

# **COVID-19 Vaccine Info Seminar / Q&A**

**with Professor Eleanor Riley (Professor of Immunology & Infectious Disease)  
& Dr Carey Lunan (GP)**

## **Welcome & Introduction**

Ian Brooke (EVOCC, Deputy Chief Executive)

## **COVID-19 Vaccines**

Professor Eleanor Riley (Professor of Immunology & Infectious Disease)

## **COVID-19 Vaccine programme**

Dr Carey Lunan (GP)

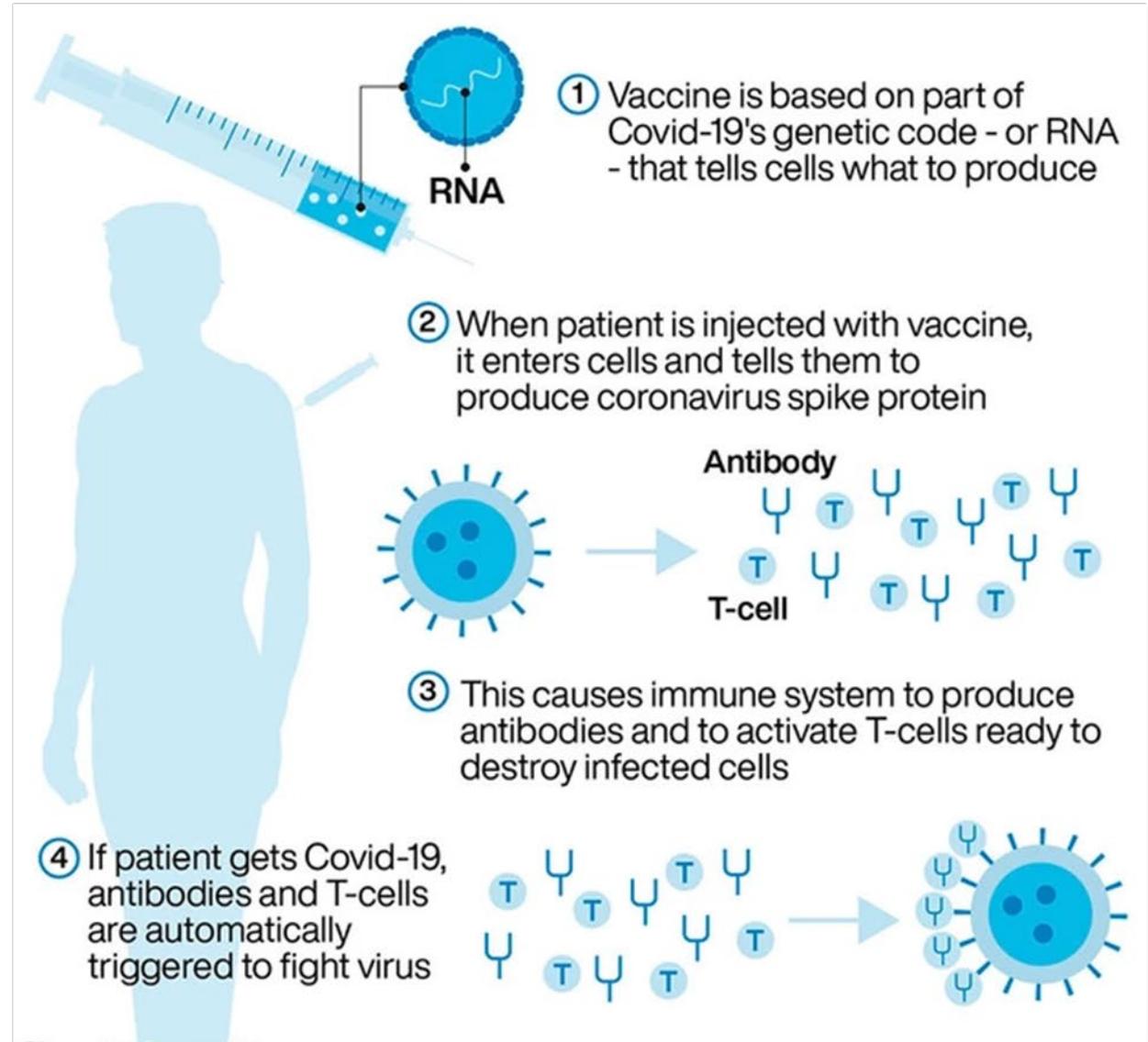
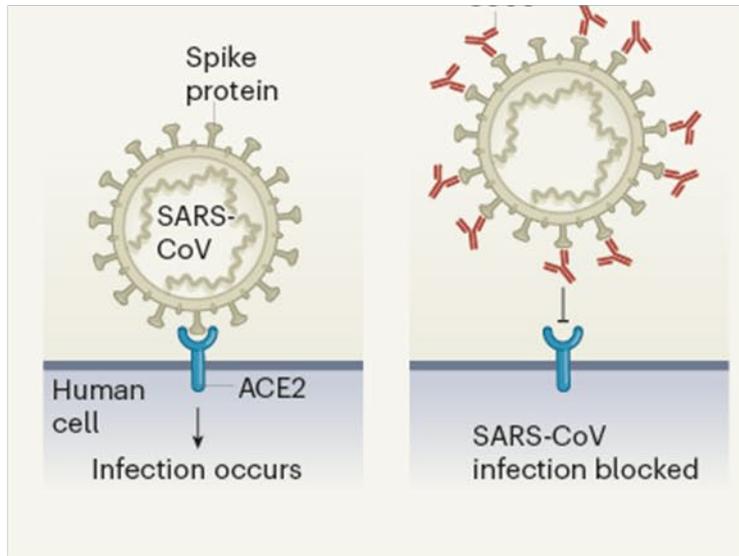
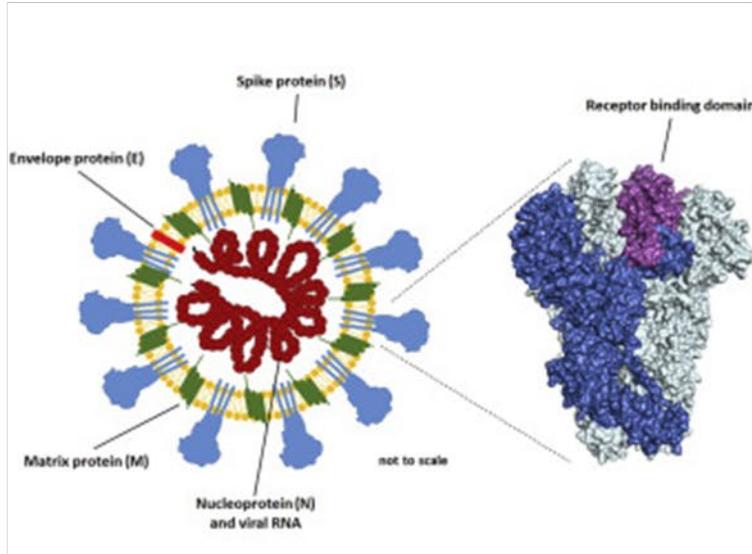
## **Your Questions**

