

Joint Committee on Vaccination and Immunisation (JCVI)

ADVICE ON COVID-19 VACCINATION

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Evidence considered

OpenSAFELY

QCOVID

Public Health England

Primary Care data

Secondary Care data

Care home outbreak data

COVID-19 inequalities review

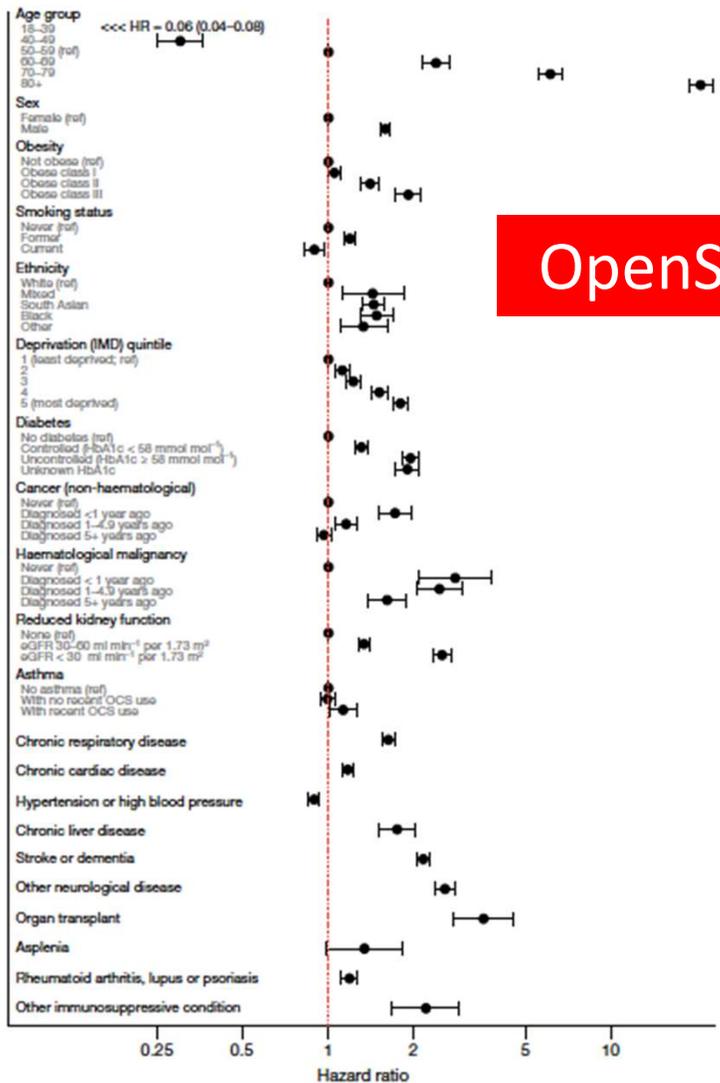
Mathematical modelling

Occupational exposure review

Deployment considerations

Pre-clinical and Phase 1, 2, 3 data from Pfizer BioNTech

Pre-clinical and Phase 1, 2 data on other COVID-19 vaccines



OpenSAFELY

Q-COVID

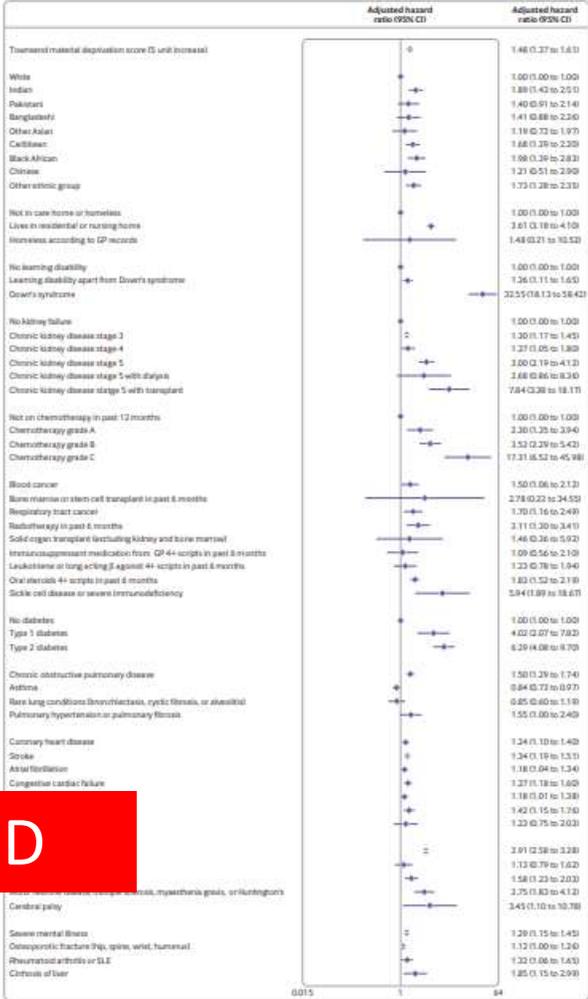
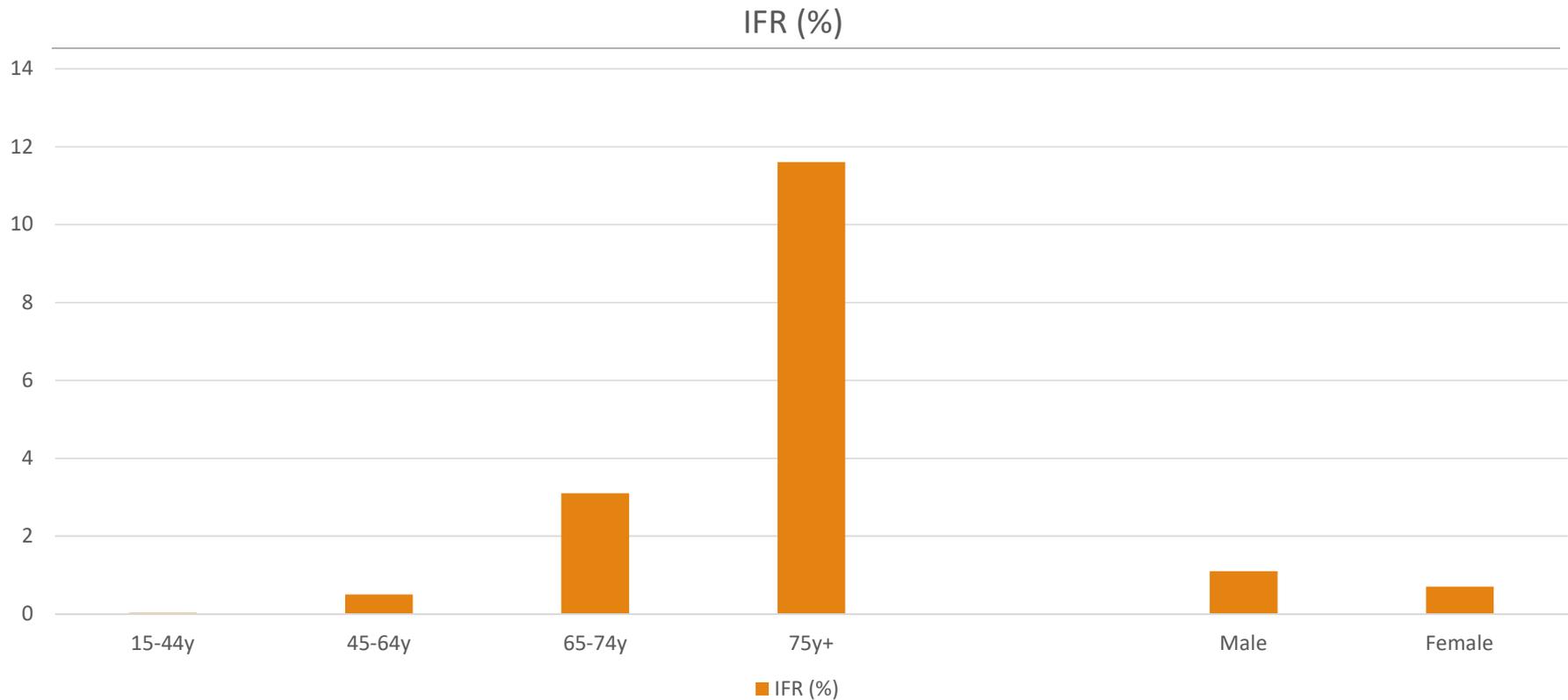


Fig 1 | Adjusted hazard ratio (95% CI) of death from covid-19 in women in derivation cohort, adjusted for variables shown, deprivation, and fractional polynomial terms for body mass index (BMI) and age. Model includes fractional polynomial terms for age (3 3) and BMI (0.5 0.5 ln(bmi)) and interaction terms between age terms and type 2 diabetes. Hazard ratio for type 2 diabetes reported at mean age. GP=general practitioner; SLE=systemic lupus erythematosus. (QResearch database version 44; study period 24 January 2020 to 30 April 2020)

Infection fatality ratio (by age and sex)



Principles and aim of the programme

JCVI agreed that the principle aim of the first phase of the programme should be prevention of mortality

JCVI also agreed that maintenance of the health and social care systems were important

We have very limited whether the vaccines prevents transmission

Modelling shows we need 70% coverage with a highly effective vaccine to stop transmission

Therefore direct protection of those most at risk of mortality was the highest priority

