

Collaborating For Success: The UK COVID-19 Vaccination Programme

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The UK Response

Feb 2020



Traits of Covid-19 not
fully understood
No previous vaccine for
human coronavirus
Long vaccine
development times

08 Dec 2020



UK first western country
to regulate and
administer a Covid-19
vaccine

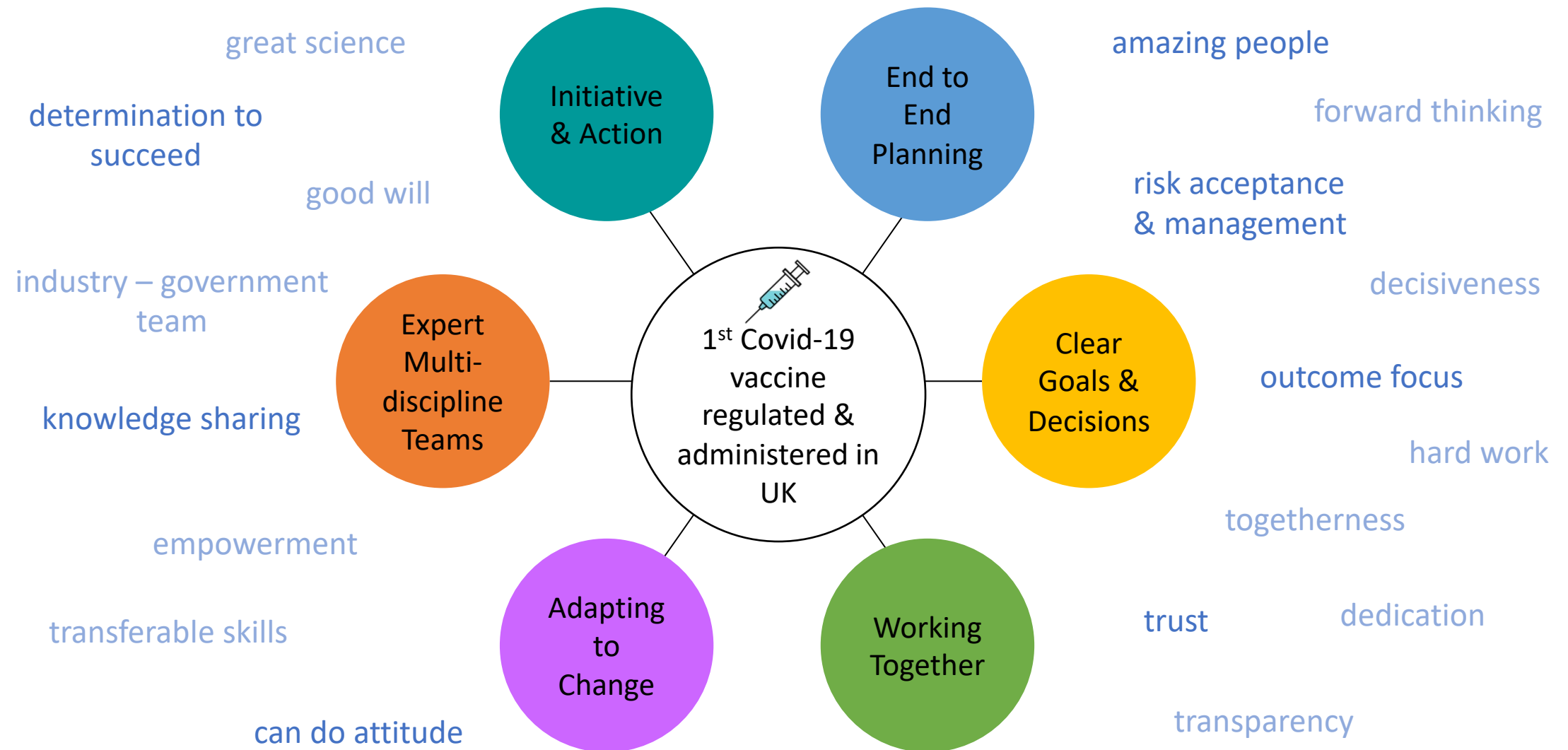
2021 - 2022



Outcomes
Future Perspectives



How did we do it ... so quickly?



Industry Initiative and Action

BIA COVID-19 Vaccine Manufacturing Group: 2020 headline activities



February 2020

Capability Survey sent out to bioprocessing community getting them ready to mobilise when required.

