



Protecting and improving the nation's health

Public Health England and NHS Test and Trace: our role in the Roadmap out of lockdown

Delivery plan April to June 2021

Contents

1. Executive Summary	3
Context	3
Our plans to deliver	4
Future plans	6
How we will measure our success	6
2. Introduction	7
Aim of document	7
Context	7
Achievements so far	7
Our principles	10
3. Our priorities to support the Roadmap out of lockdown	11
A. We will continue to develop a response that is fair, works for all and targets endur transmission	J
B. We will ensure our advice, guidance and actions are evidence-based and timely	14
C. We will continually improve our end-to-end service, in line with evidence of need.	19
D. We will help contain further outbreaks, particularly variants of concern	24
4. Future plans	28
Annexe A: Delivering the second business plan	29

1. Executive Summary

Context

In February 2021 the Government published the 'COVID-19 Response – Spring 2021' which sets out how the Government will continue to protect and support citizens across the UK and provide a roadmap out of the current lockdown in England ('the Roadmap'). This presented a 4-stage process by which the country could re-open schools, re-establish some social contact, re-open business, allow people to travel and to attend public and private events.

Core to the delivery of the Roadmap is the continued public health response to the pandemic. As before, we need to bring together Public Health England's (PHE) scientific expertise with the operational capacity of NHS Test and Trace (NHSTT), including the analytical capability of the Joint Biosecurity Centre (JBC), to deliver for the public. This is a further step on the road towards the establishment of the United Kingdom Health Security Agency (UKHSA) which will ensure a stronger health protection system for the future, building on the legacy of our COVID-19 response.

Our work as part of the Roadmap out of the current lockdown has 4 main themes. We will:

- 1. Continue to develop a response that is fair, works for all and targets enduring transmission
- 2. Ensure our advice, guidance and actions are evidence-based and timely
- Continually improve our end-to-end service, in line with evidence of need
- 4. Help contain further outbreaks, particularly variants of concern

By doing this, we will have a greater impact on reducing prevalence overall and of making the most effective use of our resources.

The Delivery Plan includes work being done across PHE and NHS Test and Trace which supports the Roadmap out of lockdown. It does not define the work being done on the vaccination programme, social and economic restrictions and international travel, although it does support these programmes where necessary.

It was produced in April 2021 as an internal planning document to describe what we are doing, why we are doing it and the commitments we are making because of this. It will be owned and delivered by the relevant members of the Executive Committees of NHSTT and PHE. This version has been prepared for external publication, as a continuation of the series of business plans produced by NHS Test and Trace since its creation in summer 2020.

¹ COVID-19 Response - Spring 2021 (Roadmap)

The Roadmap will be implemented in a rapidly changing environment. The enormous success of the vaccination programme has made the easing of restrictions possible, but the risk of transmission will increase as society opens up. More vaccinated people will mean fewer people with severe symptoms but potentially a larger number of asymptomatic cases. Further, we have seen throughout the pandemic an unequal impact on certain parts of society. This will continue and may be magnified in the coming months widening health inequalities and potentially risking the success of the Roadmap nationwide.

Finally, new variants of the virus – including those which reduce the effectiveness of vaccines – will continue to pose a risk to the progress of the Roadmap and we must do everything we can to minimise these risks.

Our plans to deliver

Our work over the coming months will be taken forward in 4 principal areas that will help provide time for vaccines to have the necessary impact and manage the risk of new variants emerging that may jeopardise vaccine effectiveness and rollout.

A) We will continue to develop a response that is fair, works for all and targets enduring transmission

The pandemic is having a disproportionate impact on certain groups, many of whom are already disadvantaged within our society. These are the groups who have experienced the effects of enduring transmission of the virus. As we continue with the Roadmap out of lockdown and prevalence decreases across the country, it becomes more critical for us to focus on tackling the issue of enduring transmission to enable all parts of society to exit lockdown safely. In addition, if left unaddressed, we will see continued onwards transmission, that may cause outbreaks and give rise to new variants which would increase risk across the country.

To tackle this, we will refocus our efforts so that we go further in understanding and prioritising the needs of disproportionately impacted groups and supporting those parts of the country tackling enduring transmission, throughout our end-to-end service. This includes ensuring accessibility of all services (digital and non-digital) to all groups, developing bespoke engagement strategies to build participation and trust in services and optimising our understanding of the barriers faced through better data capture and evaluation. In addition, we will continue to support our local partners (particularly NHS, local authorities, their local system partners, and PHEs Regional Health Protection teams) through frameworks and targeted resources to deliver the appropriate services for disproportionately impacted groups in their local area.

B) We will ensure our advice, guidance and actions are evidence-based and timely

We will continue to produce a range of evidence to develop and share clear and actionable guidance for decision makers across all levels of Government, the NHS and wider public health bodies. This includes through ensuring we have strong analytical capabilities, research and surveillance programmes to provide us with evidence that can drive our response.

By enhancing our already world-leading surveillance activities we can assess and understand differences in prevalence between places and groups, find and manage outbreaks earlier, identify and classify new mutations and variants and help local partners to prevent infections, hospitalisations, and deaths in their communities and across the UK.

We will also provide clear, evidence-based guidance and advice for industry and the public, to prevent people from contracting the virus in the first place, help them to reduce the spread, and enable the safe opening of economic and social activities.

We will ensure guidance is accessible and tailored to different communities and promotes safe behaviours; and we will work to tackle misinformation and encourage participation across our end-to-end test, trace, isolate service.

We will ensure we have evidence to support consideration of value in a broad socio-economic sense to support policy and purchasing decisions.

C) We will continually improve our end-to-end service, in line with evidence of need

We will offer testing, at least until 30 June, to everyone who needs it, so that we can continue to exit lockdown safely over the coming months. We will continue to promote asymptomatic testing through a simpler universal offer as well as through institutions and other channels to improve uptake and engage with groups disproportionately affected by the pandemic.

We will continue the strong progress we have made in tracing cases and their contacts as quickly as possible, including deepening the integration and partnership with local authorities and further integrating NHS COVID-19 app, phone based and face to face tracing. At the same time, we will work with local government and community groups to improve the support available to people to self-isolate to help break the chains of transmission. We will continue to deliver services to protect the country from imported cases from international arrivals.

D) We will help contain further outbreaks, particularly variants of concern

The nature of the pandemic is continually shifting. In the winter, we faced high prevalence everywhere, with small variations across the country. As overall prevalence drops, our focus will

shift even more onto identifying and managing local outbreaks, in particular of variants of concern, to contain them. We will continue to strengthen our genomic sequencing capability and roll out new genotyping (reflex) assays across our testing laboratory network.

We will take rapid action to support our local partners with the local management of outbreaks and help prevent wider community transmission, including through a new outbreak response service and working to prevent incursion of new variants at the border.

We will provide national support that enables local teams to tailor their interventions to suppress new and persistent outbreaks rapidly and effectively. The partnership between our organisations, Directors of Public Health, Health Protection Teams, and communities themselves will continue to be at the centre of the response in every area. NHS Test and Trace, PHE, NHS England and NHS Improvement and the Department of Health and Social Care will also work with local systems, and the relevant professional and membership bodies, to continue to shape the future public health landscape.

Future plans

This plan outlines the steps that we will take to tackle the pandemic and support the Roadmap in the next few months. Following this point, we will continue to flex our service to support the pandemic response.

Epidemiological modelling can indicate possible trajectories and we have worked with wider DHSC teams to map several scenarios to help us understand the response and preparations we may need to make in the coming months.

Our response will change depending on the scenario that we find ourselves in, allowing us to be more agile and dynamic. We have built the flexibility and scale in our services so that we can adjust quickly to changing circumstances in the pandemic to have the biggest possible impact on prevalence and transmission, deliver well integrated responses, reduce health inequalities and deliver value for money.

How we will measure our success

Since the start of the pandemic, the UK government has published a wide range of data on the progress of the virus, the performance of Test and Trace, and the wider government response. Using this and other internal management information, we will monitor our performance against the new commitments in this Delivery Plan. Unless otherwise stated these will be achieved within the duration of this Delivery Plan. In some cases, this will include developing new measures.

2. Introduction

Aim of document

On 22 February 2021 the UK Government published the 'COVID-19 Response – Spring 2021', a roadmap which sets out how we will exit from the current lockdown restrictions in England. This document is a joint Public Health England (PHE) and NHS Test and Trace (NHSTT) plan that outlines how our organisations will support delivery of the Roadmap during the first quarter of 2021 to 2022.

Context

Over the past year, the COVID-19 pandemic has dominated all of our lives. Our Business Plans, published in July and December 2020, set out the contribution of NHSTT in supporting the Government's response to the pandemic. A significant amount has been achieved in a very short time. We now have a test, trace and isolate system that operates at huge scale and great speed and is ever more integrated with local authorities.

