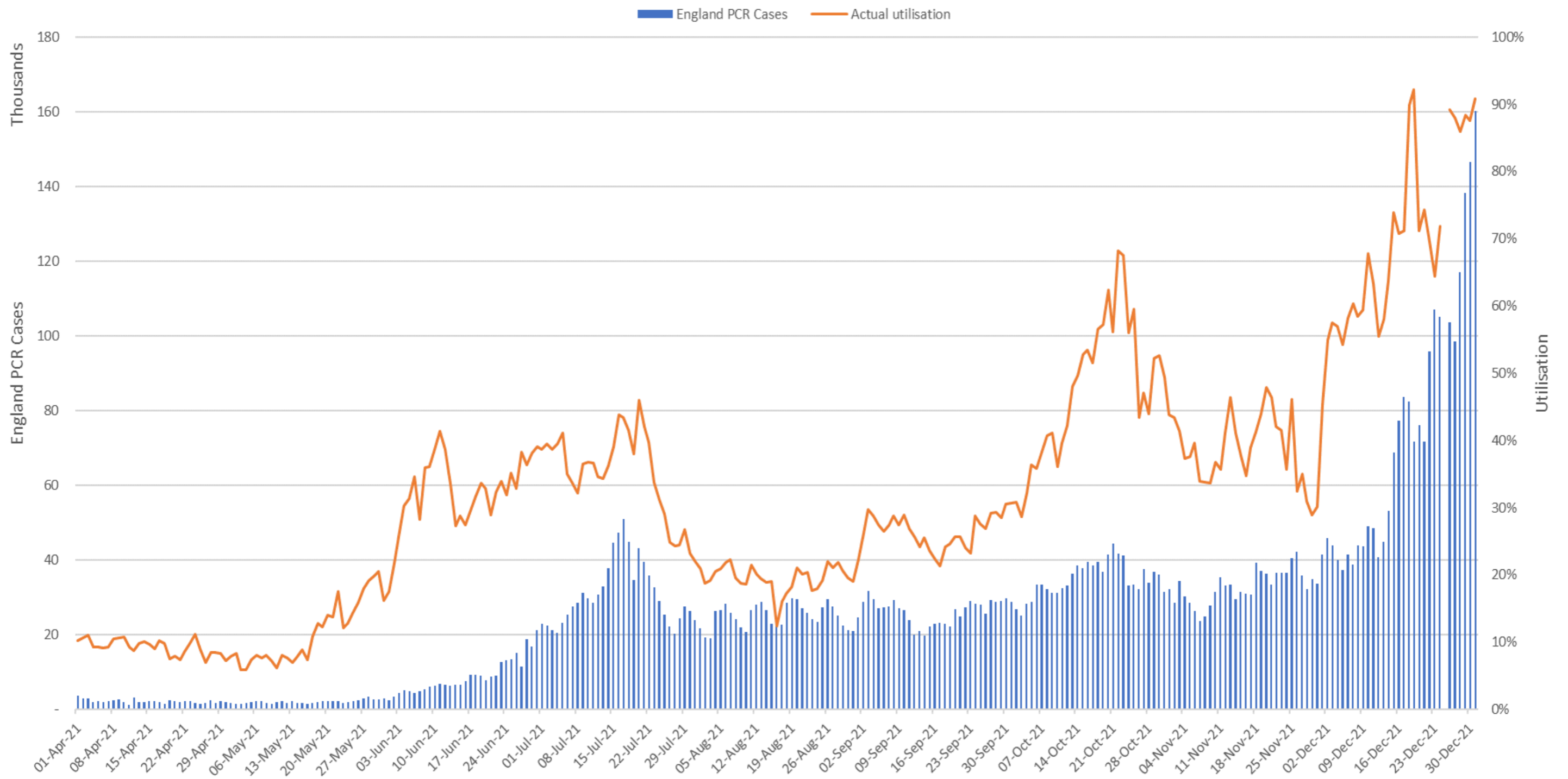
⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1052347/NHS-test-and-trace-data-tables-output-3-february-2022.ods

⁵ Used capacity is the number of calls multiplied by the average length of those calls.

⁶ Total capacity is the number of hours an advisor is available to make calls multiplied by the number of advisors

Figure 1. Daily Utilisation of NHS Test and Trace contact centres compared to England PCR cases

Note: the gap in the graph for utilisation is for 25 December 2021, when the Trace contact centre was closed.



Data

NHS Test and Trace laboratories are resourced to provide a contracted level of capacity, subject to operational challenges such as staff illness or isolation. The total daily 'committed capacity' is reported and published on gov.uk as Pillar 2 PCR testing capacity.

For PCR cases, the Weekly Test and Trace Statistics Data Tables contain data on number of cases. Table 1 has the data for People tested for COVID-19 each week, including those people testing positive, Pillars 1 and 2, England, 28 May 2020 to 26 January 2022.

The laboratory network for polymerase chain reaction (PCR) testing is designed to have sufficient capacity to operate on a 24/7 basis with maximum utilisation of 80% to allow for routine training, maintenance and repair.

As testing demand evolves rapidly, as well as following a widely variable in-week demand cycle, peak daily utilisation has been shown to demonstrate to the Parliamentary Accounts Committee (PAC) in the accompanying letter how the volatility of testing demand requires an appropriately sized testing network and that factors other than average utilisation must also be considered.

NHS Test and Trace contact centres are resourced to meet forecast demand. As demand fluctuates from day to day, it is not possible to predict exactly what number of advisors should be on shift to meet a set utilisation target. The UKHSA closely manages the performance and utilisation of its contact centres.

Methodology

Utilisation is calculated as a percentage, namely:

The used capacity divided by the total capacity of the system multiplied by 100.

In the case of laboratories, utilised capacity is the number of samples processed via PCR to provide a test result to a citizen (whether positive, negative or void). The monthly 'processed' figure relates to the timing of the upload of the result from a laboratory rather than the initiation of processing activity which may span more than one day (laboratories run on a 24/7 basis).

In the case of the contact centres, used capacity (known as workload) is the number of calls multiplied by the average length of those calls. The total capacity is the number of hours an advisor is available to make calls multiplied by the number of advisors.

About the UK Health Security Agency

UKHSA is responsible for protecting every member of every community from the impact of infectious diseases, chemical, biological, radiological and nuclear incidents and other health threats. We provide intellectual, scientific and operational leadership at national and local level, as well as on the global stage, to make the nation health secure.

[UKHSA](#) is an executive agency, sponsored by the [Department of Health and Social Care](#).

© Crown copyright 2022

Published: February 2022

Publishing reference: GOV-11225



You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGI](#). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.



UKHSA supports the
Sustainable Development Goals