Supported the work of **Oxford University** to build a consortium over a weekend to scale up manufacturing of their adenovirus vaccine against COVID-19, successfully bidding to UKRI in partnership with Pall, Fujifilm, Cobra, Oxford Biomedica, the CGT Catapult and VMIC to develop rapid scale up of the vaccine to a 1M dose scale by the summer

April

Networked the UK medicines manufacturing community and convened a **BIA Covid-19 Vaccine Manufacturing Group** who had the skills and capability to deliver the appropriate treatment, announced formally on Friday 17 April, led by Ian McCubbin OBE and reporting directly into Sir Patrick Vallance

Worked with **Oxford University** (Sandy Douglas) and **Imperial College London** (Robin Shattock), to assess supply chains and support them to scale and rapidly deploy their vaccines



March

Engaged with **CEPI** on UK manufacturing capability

May - August

Continued working with **Oxford University** (Sandy Douglas) and **Imperial College London** (Robin Shattock), to assess supply chains and support them to scale and rapidly deploy their vaccines

August

BIA VMG stepped down as vaccines entered the government machinery, and a **BIA Expert Advisory Group**, led by Ian McCubbin OBE, emerged in its place, to provide advice, support and guidance to the Govt VTF.



Vaccines Taskforce Establishment

Feb 2020



Sep 2020

GOV.UK

→ **Coronavirus (COVID-19)** | Latest updates and guidance

Home > Scientific research and development

Press release

Government launches Vaccine Taskforce to combat coronavirus

<https://www.gov.uk/government/news/government-launches-vaccine-taskforce-to-combat-coronavirus>

Apr 2020

Representatives from government, academia and industry are coming together to form the taskforce. Members will include government Life Sciences Champion Sir John Bell, as well as [AstraZeneca](#), and the [Wellcome Trust](#).

The taskforce is also working closely with the Bioindustry Association, which has set up an industry-led group, to accelerate vaccine development and manufacturing.

GOV.UK

→ **Coronavirus (COVID-19)** | Latest updates and guidance

Home > Coronavirus (COVID-19) > Vaccinations for coronavirus

Notice

The Vaccine Taskforce: objectives and membership of steering group

The purpose of the Vaccine Taskforce (VTF) is to drive forward the development and production of a coronavirus vaccine.

<https://www.gov.uk/government/publications/the-vaccine-taskforce-objectives-and-membership-of-the-steering-group/vtf-objectives-and-membership-of-the-steering-group>

1. Secure access to promising COVID-19 vaccines for the UK population as quickly as possible.
2. Make provision for international distribution of vaccines.
3. Strengthen the UK's onshoring capacity and capability in vaccine development, manufacturing and supply chain to provide resilience for future pandemics.

Kate Bingham	VTF Chair	Divya Chadha Manek	National Institute for Health Research (NIHR)
Clive Dix PhD	VTF Deputy Chair	Ian McCubbin OBE	Manufacturing Advisor - former Senior Vice President for Global Manufacturing and Supply at GSK
Nick Elliott MBE	Director-General, BEIS	Steve Bates OBE	Chief Executive Officer, BioIndustry Association (BIA)
Ruth Todd	Director, BEIS	Professor Jonathan Van-Tam MBE	Clinical and public health Adviser to the VTF, Deputy Chief Medical Officer, Department of Health and Social Care (DHSC)
Madelaine McCernan	Director, UK Government Investments (UKGI)		
Tim Colley	Director, BEIS		
Dan Osgood	Director, BEIS		

Diverse Portfolio

Vaccine type	Vaccine
Adenovirus	Oxford/AstraZeneca
Adenovirus	Janssen
mRNA	Pfizer/BioNTech
mRNA	Moderna
Protein Adjuvant	GlaxoSmithKline/Sanofi Pasteur
Protein Adjuvant	Novavax
Inactivated whole virus	Valneva

Speed of Development

More Proven Technology

Table: <https://www.gov.uk/government/publications/uk-covid-19-vaccines-delivery-plan/uk-covid-19-vaccines-delivery-plan>

Collaborative Partnerships

Industry Partners

Vaccine Developers

VTF

Government Departments

Working Together

“how much vaccine and when”