Over the coming months we will enter a different phase of the pandemic necessitating a change to the focus of the public health response. This response will be shaped by 4 priorities. We will:

- continue to develop a response that is fair, works for all and targets enduring transmission
- ensure our advice, guidance and actions are evidence-based and timely
- continually improve our end-to-end service, in line with evidence of need
- help contain further outbreaks, particularly variants of concern

Achievements so far

In December 2020, we published the second NHSTT Business Plan² setting out our ambitions to further increase our impact in supporting the UK Government's COVID-19 Winter Plan³. We made 50 commitments in that plan, all of which we have now achieved, in full or in part. Annex A gives details of how we delivered each of them.

Our focus in the next phase will be to build on the capabilities we have created over the last 9 months. As at 31 March 2021:

² NHS Test and Trace business plan

³ COVID-19 Winter Plan

We have expanded our symptomatic testing capacity – we now have capacity to carry out 653,528 PCR tests per day⁴ with 90.6% of in-person tests being returned within 24 hours in the most recent week (25 March to 31 March).⁵

We have made testing even easier to access with 1390 asymptomatic test sites⁶ and 1100 symptomatic test sites. We have a network of 9 pillar 2 laboratories to process PCR tests.⁷

We have provided over 5 million Lateral Flow (asymptomatic tests) per week⁸ to help find more positive cases and help protect vulnerable people. This includes regular testing in adult social care settings (to supplement PCR testing), to enable the return to schools, colleges, workplaces, as well as locally led programmes to identify asymptomatic cases within the community.

Over 25 million⁹ results have returned from primary and secondary school teachers and students since the reopening of schools and colleges for face-to-face education on 8 March 2021. This programme reached nearly a quarter of England's population, alongside the expansion of asymptomatic testing to households and support bubbles of school and college age children, which helped support the associated social, health and economic benefits of keeping education settings open.

We now consistently trace the majority of cases and contacts both within 24 hours. In the most recent week (25 March to 31 March) 83.5% of index cases were reached within 24 hours (72.1% since Test and Trace began), 98.2% of contacts were reached within 24hours of index case providing detail and 79.1% (25 March to 31 March) of contacts were reached within 48 hours of test ordering.

We have developed public dashboards to provide a definitive source of information on COVID-19 in the UK, including the Daily Summary: Coronavirus in the UK dashboard, and published and maintained guidance for the public, health and care sector and the private sector on how to stay safe and adapt services accordingly during the pandemic.

We have deepened the integration and partnership of our service with local authorities, through a refreshed Contain Framework, £400 million provided through the Contain Outbreak Management Fund for 2021 to 2022 (up to £1.6 billion to date) and the development of over 313 Local Tracing Partnerships.

⁴ Coronavirus testing

⁵ Weekly statistics for NHS Test and Trace (England) 25 March to 31 March 2021

⁶ Community Testing Programme PMO.

⁷ Accurate as of 7 April 2021.

⁸ Weekly statistics for NHS Test and Trace (England).

⁹ Data from 8 March to 16 April 2021 – total number of results since programme launched on 4 January 2021 is over 32 million.

We have launched the NHS COVID-19 App, which has been downloaded over 22.2 million times ¹⁰

We have introduced a 'check-in' process for designated venues through QR code posters for NHS COVID-19 App users and customer logs.

We have made it easier for people to self-isolate by expanding the Test and Trace Support Payment scheme and increased the funding for Local Authorities to deliver discretionary support payments to £20 million per month.

We have sequenced more SARS-CoV-2 genomes than any other country allowing the UK to better detect mutations in the virus early to protect the public against concerning variants.

We have set up wastewater testing as a provision of an early warning mechanism of COVID-19, wastewater testing now takes place at more than 250 sites across England, covering 68% of the population.

We have led or assisted in the management of more than 4,500 outbreaks of acute respiratory infections in the last 6 months.

We have published over 40 unique pieces of guidance including Stay at Home guidance – the definitive government guidance for those with symptoms or a positive test result – which has had over 7.4 million unique views. Guidance for the clinically extremely vulnerable has had over 11 million unique views.¹¹

We have established an end-to-end antibody testing service across the UK. We have delivered 1.08 million antibody test kits since September 2020, including support for multiple surveys delivering insight into immunity, vaccine effectiveness and the impact of variants of concern.

We have played an instrumental role in the success of the ongoing COVID-19 vaccination programme. We have also supported NHS England by assessing over 20 candidates for the vaccination programme, to help predict vaccine effectiveness, ensured the effective storage and distribution of COVID-19 vaccines, and supported the development of the Joint Committee on Vaccination and Immunisation's prioritisation and recommendations.

We have worked collaboratively with the devolved administrations to support a joined-up approach to testing, tracing and outbreak management across the UK and to learn from each other's insights and experiences.

¹⁰ Data provided for dates between 25 March and 31 March.

¹¹ Data accurate as of 7 April 2021

Our principles

The shifting nature of the COVID-19 pandemic means that interventions and priorities across the system will need to flex according to the epidemiological context. Therefore, to produce a more agile service that can move at pace, and dial up or down interventions depending on need, we are designing and delivering our response to the Roadmap with 3 principles in mind.

We will be more:

- Dynamic In the face of an increasingly complex and uncertain environment, we are
 deploying a dynamic approach that flexes depending on prevalence, the reproduction
 number (R) and variants of concern. We are developing capabilities, with wider
 partners, that can flex at pace to adapt to the situation at play. We will respond in a
 way that is commensurate with the risk of the pandemic, ensuring we are delivering
 optimal public protection and value.
- Tailored PHE's report on the 'Disparities in the risk and outcomes of COVID-19' clearly illustrated that the experience of the pandemic, and likelihood of exposure, transmission, hospitalisation and death differs across demographics. We are committed to using data and evidence to be more tailored, and adapt our service and engagement in ways that quickly improve ease of access for all, address low testing and vaccine participation rates, consider the drivers and impacts of enduring transmission, and reduce health inequalities.
- Integrated The pandemic is cross-cutting and cannot be tackled by us alone. Success requires the rapid bringing together of the key skills and knowledge held locally, regionally and nationally, working with local authorities, the devolved administrations, the NHS, public health experts, academia, the private sector, the third sector and citizens to coordinate our response to serve the public. Throughout our end-to-end service, our model is one firmly grounded in partnerships to benefit the country's immediate response to the pandemic, support social and economic recovery, and build a more resilient health protection system for the future.

These principles sit at the heart of our response to the Roadmap out of lockdown, as we work to enable a return to a more normal way of life. By incorporating these cross-cutting principles into our end-to-end delivery, we will be better equipped to address emerging new scenarios, protect public health, break the chains of transmission and help defeat the pandemic.

3. Our priorities to support the Roadmap out of lockdown

A. We will continue to develop a response that is fair, works for all and targets enduring transmission

Evidence shows that the pandemic has had a disproportionate impact on certain population groups. 12 We must continue to deliver services that are tailored to their specific needs. We will refocus our efforts within our end-to-end test, trace and isolate service and provide additional support to our partners to reduce the unequal impact of the virus on parts of our society. The issue of enduring transmission must also be tackled to successfully aid a return to a more normal way of life for all. This is the golden thread that runs throughout all our subsequent priorities.

These groups are less likely to engage with our mainstream service which means that it is more challenging to be able to successfully find positive cases, trace their close contacts, and ensure that both cases and contacts self-isolate to stop the spread of the virus. These groups are also less likely to take up the vaccine which increases the risk level and the criticality of this issue. This effect has created the problem of enduring transmission in certain communities, where prevalence remains high, despite the national lockdown, non-pharmaceutical interventions and the test, trace and isolate service that has helped reduce prevalence and transmission across the country overall.

Enduring transmission may cause outbreaks that would subsequently spread across the wider population and threaten the progression of the Roadmap out of lockdown. These areas would also be more susceptible to mutations emerging which may become variants of concern, potentially causing further hospitalisations and deaths.

Over the course of the pandemic, we have worked to scale up our response to deliver optimised mainstream services which are now world leading. However, within the next phase, it is more critical for us to reprioritise our delivery and redouble our efforts on engaging those who we have not been able to reach so far. To achieve this, we will work with local and regional teams and third sector organisations to tailor our operational delivery, policy interventions and engagement accordingly, to address the inequalities that currently exist within our service – and help support a return to a more normal way of life for all.

These commitments to tackling enduring transmission are embedded throughout this document, in sections B, C and D.