# COVID-19 Vaccines

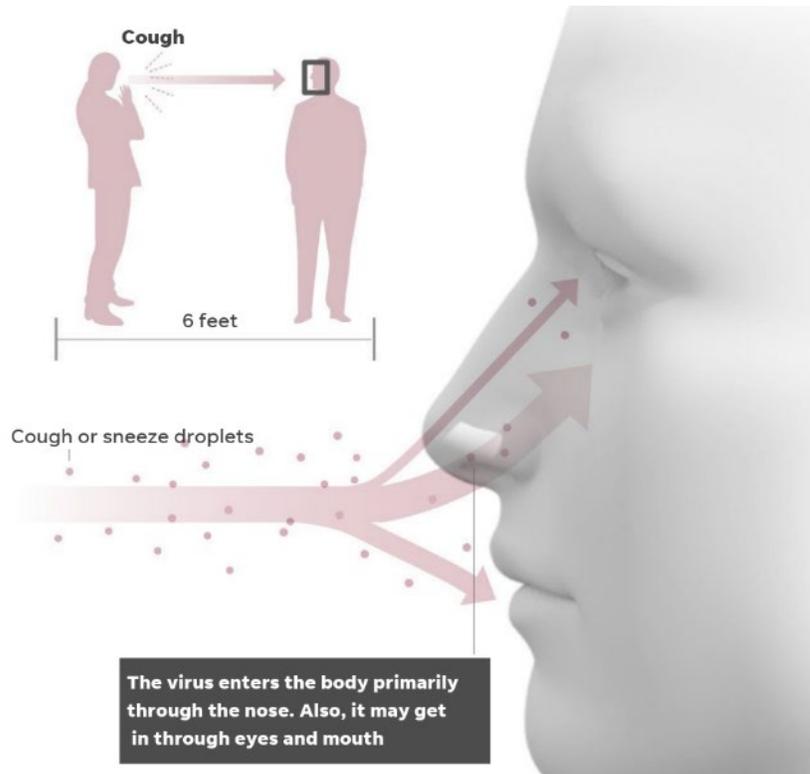
Professor Eleanor Riley

(Professor of Immunology & Infectious Disease)

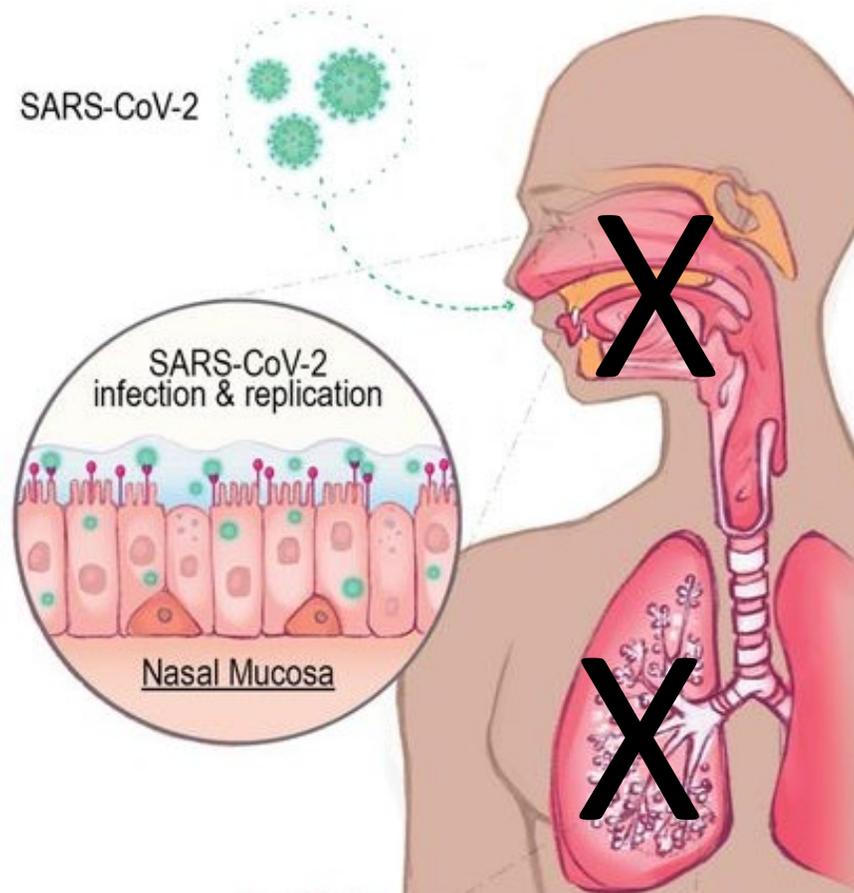
# 1. How does the vaccine work?



## 2. Does the vaccine prevent transmission?



The virus enters and leaves the body through the nose and mouth



The virus initially infects the cells of the nose and throat, and replicates there. It may subsequently infect cells in the lungs and elsewhere.