Knowledge Sharing

Risk Acceptance

Adapt to change

Figure 1: traditional vaccine development timeline – several years

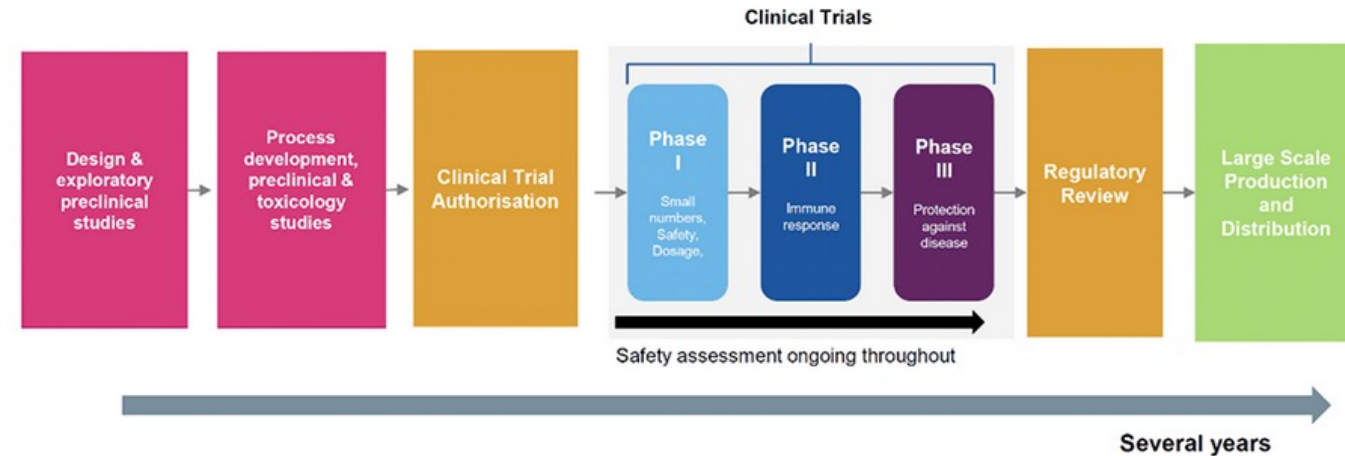
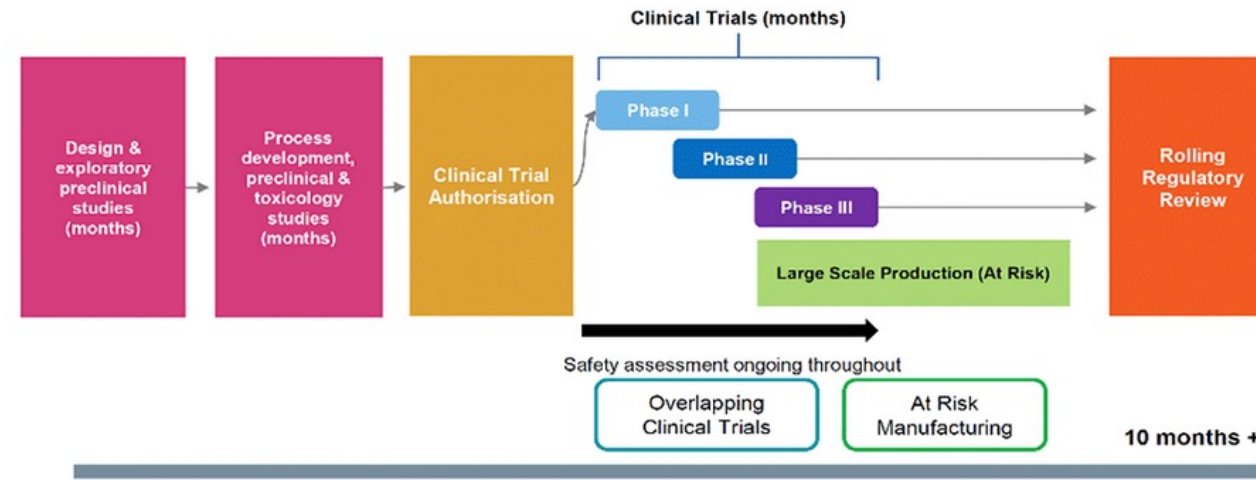
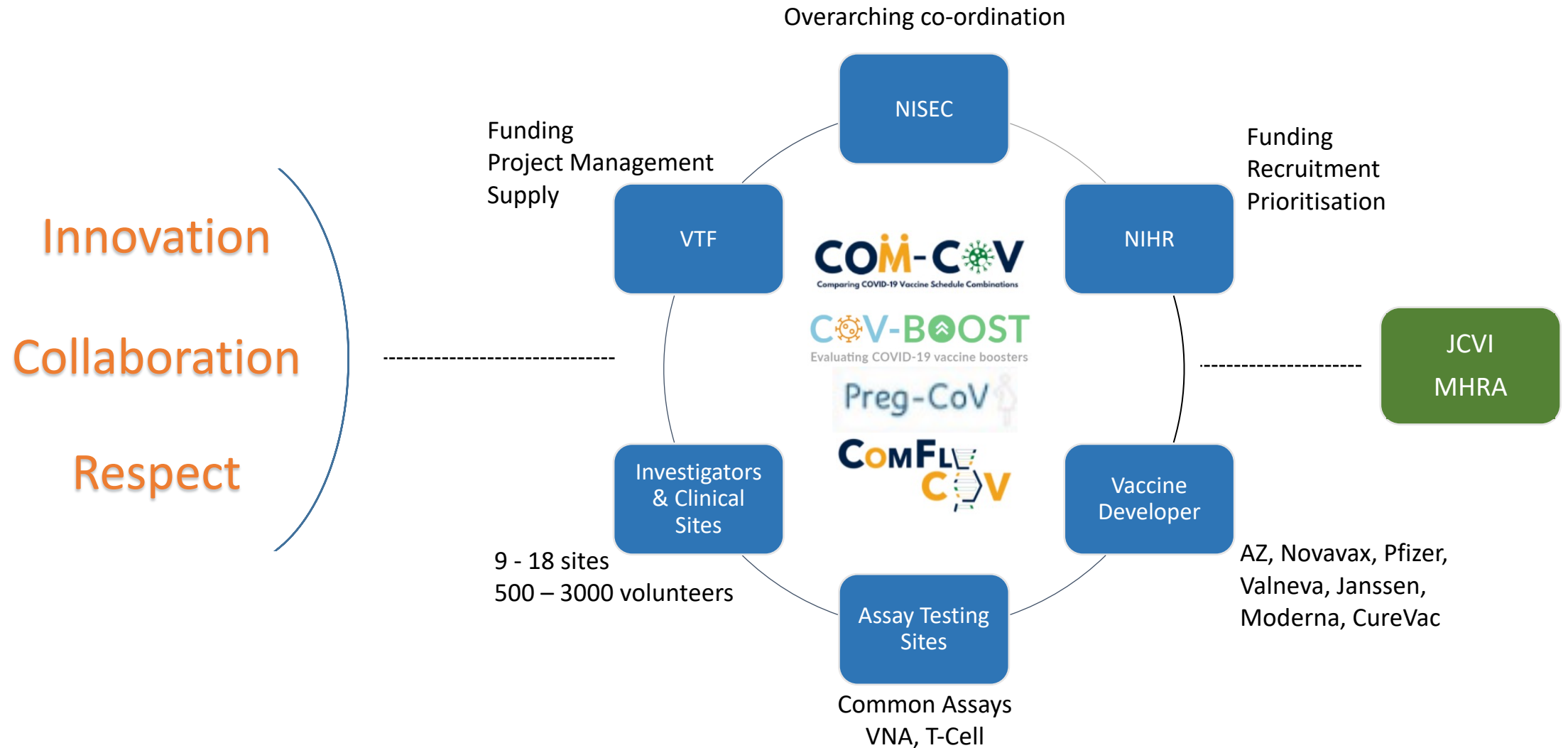