¹² COVID-19: review of disparities in risks and outcomes

Our delivery to date

We have established over 1,390 asymptomatic test sites across all English local authorities through the Community Testing Programme, conducting over 5.1 million tests.

We have created a home testing service that provides access to testing for people who are unable to get to a test site across the UK – 95% of the UK population live within a mile of a priority post box.

We have delivered 9 'for the community, by the community' testing pilots to improve engagement of testing with disproportionately impacted group, including various ethnic and religious groups, people experiencing homelessness and people living in areas of higher deprivation across Wolverhampton, Barnet, Cambridgeshire, Peterborough and Redcar.

We have worked with communities most affected by COVID-19 to develop guidance and communications materials that best meets their needs - PHE is leading on an agreed translation and accessibility policy across government and has begun new work with stakeholders to support guidance development.

We have allocated the 2021 to 2022 financial year's Contain Outbreak Management Fund using MHCLG's COVID-19 relative needs formula, which is weighted according to population and deprivation, and maps well against areas of enduring transmission.

We have improved and expanded accessibility measures within the NHS COVID-19 app and through the 119 phone line – we offer translation services for over 200 languages, allow people with no access to the internet to book tests, and have partnered with the third sector to offer enhanced test journeys for blind and partially sighted people. The NHS COVID-19 app is available in 12 languages enabling greater access to the app to different communities for whom English is not a first language. Within the app we have adopted an inclusive use of images, so that the diversity of our society is properly reflected.

We have advised the Joint Committee on Vaccine Immunisation on health inequalities for socially excluded groups that resulted in the recent advice that local vaccination teams should consider a universal offer to adults experiencing homelessness and rough sleeping alongside those in priority groups 6.

We have worked with community leaders to ensure that vaccination centres are placed in communities at higher risk of severe consequences of COVID-19.

Our commitments

We will refocus our efforts so that we go further in identifying and prioritising the needs of underserved and disproportionately impacted groups throughout our end-to-end service.

Identifying and prioritising

We will improve the use of existing data, monitoring and surveillance systems to assess the impact of COVID-19 on disproportionately impacted and inclusion health groups to influence our wider response, including how we respond to outbreaks and provide access to testing and vaccinations. This will include expanding service analytics and behavioural data on underserved groups – we will run supplementary research to make sure that we learn more about those who we currently engage with the least.

We will design and deliver tailored strategic communication campaigns with local authorities that drive awareness, engagement and take-up among disproportionately impacted groups, beginning with areas of enduring transmission. This will be achieved by working with advocacy organisations and community groups locally and nationally to adopt best practice on engagement, and design tailored social media content for these groups.

We will build new service journeys that better meet the needs of disproportionately impacted and underserved groups. This will focus initially on improving language and accessible format provision across our services to ensure parity of access. We will continue to develop our national capability to provide saliva-based testing using Direct LAMP for children with special education needs and disabilities. Pilots are underway in 40 special schools and over the next 3 months we aim to begin deployment to additional special schools using already available LAMP capacity and to establish the first of our semi-automated LAMP hubs.

Supporting partners

We will support local partners through the Roadmap to deliver appropriate services for areas and communities of enduring transmission.

We will create a common definition of enduring transmission so we are able to identify those areas that most need our support.

We will establish a standardised evaluation framework that can be used to assess and track our progress in tackling enduring transmission, with a focus on how this affects underserved and disproportionately impacted groups. This will facilitate continuous improvement, enable us to further share lessons learnt across the business and with our local partners, and improve value for money.

We will support every local authority to deliver community testing, to reflect local priorities and reach people and groups who are less likely to engage with national programmes.

We will tackle areas of enduring transmission through working with local partners (including through Community Testing and local piloting) to ensure that the end-to-end process is simple and accessible. We will tailor our engagement with groups who are disproportionately impacted by the virus and will deliver self-testing pilots for those experiencing homelessness and victims of domestic violence.

We will work with local authorities and their local system partners to identify the areas facing the biggest challenges with enduring transmission and agree a locally driven action plan that includes the ability to flex and deploy national programmes creatively to bring down prevalence and transmission. This will be delivered to 15 areas initially and the learning will then be scaled up and shared with all local authorities as almost all parts of the country will have some wards with enduring transmission.

We will empower local authorities and health and care providers to design and pilot innovative approaches, with an initial focus on improving compliance with self- isolation, to tackle enduring transmission and variant outbreaks. We will encourage organisations to share their insights on 'what works' with other local authorities and providers. This will support them to make evidence-informed decisions about what interventions will work effectively to reduce transmission for the communities and groups they support – and better support each other in a crisis.

B. We will ensure our advice, guidance and actions are evidence-based and timely

We will continue to develop our surveillance and genomics capabilities to produce a broad range of analysis and evidence. Using this we will produce clear and actionable guidance on the state of play for decision makers across central and local government, the NHS and wider public health organisations. We will continue to share advice with industry and the public to support the COVID-secure exit from lockdown and to promote adherence to safe behaviours. We will use evidence to make decisions on value for money.

The breadth and scale of this crisis has increased the importance of ensuring that evidence and data is at the heart of our response. Throughout the pandemic, we have been guided by the science, drawing on clinical and academic expertise, and expanding our research and analysis capabilities to enable us to understand the real-world impacts of the pandemic and how we should respond.

The Joint Biosecurity Centre (JBC), part of NHS Test and Trace, sits at the heart of this evidence-based approach. The JBC brings together data science, assessment and public health expertise to provide analysis and insight on the status of the COVID-19 epidemic in the UK and the drivers and risk factors of transmission. This insight supports decision- makers at a local and national level to take effective action to break the chains of transmission, and in turn, protect the public.

In our next phase, we will continue to build on these capabilities so that we are evidence- driven in all aspects of our policy, strategy and delivery, and use this expertise to guide decisions in central and local Government, the NHS and industry, and promote safe behaviours amongst the public.

The UK already has world-leading surveillance capabilities and genomics programmes, and we will continue to develop these to help us assess and understand the differences in prevalence between places and groups, identify potential outbreaks early, and help us monitor the threat from variants, both domestic and imported.

This insight will enable us to provide analysis, evidence and advice to decision makers on the progression of the virus, emerging variants of concern, and the efficacy of the vaccination programme to keep the public safe as we continue delivering the Roadmap out of lockdown. We will continuously monitor the effectiveness of our interventions so that learning can be shared, changes made where necessary, and to promote value for money throughout our end-to-end service.

In addition to advising decision makers in Government and public health bodies, we will provide guidance to industry to support the opening up of economic and social activities, in line with the Roadmap. We will also continue to provide accessible advice to the public to promote adherence to preventative behaviours to keep the public safe. We recognise that different people will have different needs, so will collaborate and co-design our communications with local government, community organisations and the third sector so that our resources are produced and shared in a tailored way to ensure we reach diverse groups across our society.

Our delivery to date

We have delivered world leading population infection surveillance programmes to inform our understanding of infections in the UK population. The ONS COVID-19 Infection Survey and Imperial College/Ipsos MORI REACT programme have had over 2 million participants and have carried out over 5 million tests. We have delivered additional studies focused on specific highrisk groups and settings, including health and social care workers (SIREN and Vivaldi studies), and children (sKIDS and SIS).

We have identified and provided rigorous analysis and evidence on the spread of the B.1.1.7 variant in England, enabling decision making on changes to the tier system and later the decision to impose a national lockdown.

We have connected academic understanding to policy, bringing expertise from the Alan Turing Institute, the Royal Statistical Society and leading data science commercial consultancies into collaboration with SPI-M groups from academia and public sector research establishments. JBC has provided a route for mathematical understanding into the structure of the policy challenge to increase the sophistication of our response. For example, the use of simple models to help policymakers understand the structure of critical trade-offs.

We have worked with academics to understand the effectiveness of the NHS COVID-19 app. Researchers from the Alan Turing Institute and Oxford University modelled that approximately 600,000 potential cases were prevented by the NHS COVID-19 App. 13

We have played an instrumental role in the success of the ongoing COVID-19 vaccine programme, including supporting the development of the Joint Committee on Vaccination and Immunisation's prioritisation and recommendations; developing expert clinical operational protocols; developing all vaccine-related professional training materials, guidance documents and patient facing materials; and assisting the supply and distribution of vaccines and consumables to the NHS. We have also supported NHS England by assessing over 20 candidates for the vaccination programme and to monitor vaccine effectiveness.

We have developed dashboards to provide an authoritative source of key information in the UK, including the Daily Summary: Coronavirus in the UK that provides daily information on deaths, cases, testing and health care, the Wider Impact of COVID on Health (WICH) Dashboard that looks at measures including wellbeing, physical activity and the impact on health inequalities, PHE's weekly surveillance reports and the DHSC's Test and Trace weekly reports.