Priority groups are ranked according to the risk of mortality

Clearer risk/benefit profile in high-risk groups

Key delivery issues

High uptake is key for an effective programme

Simple programmes are usually quicker and easier to deliver

Age based programmes (e.g. influenza) usually have good uptake

Inequalities seen in COVID-19 disease rates, morbidity and mortality

- access to healthcare
- deprivation
- ethnicity

Good uptake in these groups is highly important

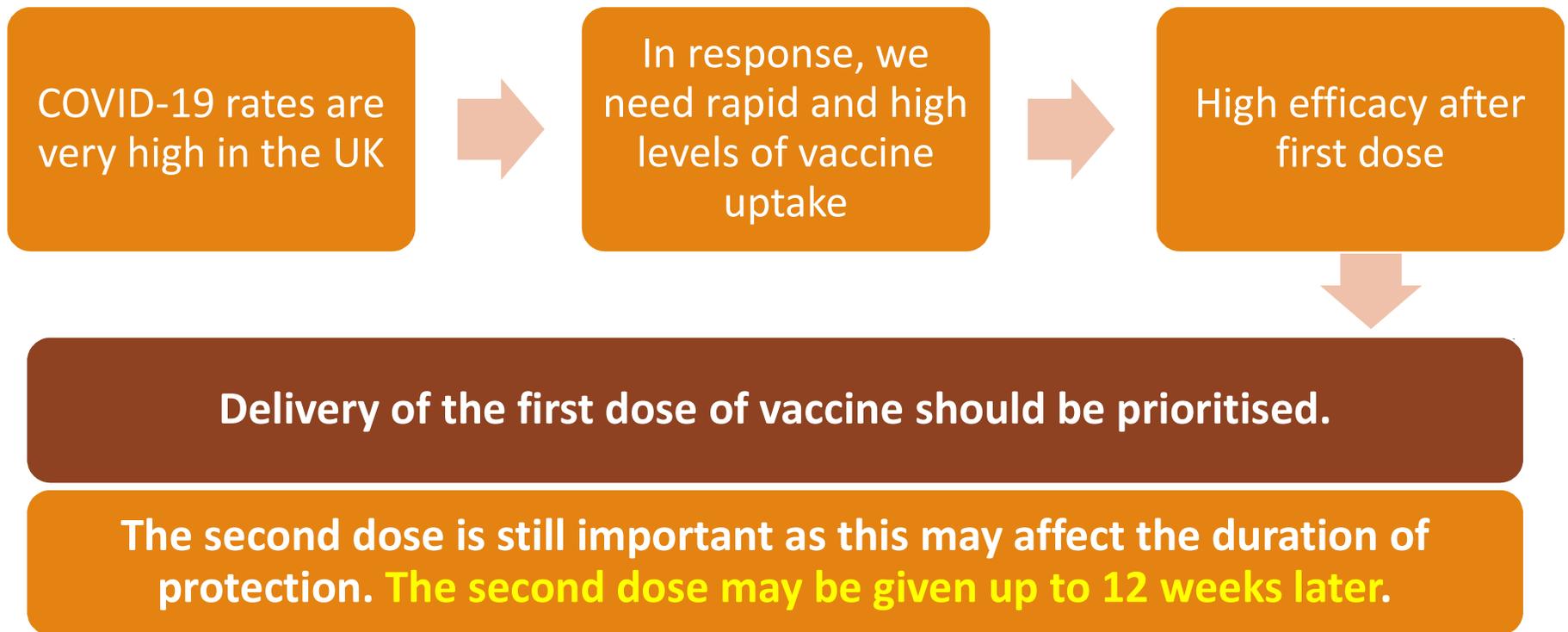
Flexibility needed in delivery

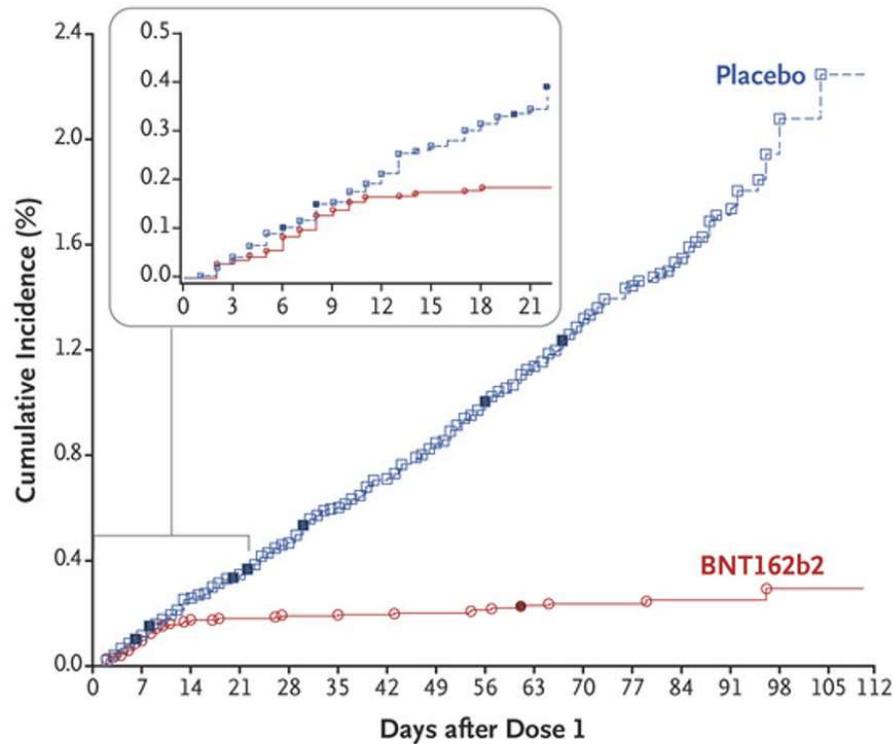
First phase of the programme

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

Joint Committee on Vaccination and Immunisation

Advice on dosing interval for COVID-19 vaccines





VE first dose

Short-term vaccine efficacy from the first dose of the Pfizer-BioNTech vaccine is calculated at around 90%

Short-term vaccine efficacy from the first dose of the AstraZeneca vaccine is calculated at around 70%, with high protection against severe disease

Extended schedule

For both Pfizer-BioNTech and AstraZeneca vaccines, a 2-dose schedule is advised.

In the context of the epidemiology of COVID-19 in the UK in late 2020, the JCVI placed a high priority on promoting rapid, high levels of vaccine uptake among vulnerable persons.

Data indicate high efficacy from the first dose of both Pfizer-BioNTech and AstraZeneca vaccines

JCVI advised that delivery of the first dose to as many eligible individuals as possible should be initially prioritised over delivery of a second vaccine dose.

This should maximise the short-term impact of the programme.

The second dose may be given up to 12 weeks following the first dose

JCVI advises that the second vaccine dose should be with the same vaccine as for the first dose. Switching between vaccines or missing the second dose is not advised as this may affect the duration of protection.

VE calculation Pfizer-BioNTech

Published efficacy between dose 1 and 2 of the Pfizer vaccine was 52.4% (95% confidence interval (CI) 29.5 to 68.4%)