Vaccination reduces infection by ~70%, and household transmission by 40-50% = ↓ in spread of ~90%

Vaccination reduces severe disease and death by >95%

# 3. Vaccine Safety – how is it assessed?

## Pre-clinical and Clinical trials:

- Laboratory animals
  - Small numbers of healthy adults, then
  - Larger numbers of adults, including those with underlying health issues
- Blood tests, symptoms, post mortem tissue analysis
- Blood tests for health of liver, kidney, heart, muscle etc  
Clinical – fever, nausea, lethargy, pain, any other illness  
Both repeated regularly throughout the trial

## Surveillance:

- Long term follow up of everyone in a clinical trial – at least 12 months
- Routine monitoring of vaccine roll out – MHRA Yellow Card scheme to report suspected side effects

## 4. Vaccination and social distancing restrictions:

- Now that >80% of those at risk of severe Covid-19 have had at least one dose of vaccine we are seeing a sharp decline in hospital admissions and deaths
- Once the rest of the adult population is vaccinated we will see an even faster decline in new infections
- Cases and infections should continue to decline even as we emerge from lockdown
- This should allow life in the UK to return to something close to normal
- However, as the vaccines reduce but don't totally prevent infection the virus will continue to circulate and unvaccinated/immunocompromised people will still be at risk
- As we are starting to open up before everyone is vaccinated, there is a risk of another wave of infections, hospital admissions and long COVID cases, although this wave may be small
- People who have not yet been fully vaccinated, and those whose underlying health conditions mean the vaccine may work less well, should remain cautious and continue to take precautions

# 5. Risks, challenges and opportunities

It should be safe for us to see - and to hug and kiss - our loved ones in the near future, but we need to proceed cautiously:

- It will take until mid-July for Phases 1 and 2 (those at high risk of severe disease) to be complete – i.e. one month after second dose
- If new virus variants can escape the vaccine, this could delay things.
- We need to keep infections low to stop new and dangerous variants emerging
- This may mean keeping some restrictions in place even once case numbers fall – this will be hard for many people to understand
- Even if the UK can return to “normal” some international travel restrictions will continue until vaccine coverage is high (and infections are low) everywhere.

# COVID-19 Vaccine Programme

Dr Carey Lunan (GP)

# Vaccine roll-out: who? (the JCVI criteria)

**Phase 1** – first doses completed by mid-February, second doses almost complete

- all residents in a care home for older adults and their carers
- all those 70 years of age and over
- frontline health and social care workers
- clinically extremely vulnerable individuals

**Phase 2** – first doses completed mid April, second doses ongoing

- all those 50-65 years of age and over
- all individuals aged 16 to 64 with underlying health conditions

**Phase 3** – aim to complete by late summer

- All remaining adults (18 years and older)

- chronic respiratory disease, including COPD, cystic fibrosis and severe asthma
- chronic heart disease (and vascular disease)
- chronic kidney disease
- chronic liver disease
- chronic neurological disease including epilepsy
- Down's syndrome
- severe and profound learning disability
- diabetes
- organ, bone marrow and stem cell transplant recipients
- people with specific cancers
- immunosuppression due to disease or treatment
- asplenia and splenic dysfunction
- morbid obesity
- severe mental illness