We have established the Public Advisory Group which will begin its work in May 2021. The group is recruiting from 20,000 households which is oversampled for disadvantaged groups. It will help us to deliberate key policy challenges with the public, with an initial focus on data sharing questions.

Processed over 760,000 PCR tests per day at end of March 2021, conducted 27,000 genomic sequences per week, with a commitment to increase this to 60,000, and conducted over 100 million tests in the past year.

Provided guidance that is accessible – we have translated guidance into 10 languages other than English which is also available in easy read formats on our dedicated GOV.UK COVID-19 pages.

Our commitments

Surveillance capabilities

We will continue to grow our surveillance capabilities to better understand the spread of the virus and national and international responses to manage the pandemic.

We will maintain and enhance background and population level infection surveillance through active studies, healthcare surveillance and other mechanisms in order to:

 understand variations in prevalence and infection rate in the community and for specific groups

¹³ Research into impact of NHS COVID-19 app

- inform calculations of 'R' number, to be calculated and published by JBC
- identify new and emerging variants of concern, variants under investigation and spread of already identified variants
- inform any changes in measures and policy required to control transmission

We will assess and pilot innovative surveillance techniques, including expanding wastewater surveillance and genomic surveillance, coupled with linking data sources, to enrich our understanding of the virus, sharing insights with our partners to support local and national decision making. This includes expanding the use of antibody testing to support research into re-infection and vaccine effectiveness and exploring future uses. Wherever possible, data will be broken down by demographic characteristics, to help us assess where we need to do more to reach particular communities.

We will grow our wastewater monitoring capabilities to identify outbreaks faster and to detect those that might otherwise have been missed, such as in populations less likely to test. We will cover 70% of the English population in the near future, and will run institution level pilots at prisons, schools and food supply plants.

Evidence and advice

We will provide high quality evidence and advice to decision makers across our organisations, local, regional and national government, clinicians, other public bodies and the private sector.

We will maximise our analytical capability to support and empower decision making in national and local government, and the private sector. This includes the work of the JBC in characterising the changing relationship between infection and severe disease and death in the context of vaccine roll out and new variants, quantifying the drivers of enduring transmission. This evidence will be used to support the 4 tests outlined in the Roadmap.

We will expand the Local Data Spaces (LDS) Initiative, which builds upon the secure data sharing, analytical infrastructure and technical expertise of the ONS. It provides local authority analytics teams with a safe and secure mechanism to share and carry out analysis on granular health and non-health datasets. The LDS also leverages academic partnerships to boost the analytical capability of local authorities by working collaboratively on their LDS. The LDS initiative will be evaluated to determine whether and how this capability becomes part of the future health protection landscape.

We will support ministers to make effective risk-based decisions on international travel through the provision of high-quality assessment of disease burden, prevalence of harmful variants and vaccination success domestically and overseas.

We will support the roll out of the NHS COVID-19 vaccination programme by providing expert clinical and public health leadership to the vaccination programme, including:

- monitoring coverage of the vaccine to identify under-vaccinated groups and work with local partners to address issues of vaccine misinformation in communities
- supporting the UK Vaccine Task Force with the development of new and emerging COVID-19 vaccine candidates, including assessments of performance against variants of concern
- evaluating the short and long-term effectiveness of vaccines against a range of outcomes including hospitalisations, in different population groups to inform vaccine policy development

We will provide evidence to support consideration of value in a broad socio-economic sense to support policy and purchasing decisions. This will include cost-to-deliver to drive operational efficiency, cost-per-positive case to test clinical value and cost-to-serve to understand how to most effectively 'reach' into all parts of the population.

Guidance

We will provide guidance to the public and to all sectors that will prompt the population to adopt safe behaviours and support the safe exit from lockdown.

We will work with colleagues in DHSC, Cabinet Office, other government departments, local and regional government and NHS England to deliver clinical guidance and communications that is tailored to the needs of different populations and areas, by:

- delivering messaging to support public compliance with social distancing and other measures to protect the public
- improving knowledge of the symptoms, essential Hands-Face-Space and other hygiene behaviours
- building public confidence in testing and contact tracing and promoting the importance of self-isolation
- continuing to target vaccine misinformation

We will update guidance on the effectiveness of vaccines and implications for individuals and communities that can be targeted to those specific audiences.

We will pilot several events across the country, reaching a diverse range of audiences, working collaboratively with the Department for Digital, Culture, Media and Sport (DCMS) and the Department for Business, Energy and Industrial Strategy (BEIS) to determine the extent to which these events can operate safely with larger crowd sizes, without social distancing or in indoors settings.

C. We will continually improve our end-to-end service, in line with evidence of need.

In this next phase, we will continue to build on the capabilities that we have created so far to tackle the pandemic. We are committed to providing testing for those who are symptomatic, while expanding our asymptomatic offer through institutions and offering testing to all who want it. We will work with local authorities and communities to optimise our tracing services and support the public's compliance with self-isolation. We will increase participation and reach across our end-to-end service amongst disproportionately impacted groups and those in areas of enduring transmission.

Following the last Business Plan, we have further built the scale and speed of our service. Our capacity peaked in January at over 800,000 tests per day, allowing us to offer testing to all of those that need it, and we are now tracing the majority of cases and contacts within 24 hours. At the same time, we have expanded our asymptomatic testing capabilities significantly through a universal offer of testing via a variety of channels. This mix of symptomatic and asymptomatic testing capacity and capability at scale means we can be flexible in our delivery, allowing us to help mitigate the increased risk of transmission as the country re-opens through each step of the Roadmap over the coming months.

With the changing nature of the pandemic and the varied needs of diverse groups, some disproportionately impacted by COVID-19, we now need to be targeted and responsive and flex up and down as needed, with tailored communication channels and novel delivery models where needed. This offer will be scaled up and down according to prevalence at both national and local levels.

We cannot deliver this on our own and we need to continue to trace cases and contacts as quickly as possible, to help ensure they self-isolate to prevent onward spread of the virus, and engage those groups most at risk of enduring transmission. We will employ an integrated digital and human approach combining a national data architecture with local, regional and national partners, including Directors of Public Health and PHE's local Health Protection Teams, expanding local contact tracing partnerships and locally led delivery through the Community Testing Programme.

NHS Test and Trace, Public Health England and the NHS will continue to strive to deliver a strong and integrated, local, regional and national response in England, working in partnership with local systems. Local systems should build on the flexible and agile partnership working that has been brought about by the local response to COVID-19.

Nationally, we are committed to empowering local decision makers to support local delivery of their outbreak management plans, ensuring that they are locally led, regionally supported and nationally enabled. We will continue to work with local systems with shared purpose to: take a

cross-system view of issues; pool and share resources, evidence and data: and engage, inform and involve our communities.

NHS Test and Trace, PHE, NHS England, NHS Improvement and the Department of Health and Social Care will also work with local systems, and the relevant professional and membership bodies, to continue to shape the future public health landscape.

Our delivery to date

Exceeded SAGE targets

We have exceeded the Government's Scientific Advisory Group for Emergencies (SAGE) targets. SAGE recommended that:

- at least 80% of close contacts of positive cases must be reached.¹⁴15 Since NHSTT launched we have reached 86.27% of close contacts and asked them to self-isolate; for the week commencing 25 March this figure was 89.9%
- isolation of contacts of people with COVID-19 within 48 hours of identification of an index case was necessary for an effective test and trace system;¹⁵ for the week commencing 25 March 98.2% of contacts were reached within 24 hours of index case providing details

We built our capacity for both symptomatic and asymptomatic testing. We have significantly increased our capacity to process PCR tests, with a capacity of over 650,000 tests per day, with one of the highest testing rates and testing capacities per capita of the population in comparison to countries of a similar size and the fourth highest cumulative number of tests conducted in the world. This allowed us to process over 540,000 tests in a day at the peak of daily infections in January. In the week ending 31 March, 90.3% of in-person tests were returned the next day. By expanding our distribution channels, we have been able to ramp up supply of asymptomatic testing to enable up to 1.89 million tests to be taken each day including in supporting the safe return of face to face education in March.

We made testing even easier to access with 1100 symptomatic test sites, including 523 local test sites, and 1390 asymptomatic test sites with all Local Authorities signed up to the Community Testing Programme. We have launched Community Collect, Pharmacy Collect and home delivery for Lateral Flow Testing.

We contacted 10.7 million people who might otherwise have spread the virus.

¹⁴ NHS Test and Trace performance tracker

¹⁵ SAGE 32 minutes: Coronavirus (COVID-19) response, 1 May 2020

¹⁶ 83 million as of 24 February 2021.