Figure 2: COVID-19 accelerated timeline – 10 months plus



Expert Multi – Disciplinary Teams



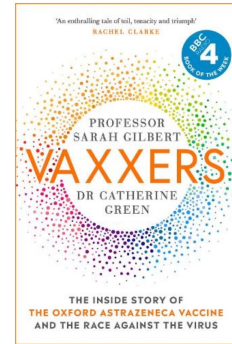
Working Together - Outcomes

UK Vaccine Taskforce 2020 Achievements and Future Strategy

End of year report



https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1027646/vtf-interim-report.pdf



“A process that would normally take months – finding hundreds of volunteers we needed for our first clinical trial – was completed in hours... the MHRA prioritised the work they needed to do to review our trial and later our results”



UK wide COVID-19 study recruits the first global patient in Dundee

Published: 16/11/2020 Read Time: 4 minutes Print

A phase 3 trial for the COVID-19 vaccine developed by The Janssen Pharmaceutical Companies of Johnson & Johnson has this week recruited the first global patient in Dundee.



Novavax Phase 3 COVID-19 vaccine trial completes enrollment in two months

Published: 30/11/2020 Read Time: 4 minutes Print

The NIHR-supported Novavax Phase 3 COVID-19 vaccine trial has achieved its recruitment target just two months after opening in the UK - with 15,203 volunteers from across the country recruited in record time.




Sign up to be contacted for coronavirus vaccine studies


in trials. Our national COVID-19 Vaccine Registry, made up of over 450,000 volunteers across the UK, allowed researchers to rapidly identify and recruit a diverse range of participants to the vaccine trials, to test whether they were safe and effective.


Sources: <https://www.nihr.ac.uk/news>
<https://www.nhs.uk/sign-up-to-be-contacted-for-research?culture=en>


Outcomes

UK and Global Policy Impact

 ComFluCOV	Paper	Safety and Immunogenicity of Concomitant Administration of COVID-19 Vaccines with Seasonal Influenza Vaccines (The Lancet)
	Policy	JCVI statement regarding a COVID-19 booster vaccine programme for winter 2021 to 2022 (Gov.uk)
	Impact	
	Policy	JCVI interim advice: potential COVID-19 booster vaccine programme winter 2021 to 2022 (Gov.uk)

 COV-Boost	Paper	Safety and immunogenicity of seven COVID-19 vaccines as a third dose (booster) following two doses of ChAdOx1 nCov-19 or BNT162b2 in the UK (The Lancet)
	Policy	JCVI statement regarding a COVID-19 booster vaccine programme for winter 2021 to 2022 (Gov.uk)
	Impact	
	Policy	WHO : Interim recommendations for use of the Novavax NVX-CoV2373 vaccine against COVID-19 (WHO iris)

 Com-COV	Paper	Heterologous prime-boost COVID-19 vaccination: initial reactogenicity data (The Lancet)
	Paper	Safety and immunogenicity of heterologous versus homologous prime-boost schedules with an adenoviral vectored and mRNA COVID-19 vaccine (The Lancet)

 Com-COV2	Letter	Reduced neutralisation of SARS-COV-2 Omicron-B.1.1.529 variant by post-immunisation serum (The Lancet)
	Paper	Immunogenicity, safety, and reactogenicity of heterologous COVID-19 primary vaccination incorporating mRNA, viral-vector, and protein-adjuvant vaccines in the UK (The Lancet)
	Policy	WHO : Interim recommendations for use of the Novavax NVX-CoV2373 vaccine against COVID-19 (WHO iris)
	Impact	

Source: <https://nisc.ac.uk/outputs-policy-impact>

Further Reading

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)02717-3/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02717-3/fulltext)

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)02718-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02718-5/fulltext)

End to End Planning – Vaccine Deployment

Feb 2020



Dec 2020

Package leaflet: Information for the recipient

COVID-19 mRNA Vaccine BNT162b2 concentrate for solution for injection
tozinameran

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1043779/Temporary_Authorisation_Patient_Information_BN_T162_18_0_UK_Clean.pdf



Vaccine freezers

<https://www.bbc.co.uk/news>

Press release

**Prime Minister and Head of the NHS
call for volunteers to support National
Booster Effort**

Government and NHS announce ambition to recruit tens of
thousands of volunteers to help get jabs into arms.

<https://www.gov.uk/government/news/prime-minister-and-head-of-the-nhs-call-for-volunteers-to-support-national-booster-effort>

Supply

Vaccination Centres

Large scale venues e.g. football
stadiums

Hospital Hubs, using NHS trusts
across the country

Local vaccination services, made
up of sites led by general practice
teams working together in
already established primary care
network and pharmacy teams
through community pharmacies

<https://www.gov.uk/government/publications/uk-covid-19-vaccines-delivery-plan/uk-covid-19-vaccines-delivery-plan>