Based on the timing of cases accrued in the phase 3 study, most of the vaccine failures in the period between doses occurred shortly after vaccination, suggesting that short-term protection from dose 1 is very high from day 10 after vaccination

Using data for those cases observed between day 15 and 21, efficacy against symptomatic COVID-19 was estimated at 89% (95% CI 52 to 97%).

Further work

Review of Phase 3 data for other developmental COVID-19 vaccines

Monitor uptake – with a clear focus on inequalities

Monitor safety and effectiveness and data on impact on transmission

Consider options for the next phase of the programme

Options include:

- Occupational vaccination
 - Further reduction in hospitalisation
 - Key public services
 - Wider vaccination in the population
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COVID-19 Vaccine Uptake 2021 - National Immunisation Management System Data

Provisional Week 2 report - weekly cumulative uptake data for England on COVID-19 vaccinations given from 8 December

NATIONAL	80 and over vaccinated with 1 dose			80 and over vaccinated with 2 doses		
	People in NIMS cohort	Number vaccinated	% vaccine uptake	People in NIMS cohort	Number vaccinated	% vaccine uptake
England Total	2,996,971	1,036,605	34.6	2,996,971	292,875	9.8
NATIONAL	Under 80 years vaccinated with 1 dose			Under 80 years vaccinated with 2 doses		
	People in NIMS cohort	Number vaccinated	% vaccine uptake	People in NIMS cohort	Number vaccinated	% vaccine uptake
England Total	57,968,147	960,699	1.7	57,968,147	81,228	0.1
NATIONAL	Vaccinated with 1 dose			Vaccinated with 2 doses		
	People in NIMS cohort	Number vaccinated	% vaccine uptake	People in NIMS cohort	Number vaccinated	% vaccine uptake
England Total						
75 to under 80	2,117,869	118,375	5.6	2,117,869	4,657	0.2
70 to under 75	2,895,326	37,227	1.3	2,895,326	2,503	0.1
65 to under 70	2,891,541	38,714	1.3	2,891,541	3,743	0.1
60 to under 65	3,437,690	85,823	2.5	3,437,690	8,849	0.3
55 to under 60	4,043,673	116,997	2.9	4,043,673	11,746	0.3
50 to under 55	4,171,725	115,332	2.9	4,171,725	11,238	0.3
Under 50	38,410,323	448,231	1.2	38,410,323	38,492	0.1