We rolled out 313 local partnerships with local authorities, providing them with real- time access to the centralised case and contact management system to enable local tracing teams to reach cases.

We launched the NHS COVID-19 app, which has been downloaded over 22.2 million times, making it one of the most downloaded exposure notification apps in the world. It has sent over 1.8 million alerts to contacts to stop the spread of COVID-19. Analysis suggests that approximately 600,000 cases of COVID-19 have been prevented by the COVID-19 app since September.

We estimated that for every 1% increase in NHS COVID-19 App users, the number of infections can be reduced by 0.8% (from modelling) or 2.3% (from statistical analysis). ¹⁷18 The NHS COVID-19 App is now also interoperable with other contact tracing apps across the UK, protecting users who travel to Scotland, Jersey, Northern Ireland or Gibraltar. In addition, NHS COVID-19 App users who are notified to self- isolate are also informed that they can apply for the Test and Trace Support Payment if they met the necessary eligibility criteria.

We introduced a new venue alert process for designated venues using a new centralised system for NHS COVID-19 App users who scan QR code posters or those who provide their contact details to venues. We can provide rapid advice to individuals who may be at risk and, where appropriate, advise people to get a test if they have visited venues subsequently linked with multiple new cases.

We removed barriers so that it is easier for people to self-isolate, by expanding the Test and Trace Support Payment scheme, working with local authorities to improve access to practical, social and emotional support and launching a free medicine delivery service to support individuals who are self-isolating. The Support Payment scheme now covers payments for a parent or guardian who is unable to work because they are caring for a child who is self-isolating and the funding for discretionary support payments has been increased to £20 million per month. In addition, £3.2 million per month (from March to June) has been allocated to fund the medicine delivery service – and £12.9 million per month to help local authorities assess people's practical support needs and help them access support from voluntary and community groups or other sources.

We scaled the Isolation Assurance Service for international arrivals so that we call all international 'Amber' arrivals each day, strengthening the messaging to promote compliance with the 10-day quarantine requirement and with the required tests at days 2 and 8 of the quarantine period.

¹⁷ Demonstrating the impact of the NHS COVID-19 app

Our commitments

Adjusting testing

Through the period of the Roadmap, we will adjust the mix of testing to reflect the changing nature of the pandemic as well as vaccine roll out and make our offer as simple as possible and continue to target high risk groups and settings.

We will continue to offer PCR testing to anyone who has symptoms. We have invested in new innovative testing technology which means we can operate faster and with increased capacity and develop a flexible pandemic response infrastructure that can respond to surges in demand. This includes the LGC Biosearch Technologies' EndPoint PCR (EPCR) testing system for COVID-19 which has ultra-high capacity and can process up to 150,000 tests each day on a single instrument with a lower cost per test than current RT qPCR.

This technology is now being used by the Milton Keynes Lighthouse Laboratory and will also be used at the new DHSC-run high throughput laboratory in Royal Learnington Spa which is on track to start processing tests from May 2021.

We will make it as simple as possible for people without symptoms to test regularly by:

- simplifying our distribution landscape making it easier for people to access rapid tests by reviewing and reducing our channels
- adjusting eligibility criteria so that everyone who wants it can access twice weekly rapid testing until at least the end of June
- supporting the concept of a simple, single offer through a strong marketing and communications plans
- scaling the offer up and down according with prevalence at national and local level

We will expand our employer testing programme to any employer with more than 10 employees that wishes to offer testing with the option of alternative new delivery channels to complement on-site testing which does not suit all employers. In parallel to continued supply of testing in high-risk settings, we are also supporting the growth of a flourishing, innovative and well-regulated private market for tests and testing services, encouraging widespread take-up of asymptomatic testing in a range of settings, and ensuring quality and quantity of supply on the private market in the future.

We will support testing for high-risk and vulnerable populations, including regular asymptomatic testing in the NHS and adult social care, as well as testing in prisons.

Test and Trace in conjunction with Public Health England will continue to bring forward and support innovative testing modalities that improve the fight against COVID-19.

Continued tracing

Testing alone is not sufficient. We will continue to trace cases and contacts as quickly as possible, including through our NHS COVID-19 app, to help ensure they self- isolate to prevent onward spread of the virus.

We will roll out the new Integrated Trace System to make the case and contact tracing process more efficient, reliable and scalable to provide a better user experience for call handlers and the public.

We will speed up contact tracing by piloting the provision of index cases directly to local authorities as soon as they are available to build on our earlier work to accelerate the tracing of cases with variants of concern.

We will improve the functionality of the NHS COVID-19 app, including launching and embedding a 'warn and book a test' message for individuals who have been to a venue linked to positive cases, and enabling messages delivered to be differentiated by local authority and postal district. We will work with local authorities to support them in ensuring that relevant businesses are following current requirements on QR code check-in and customer logs.

Self-isolation compliance

We will seek to encourage high compliance with self-isolation by working with local authorities to improve financial and practical support, alongside continued work to develop daily contact testing as a potential alternative to self-isolation.

We will work with local authorities to provide better practical, social and emotional support for people who need it while self-isolating, now supported by £12.9 million per month funding to help local authorities assess people's support needs and help people access support from voluntary and community groups and other sources.

We will support local authorities in improving financial support for people self-isolating, using the £20 million per month funding for discretionary payments under the Test and Trace Support Payment scheme.

We will evaluate contact testing in workplaces and continue the clinical trials of home testing and for bubbles and close contacts of school pupils. This testing would offer contacts of positive cases the option to test daily rather than self-isolate.

International arrivals

We will continue to prevent the transmission of cases from international arrivals at the border through tailored services.

We will develop the Isolation Assurance Service for international 'Amber' arrivals, by:

- flagging international arrival 'Amber' cases to the Home Office based on direct travel, countries visited in the last 10 days, and report on compliance
- collecting additional data to trace and match test results, identify orphaned results and follow up any identified as having a variant of concern

D. We will help contain further outbreaks, particularly variants of concern

The pandemic is ever changing. During the winter we faced high prevalence everywhere, with relatively small variations across the country. As overall prevalence drops, we will need to redouble our focus on local outbreaks and variants, to keep local spikes local and prevent our vaccination rollout coming under threat from new strains of the virus.

Protecting against variants of concern (VOCs) and ensuring we can progress through the Roadmap as planned will rely on our work with international partners and academia to understand the threat from variants and mutations. Ground-breaking scientific and analytical work within PHE and JBC is contributing to the world's understanding of how the virus is changing, and rapidly classifying variants of concern and variants under investigation.

Responding to any kind of outbreak – from one variant of concern case to a local outbreak of the dominant strain – relies on identifying it early. Our surveillance work, using testing and wastewater analysis, helps us identify areas where prevalence is higher and needs to be addressed. Sequencing positive tests and using new genotype assay PCR tests will show us where there are variant cases that need further public health intervention. Surveillance will also help us understand the immunity aspect of vaccines to inform future policy decisions.

Where we identify areas of high prevalence, localised outbreaks, or variant cases, we will deploy dynamic responses tailored to the specific circumstances of the threat. Health Protection Teams have the expertise to investigate and suppress local clusters and outbreaks. Where we find variant cases, we will continue to support local authorities to surge asymptomatic testing to understand spread and suppress transmission. Positive cases from areas linked to variants are routinely sent for sequencing, and cases undergo tailored rapid response tracing. We are also supporting work to prevent new variants entering the UK via international travel, through testing, genomic sequencing, and enhanced self-isolation support for those returning from abroad.

Any outbreak or variant response demands a strengthened focus on health inequalities and underrepresented groups, as it will be harder to spot spikes in communities that are less engaged. As well as making our services more equitable, this approach is the only way to keep transmission in our communities low and prevent outbreaks spreading during this period. We are all relying on this integrated response, where national support enables local teams to suppress both new and persistent outbreaks rapidly and effectively.

Our delivery to date

We have sequenced more SARS-CoV-2 genomes than any other country. We are actively sharing data generated from this activity to the global scientific community through initiatives such as GISAID to aid in the global fight against the virus. PHE's research and risk assessment is rapidly classifying variants for investigation and designating variants of concern, building on earlier work that led to the discovery of a new variant in Kent.

We are rapidly rolling out new, faster ways to test for known variants through 'reflex assays'. This will allow us to identify variants within the same lab as the PCR test, without needing to send samples to separate facilities for whole genome sequencing.

We set up wastewater testing as an early warning mechanism for COVID-19 outbreaks and variants of concern by monitoring sewage and sharing data. This innovative capability analyses wastewater samples for COVID-19 to allow targeted action to be taken to identify infected people and prevent clusters of cases from growing into outbreaks.

We implemented intensive support packages to manage outbreaks in high risk settings and vulnerable populations in collaboration with others across local and national government.