Demand & Deployment

JCVI Priority Groups

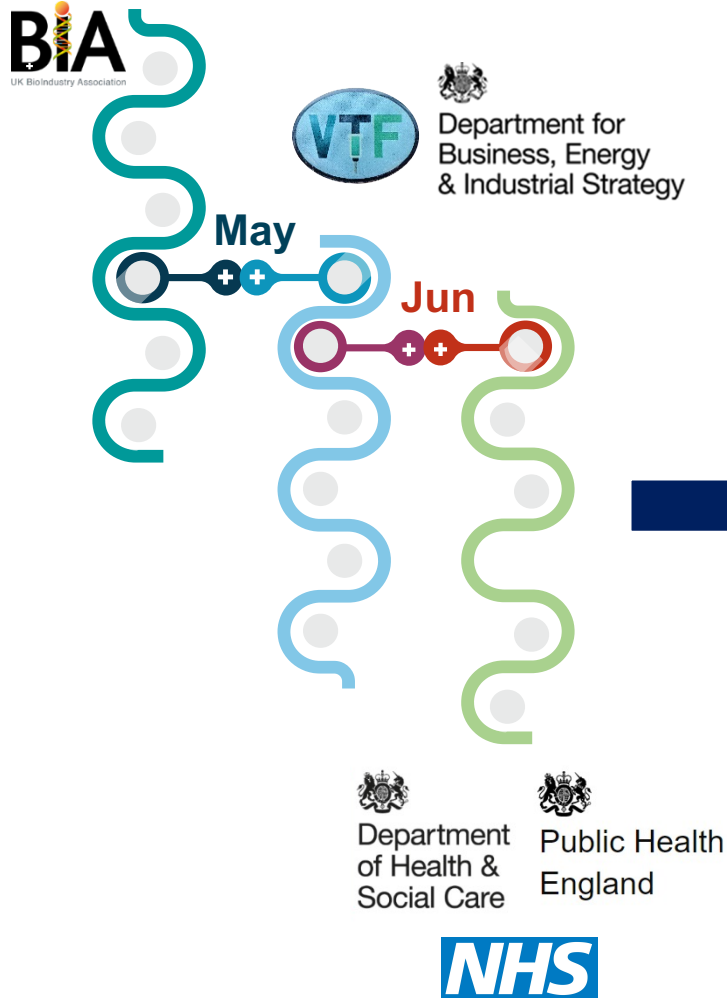
1	Residents in a care home for older adults and their carers
2	All those 80 years of age and over
3	Frontline health and social care workers
4	All those 75 years of age and over
5	All those 70 years of age and over
6	Clinically extremely vulnerable individuals*
7	All those 65 years of age and over
8	All individuals aged 16 years** to 64 years with underlying health conditions which put them at higher risk of serious disease and mortality***
9	All those 60 years of age and over
10	All those 55 years of age and over
11	All those 50 years of age and over

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/950113/jcvi-advice-on-priority-groups-for-covid-19-vaccination-30-dec-2020-revised.pdf



Flicker.com

Collaboration for Success



Dec 20 – Jan 21

- 02** MHRA Approval Pfizer vaccine, global first
- 08** UK first country to administer COVID-19 Vaccine (Pfizer)
- 30** MHRA Approval OU/AZ vaccine
- 04 Jan** UK first country to administer COVID-19 Vaccine (OU/AZ)

Aug – Dec 21

Vaccination open for over 18s, 15 -18yr, over 12s

Boosters open for over 50s, over 40s, over 18s

International supply



Apr – Jul 21

Mid Apr, 15 million vaccinations for the most vulnerable groups 1-4

Mid Jul, 17 million vaccinations for all priority groups 1-9

Vaccination open for over 40s

Future Perspectives



NIHR survey reveals public's attitudes to health research following coronavirus

Published: 20/05/2021 Read Time: 6 minutes [Print](#)

71% of UK adults think health care research played an important role in the pandemic
29% trust health care research more than before the pandemic
27% are more likely to take part in health research

COVID-19 antivirals study UK's fastest ever recruiting trial of its kind

Published: 25/01/2022 Read Time: 6 minutes [Print](#)

4500 participants enrolled in 7 weeks



Saving and Improving Lives: The Future of UK Clinical Research Delivery

Published 23 March 2021

*"The COVID-19 pandemic has hammered home the **strength of our research base** through rapid delivery of platform trials... **Collaboration** has been the foundation of our success...*

...for all the successes of our COVID-19 research, we have seen other research suffer...

*...we need to go even further to support **innovative trials** across all phases, treatment types and conditions – to embed innovative approaches across our **entire ecosystem**"*



Sources: <https://www.nihr.ac.uk/news>
<https://www.gov.uk/government/publications/the-future-of-uk-clinical-research-delivery>
<https://bepartofresearch.nihr.ac.uk/>

Thank You

Collaboration is not just for pandemics!

Vaccines Taskforce