We co-developed an Outbreak Identification and Rapid Response operating model with local authority colleagues to enable a systematic approach to COVID-19 cluster and outbreak detection and response in all local areas. Rebalanced work between local, regional, and national teams to remove routine work and ensure Health Protection Teams can focus on their specialist functions responding to complex outbreaks and investigating clusters.

During the 2020 to 2021 financial year, the Government provided local authorities with over £1.6 billion as part of the Contain Outbreak Management Fund to support COVID-19-related public health activities such as testing, non-financial support for self-isolation and support of vulnerable groups, including rough sleepers.

Our commitments

New techniques

We will continue to develop new techniques to identify and investigate variants and identify outbreaks earlier.

We will improve the suite of measures that are provided to local teams. For example, the Integrated Common Exposure Report Tool, an online platform which facilitates the integration of information from Common Exposure and Postcode Co-incidence Reports with Health Protection Team data management systems, will be made available to local tracing partnerships soon.

We will improve the use of the NHS COVID-19 app to support outbreak management, by:

- 1. Using the NHS COVID-19 app and GOV.UK.Notify to notify individuals that they have been to a venue that others who have since tested positive for COVID-19 have visited to advise them to take extra care and book a test. This will also contain a link to the test booking system for ease of use. This will be supported by improvements to make it easier to check in at venues, by updating the QR posters for hospitality venues to provide more visibility and clearer reasoning for the need to check in. It is now also a requirement for all members of a group to either check in using the NHS COVID-19 app, or leave their contact details, when visiting hospitality venues.
- 2. Enabling messages delivered through the NHS COVID-19 app to be differentiated by local authority and postal district to speed up the ability to deliver localised and flexible messaging to control local outbreaks.

We will grow our genomic sequencing capacity to drive down turnaround times and continue to enable genomic sequencing for all positive PCR test samples, even if prevalence increases.

We will roll out new techniques to speed up variant identification, including reflex assays for samples to identify known variants of concern within 10 hours for all positive COVID- 19 test, in parallel with PHE's full genomic sequencing process.

We will develop the 'New Variant Assessment Platform' to offer the UK's world-leading genomics expertise to countries without equivalent capabilities, strengthening existing international surveillance relationships through shared sequencing and data analysis.

We will provide timely assessment of the risk posed by new variant strains of COVID-19 both in the UK and internationally and enhance and embed the analysis and response required to enable the identification and containment of outbreaks.

Supporting local partners

We will support local partners through the period of the Roadmap – and work with the devolved administrations – to respond rapidly to local outbreaks, variants and mutations before they drive community transmission.

We will support councils to deliver the outbreak responses that fit their communities best, using the funding secured for the continued Contain Outbreak Management Fund, the updated Contain Framework, and supporting local systems with the development and implementation of their Local Outbreak Management Plans.

We will establish a clearer set of system indicators and reporting mechanisms for local teams to improve the measurement of the impact and success of local and cluster tracing, to support strong performance everywhere.

We will mitigate the variant threat through targeted case finding in local areas and cluster networks linked to variants of concern or under investigation, as set out in the Contain

Framework. We will deliver this through additional testing, deploying our 500 mobile testing units, genomic sequencing, tracing, communications and self-isolation support, at the direction of local leaders who can more effectively tailor responses to their communities and underrepresented groups. Nationally, we will share data and evaluation from our responses to variants. We are committed to empowering local leaders, ensuring they have the tools and resources needed, and working in partnership to co-design the ongoing response to COVID-19.¹⁸

We will increase Outbreak Identification and Rapid Response (OIRR) capabilities across the country learning from the expertise in PHE's Health Protection Teams to detect, assess and respond to cases identified as linked by JBC's cluster detection tool. Each of the 314 local authorities will be supported by an OIRR toolkit (processes, access to support and tools such as the Common Exposure Report) and joint working arrangements with regional HPTs.

¹⁸ COVID-19 contain framework: a guide for local decision-makers

4. Future plans

Our COVID–19 response strategy is based on a dynamic approach building on the success of the vaccine roll out, as well as responding to potentially adverse effects caused by changes in global prevalence levels and variants of concern.

We will therefore continue to play a key role in managing this situation as it develops, pushing the country towards the most positive scenario, ensuring that our service has value for money principles embedded throughout, and clear frameworks for accountability.

At the forefront of our service model will be how we respond to:

- enduring transmission both domestically and internationally
- evidence of vaccine impact on rates of transmission, and COVID-19 associated morbidity and mortality in different groups
- the emergence of new mutations and variants
- potential increases in riskier behaviours affecting transmission as we continue to open up society and the economy
- varying levels of vaccine uptake across the population, including those who are disproportionately impacted and health and care workers

As we move beyond the Roadmap, we will continue to develop our scenarios and our evidence base, using a range of evaluations from across our programmes to provide us with the evidence needed to develop our overall pandemic response from summer 2021 onwards. As well as operational evaluation, we will also continue to refine our understanding of our impact on the pandemic, ensuring that we pursue a response based on the most effective interventions. We will continue to work across Government to agree robust planning based on the latest available evidence and ensure the most effective interventions are used alongside novel approaches to help reduce transmission, hospitalisations and deaths. This work, and the evaluation and evidence from existing policies and programmes, will be key to allowing the UK to continue to unlock and return to socio-economic activities.

A key part of our work going forward involves setting up the UK Health Security Agency. This work will develop UKHSA's core capabilities and integrate the functions of PHE and NHSTT into one cohesive organisation for the future.

Annexe A: Delivering the second business plan

In December 2020, we published the second Test and Trace Business Plan, setting out our ambitions to further increase our impact in supporting the UK Government's COVID-19 Winter Plan.

The plan focused on 4 priority areas:

- A. Working in partnership as 'teams of teams'
- B. Increasing the speed and reach of our services
- C. Improving the use of our data
- D. Offering an excellent service to the public

Under each priority area, we set out our priority objectives, and a number of commitments to achieve those objectives. This annexe reports NHS Test and Trace progress against those commitments as at 31 March 2021. Over the same period, PHE has continued to report against its 2020 to 2021 Business Plan to DHSC through its Quarterly Accountability Reporting arrangements.

Table A. Working in partnership as 'teams of teams'

Objective	Commitment	Progress at 31 March 2021	Final assessment
A.0.1	Take a cross-system view of issues and develop a joint understanding of the local context: ensuring even greater coordination and coherence of our response, a commitment to working across teams to understand impacts at a local level and planning ahead from a shared set of assumptions.	In progress	Further action required Survey undertaken with LA Chief Executives or Directors of Public Health to feed into wider organisational priorities. Shared 'what works' approach to piloting and evaluating novel interventions to stop transmission.
			Regular engagement of local and regional partners as part of continuous improvement approach.

Objective	Commitment	Progress at 31 March 2021	Final assessment
A.0.2	Pool resources, evidence and data: ensuring we are using and sharing our combined resources efficiently, effectively and more systematically, so our response continues to adapt to the latest evidence and good practice to deliver our shared goals.	Achieved	Ongoing action Research sharing on stubborn transmission. Toolkit shared with Directors of Public Health to share guidance and best practice.
A.0.3	Engage and inform our communities: building a positive narrative about the response that reassures people and enables them to feel optimistic about the future – with more support for locally tailored communications that recognise the diversity of local communities.	In progress	Ongoing action Asymptomatic Testing Plan will be implemented by the end of April. Established forums with local and regional partners to share best practice including toolkit for Directors of Public Health and communications assets via PHE portal.
A.1 Drive u	p locally led testing at scale		
A.1.1	Local Directors of Public Health (DPHs) already determine test site locations and have their own discretionary rapid test allowance. We will build on this to ensure DPHs are able to choose their own approach to delivering tests and prioritising testing targets, drawing on their detailed knowledge of local needs, and helping ensure we reach communities most at risk.	Achieved	All LAs and DPHs able to create own delivery plans for LFD rapid testing. Varying site locations in use and many LAs targeting specific population groups based on local need.

Objective	Commitment	Progress at 31 March 2021	Final assessment
A.1.2	As part of its COVID-19 Winter Plan, the government is offering a new community testing programme for Tier 3 areas. Local authorities can come forward to participate in the programme, building on the positive lessons learned from the Liverpool Mass Asymptomatic Testing pilot (MAST).	Achieved	All LAs engaged with Community Testing and delivery local testing.
A.1.3	We will create a comprehensive system of local and national partnerships for contact tracing with a blended, fully integrated tracing model. This will allow us to reach a greater number of people with the virus and their contacts.	Achieved	Local Contact Tracing Partnerships in place in 313 out of 314 local authorities. New Local-0 pilots being established to share data in real time with local authorities to improve contact tracing.
A.2 Ensure	support for self-isolation		
A.2.1	Deliver tracing partnerships to support local tracing activities.	Achieved	150 out of 151 UTLAs live on 31 March.
A.2.2	For local authorities facing Tier 2 (High Alert) and Tier 3 (Very High Alert) restrictions, the Contain Outbreak Management Fund will provide additional funding. The criteria in place for this funding allows local authorities to use this to support non-financial activities aimed at assisting those who are self-isolating.	Achieved	Approximately 4.5% of COMF monies had been allocated to support self-isolation by end of March, with caveats that not all funds from COMF have yet been committed and a small number of LAs have not sent their returns for analysis.
A.3 Prevent	t and manage local outbreaks		
A.3.1	NHS Test and Trace will provide analysis and insights	Achieved	Ongoing action Improvements made to

Objective	Commitment	Progress at 31 March 2021	Final assessment
	to help tailor optimal packages.		local data sharing. Testing deployed rapidly in response to clusters of new variants.
A.4 Extend	funding to Local Authorities		
A.4.1	Building on the substantial collaboration so far, we will work to a shared framework to use data, insight and analysis to identify clusters of new infections and potential local outbreaks, and prevent onwards spread, including through rapid deployment of testing	Achieved	Ongoing action Improvements made to local data sharing. Testing has been rapidly deployed in response to clusters of new variants.
A.4.2	We will provide new funding through the Contain Outbreak Management Fund of potentially £200 million per month to support local authorities facing continued or higher restrictions and to help fund local contact tracing and other requirements. This builds on the £780 million we have already committed to date.	Achieved	£400 million announced as part of the Roadmap bringing total £2bn over the period. Extension to Test and Trace Support Payments and discretionary funds to support self-isolation, targeting areas with higher deprivation and levels of enduring transmission.

Tabel B. Increasing the speed and reach of our services

Objective	Commitment	Progress at 31 March 2021	Final assessment	
B.1 Testing	B.1 Testing: find more cases, more quickly			
B.1.1	Further expand the scale of our testing programme.	Achieved	MTU expanded to 500 vehicles. 161 LTS and 11 RTS added since December.	
B.1.2	Continue to expand our testing capacity, including through rapid lateral flow devices, to increase the proportion of positive cases we find.	Achieved	New MTUs have doubled capacity. New RTS and LTS sites also increase capacity.	
B.1.3	Enable our largest employers, critical industries and the cultural and hospitality sectors to run regular testing programmes.	Achieved	There are around 1,000 private distributors and private providers of testing services currently being approved via UKAS accreditation. Community testing, and participating LAs, have made their testing sites available for key and essential workers to get tested whilst they have been at work.	
B.1.4	Support the rollout of community testing in Tier 3 local authorities.	Achieved	Community testing rolled out in all Tier 3 LAs, including all LAs in England.	
B.1.5	Ensure that people can access a test and get their results faster.	Achieved	Between 18 and 24 March, in-person testing averaged 88.6% of results available in 24 hours (up 33% from previous week), exceeding target of 80%. On average, 98.5% results for in-person	

Objective	Commitment	Progress at 31 March 2021	Final assessment
			channels received by end of following day.
B.1.6	Make it easier to book a test, through improvements to the online and telephone booking systems, taking account of differing access needs.	Achieved	Digital journeys more accessible and easier to use: □ Suppress Service status accordion □ Display accessible facilities □ Be My Eyes app integrated with 119 □ Improvements to frontend code to improve WAVE ratings (Aria and legend updates) □ RNIB integration for alternative formats Better signposting for those with additional needs.
B.1.7	Improve processes to reduce delivery times across all channels through better sample flow, allowing 7-day collection of home tests and increasing test processing speeds through innovations such as unpacking and scanning during transit.	Achieved	Home channel Transit time for home samples from SW reduced by 5.5 hours. IEP for 7 day a week delivery schedule from 6 days for the Amber route tests. Introduced Sunday collections for BAU home kits which has increased flow of samples into labs. Expansion of regionalised returns model via additional labs decreased transit times for samples. Satellites
			Automation and

Objective	Commitment	Progress at 31 March 2021	Final assessment
			streamlining of allocations processes for quicker outbound delivery.
			Consolidation centres to enable balancing across labs. First-in first-out prioritisation, bringing turnaround below 48hours.
			Return box tracking to increase traceability and reduce lead times.
			Barcode scanners to reduce missing results. Labs monitoring and new data feeds from NPEX.
			MTUs End of day pickups from MTUs direct to labs in SW and Wales. Midday pickups for NI and Wales. Brought forward opening hours across system to smooth flow of tests. Piloted opportunities to use Mobile Processing Units to reduce turnaround times.
B.1.8	Increase the number of test sites.	Achieved	MTUs expanded to 500 vehicles. 161 LTS and 11 RTS added since December.
B.1.9	Reduce the distance the majority of people need to travel to get a test to within	In progress	Median distance by registered test subject to LTS 1.1 miles / RTS 3.8

Objective	Commitment	Progress at 31 March 2021	Final assessment
	1.5 miles or 30 minutes for walk-up facilities.		miles. LTS around 39% coverage across 520 sites
			within 30 minutes walk time.
			RTS 90% within 45 minutes drive time.
			RTS and LTS combined around 94% UK population coverage
B.2 Contac	t tracing – Trace a greater pro	oortion of cases and	across 610 sites.
B.2.1	Pilot the offer of frequent rapid turnaround testing for		Multiple pilots completed.
	contacts of positive cases as an alternative to self-isolation.		Ongoing pilots to establish public health impact of daily contact testing.
B.2.2	Expand and improve our contact tracing system so that by the end of January we reach 90% of people who test positive.	Achieved	Between 11 and 17 March, 90% reached and asked to provide recent close contacts (87% at end of January).
B.2.3	Expand and improve our contact tracing system so that by the end of January we can reach 85% of contacts identified via people who test positive	Achieved	Between 11 and 17 March 2021, where communication details were available, 92.5% of close contacts reached and told to self-isolate.
			89.5% of all identified contacts reached.
B.2.4	Reach contacts faster, with by March approximately 80% notified within 72 hours	Achieved	Between 11 and 17 March 2021, 90.4% of close contacts of in-person PCR

Objective	Commitment	Progress at 31 March 2021	Final assessment
	of the person who tested positive booking a test (for in-person tests) through improving our digital journey. Increased use of rapid tests may allow us to drive turnaround times even faster in future.		test subjects reached within 72 hours of the case taking a positive test. Across all channels, 81.5% of close contacts reached and told to isolate within 72 hours.
B.2.5	Increase the speed of our contact tracing, with the potential for rapid tests to start the process at an earlier point in the infection cycle – ensuring that those who need to self-isolate do so as early as possible.	Achieved	Successfully introduced the capability to contact after LFD. Fast Track initiatives started at end of February, improving the % Index Cases Reached (hitting 90% target for the first time) taking several hours off median times to trace index cases, contributing to improvement in overall end-to-end journey times. In-person PCR
			consistently achieved 80% in 48 hours.
B.2.6	Help set up local tracing partnerships in up to 90% of upper tier and unitary local authorities (UTLAs) by the end of December 2020.	Achieved after target date	By 31 December, 89% of Lower Tier Local Authorities onboard. Likely to represent fewer than 90% of UTLAs with full coverage.
			By 31 March only one LTLA in one UTLA remained to be onboarded during April.

Objective	Commitment	Progress at 31 March 2021	Final assessment
B.2.7	Further integrate local and national tracing by providing data to local teams faster and providing extra surge capacity where demand is high.	In progress	Local-0 pilots allow cases (and contacts in some LAs) to flow directly, bypassing the national operation entirely. Piloting initiatives with local tracing for extra surge capacity, with option to revert to national operation if LAs cannot
B.2.8	Make the journey easier, simpler and faster through allowing people who test positive to register contacts online more easily, reducing unnecessary repeat calls, and speeding up call centre processes to reach people faster through new tools.	Achieved	manage volumes. Policy changes allow adults in family households to be point of contact for tracing, eliminating duplicate calls.
B.3 Suppor	ting Isolation: ensure more pe	ople are supported,	more effectively
B.3.1	Improve our customer service function to respond to complaints more efficiently.	In progress	Phase One targets fully met: MP escalation backlogs cleared case management system implemented Digital Helper tool launched for public enquiries, complaints and feedback Phase Two in progress: scaling up a more robust, public facing digital service to accommodate International Arrivals and Managed

Objective	Commitment	Progress at 31 March 2021	Final assessment
			Quarantine Service (launched 23 March) • preparing to enhance to meet accessibility requirements • language commitments • accommodating other enquiries and complaints channels • streamlining and joining up processes Ensuring robust capability for UKHSA.
B.3.2	Make Test and Trace Support Payments available to those notified by the NHS COVID- 19 app, ensuring more people are able to access the support to successfully self-isolate.	Achieved	Since 11 December individuals identified as contacts through NHS COVID 19 app can claim £500 payment.
B.3.3	Help local authorities identify those needing support during self-isolation, using follow-up calls to ask whether those self- isolating might need more support.	Achieved	LAs data stream in place to identify people flagging support needs, but not acting on data in all circumstances.
B.3.4	Launch a new survey with the Office for National Statistics to improve our understanding of how well people self-isolate and what drives compliance.	Achieved	Results from 'COVID Test and Trace Cases Insights Survey' data collected 1 to 13 February 2021 now published (26 March 2021). Similar survey for close contacts to be published later.
B.3.5	Improve understanding of the need to self-isolate, and the support available to do so, through marketing campaigns and collaboration with	In progress	£12.9 million in additional funding per month to local councils to support access to food, help with caring and wellbeing.

Objective	Commitment	Progress at 31 March 2021	Final assessment
	local authorities.		£3.2 million per month to medicines delivery service.
			Financial and practical support for self-isolation delivered through collaboration with LAs.
			Further collaboration planned with LGA to increase impact and reach, including regional TV package.
B.3.6	Work with local authorities to take action where employers are knowingly allowing people to work when they should be self-isolating.	In progress	Ongoing action Working with BEIS to better prevent employers allowing or pressuring people to work when should be self-isolating – discussions ongoing.

Table C. Improving the use of our data

Objective	Commitment	Progress at 31 March 2021	Final assessment	
_	C.1 Use high quality insight, modelling and analysis to inform local and national action to stop the spread of the virus			
C.1.1	Use wastewater analysis and data from the NHS COVID-19 app and other sources to provide more rapid and accurate information on potential local outbreaks.	Achieved	Completed pilots and scaled up to deliver about 68% population coverage with over 200 sites in 8 core cities including London.	
			Proved capability to discriminate VoCs using genomic sequencing of wastewater.	

Objective	Commitment	Progress at 31 March 2021	Final assessment
			Assisted multiple LA response teams, mass testing teams and Project Eagle.
C.1.2	Share data faster, and more widely and easily, with local authorities and the devolved administrations to help target testing and outbreak management.	In progress	Agency Agreement establishing JBC as a UK- wide body signed in December. Piloting Local Data Spaces project, with 18 LAs and regional groupings in England – expecting first pilot LAs to complete onboarding during April.
C.1.3	Make more of our work publicly available, including the codes we use to analyse various data sets.	Achieved	New publications added to GOV.UK including: coronavirus data informing local and national decision making coronavirus cases by local authority epidemiological data the Rùm Model technical annex
C.2 Identify clusters of new infections more rapidly and notify those who may have been exposed			
C.2.1	Move to a single cloud platform to host NHS Test and Trace applications reliably, securely and at scale.	In progress	Begun migrating Deloitte and Kainos services from AWS accounts to DHSC's Halo AWS platform. First migrations to be completed by 16 April. Includes disaggregating

Objective	Commitment	Progress at 31 March 2021	Final assessment
			Deloitte services to allow re-procurement as independent components.
C.2.2	Provide further data and support to local Health Protection Teams and local authorities to identify clusters and high-risk events as close to real time as possible.	Achieved beyond target date	JBC Complex Network Analysis Tool currently ready for deployment on 7 April to allow outputting Common Exposure Alerts to local teams.
C.3 Continu QR code sy	ue to promote widespread ado /stem	ption and use of the	NHS COVID- 19 app and
C.3.1	Increase our use of staff, customer and visitor logbooks and app check-in data to warn and inform people who have been to locations linked to multiple cases, enabling them to adjust their behaviour to reduce transmission.	Achieved	Ongoing improvements to data quality and automation to identify potential outbreaks quickly and send alerts. Working closely with businesses in hospitality, close-contact, and leisure and tourism sectors to prepare to reopen safely. Researching business support and guidance for Contact Details Regulations.
C.3.2	Continue to promote uptake and usage of the NHS COVID-19 app.	In progress	Updated comms and marketing campaign live from April in line with Roadmap. LA breakdown of apprelated data to be published so LAs can

Objective	Commitment	Progress at 31 March 2021	Final assessment
			encourage take-up where needed.
C.3.3	Share with the public how the app is being used and how aggregated app data helps break transmission – such as helping local authorities to target testing.	Achieved	Weekly publication of 5 new metrics implemented. Research by Alan Turning Institute and Oxford University published. Peer review is due to be published in Nature shortly.

Table D. Offering an excellent service to the public

Objective	Commitment	Progress at 31 March 2021	Final assessment
D.1 Show p	eople how they can use Test a	and Trace to reduce	risk in their community
D.1.1	Create simple and compelling information to help people understand their risk and how our services can help them, their families and friends reduce the impact of the virus.	Achieved	Released explainer videos and posters. Created simpler, clearer guidance on asymptomatic testing.
			From April information on NHS website expanded and easier to navigate, to provide primary online channel for general public, addressing trust barriers.
D.1.2	Continue to work with trusted voices locally and nationally to increase the reach of our services, especially among those in disadvantaged and seldom heard groups.	In progress	Twenty-three 'listening hours' with advocacy organisations for underrepresented and vulnerable communities. Three roundtables with NHS Senior Leaders
	This includes drawing on more community partnerships and working with well-known doctors,		and community leaders to bolster engagement. Community testing

Objective	Commitment	Progress at 31 March 2021	Final assessment
	social media influencers and local radio stations to deliver key messaging.		teams running wide range of pilots with community leaders for 'hidden populations'.
			Local Authority 'good communication network' established as forum for local comms professionals to share good practice and commission comms material.
			Testing best practice models (SOPs and playbooks) published on the Toolkit – virtual sessions delivered to support uptake of models.
D.1.3	Translate more guidance nationally, reducing the need for local authorities to translate locally.	Achieved	Increased coverage of translation availability – more planned as material grows with our services and guidance.
			Recently produced extensive range of translations for LFD self-swabbing posters.
			Essential app content (including terms of use) translated into 12 languages.
D.2 Empow	er the public to help us make	our service better	
D.2.1	Develop accessible advice and support (for self- isolation), specifically for people living in multigenerational and overcrowded households.	Achieved	MHCLG now provides extensive list of guidance including: • 'COVID-19 and renting' guidance for landlords, tenants and local authorities

Objective	Commitment	Progress at 31 March 2021	Final assessment
			guidance for people who are clinically extremely vulnerable
D.2.2	Set up a Citizens Advisory Board to work with us on some of the most challenging policy questions. Create meaningful public policy dialogue, especially with underrepresented groups.	In progress	Ongoing action Public Advisory Group launched – participants being recruited. Winter Listening sessions with under-represented groups. Roundtables, webinars and surgeries set up via CTP to share testing models and best practice for URGs with Las. Similar sessions with Health Inclusion Groups regionally (homelessness, drugs and alcohol, BAME).
D.3 Make it	easier to use our services		
D.3.1	Make our policy and design decisions more transparent, including our equality impact assessments.	In progress	Further action required Design history to be published before April – will include accessibility performance of LTS and RTS from 1 February audit. DHSC annual PSED report due at end March or April.
			Still need to agree approach to EIA publication for T&T and UKHSA.
D.3.2	Make our user experience simpler, easier and more convenient, including through extensive user research and testing and piloting new ideas, with partners such as seldom heard groups and advocacy organisations.	Achieved	Implemented RNIB accessible formats service. Quantitative customer feedback for PCR tests now collecting 20,000 responses per week at test site level.

Objective	Commitment	Progress at 31 March 2021	Final assessment
			In-house user research function supports more than 30 user researchers. 40 or more hours of user research per week across 15 workstreams, including around 30% from under-served audiences. Improved design of more than 20 online journeys and designed and evaluated more than 20 live pilots for businesses and communities. Winter Listening sessions with advocacy organisations fed insights into policy, design and communications.
D.3.3	Work with people to better understand how to support them to make choices that help keep them and others safe – including through using testing registration processes to provide guidance on contact tracing and selfisolation so that users get the information they need, when and where they need it most.	In progress	Working with the NHS.UK team to publish revised guidance in mid-April to meet identified user needs for self-isolation. Iterative improvements to guidance and content in contact tracing digital and phone services. Equity and Inclusion team planning end-to-end journey guidance in alternative formats.

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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Published: August 2021

PHE gateway number: GOV-9352



PHE supports the UN Sustainable Development Goals