# Vaccine rollout: where?

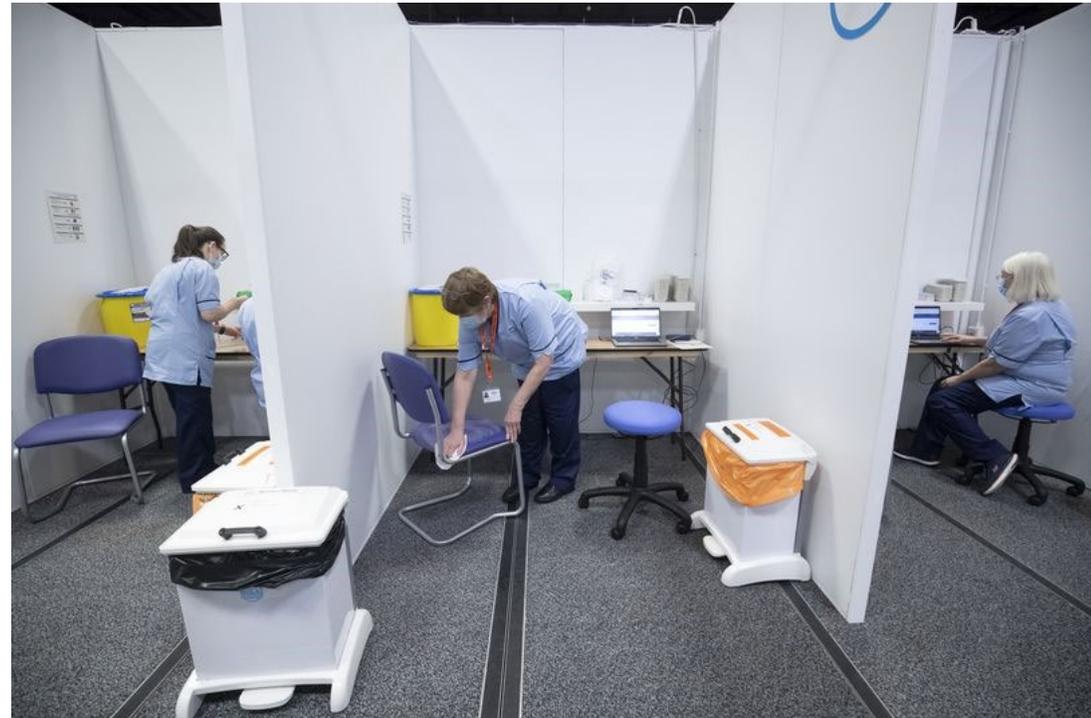
## GP surgeries

- Over 75 years, 'ambulant'
- Shielding groups



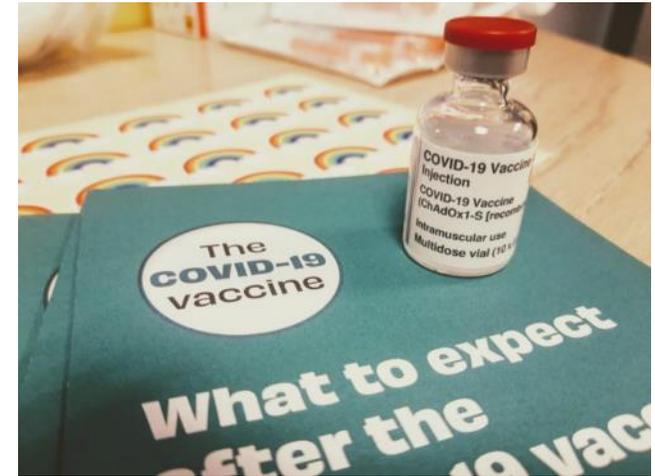
## Mass vaccine centres, local hubs

- Everyone else!



# Vaccine rollout: challenges?

- Logistics (storage, multi-vials, 2 doses each)
  - Travel to mass vaccine centres
  - Receiving vaccine invites
  - Rescheduling appointments
  - Changing evidence and guidance (dose intervals, side effects)
  - Vaccine 'hesitancy' / low confidence
  - Harder-to-reach groups and their specific challenges
- 
- BUT all in all a huge success story! First doses so far...
    - >97% in those aged 60+
    - ~ 85% in 50-59 year olds
    - ~ 30% in 16-49 year olds



# Harder-to-reach groups...include:

- Homeless
- Gypsy and traveller communities
- Those living in poverty
- Those with significant mental health issues
- Those with substance use issues
- Black and minority ethnic groups

Harder to reach AND higher risk. Careful and proactive approach needed.  
Latest vaccine uptake figures data verify this.

# Some useful resources

- National vaccine line 0800 030 8013 (info, appts)
- NHSinform website [www.nhsinform.scot/covid19vaccine](http://www.nhsinform.scot/covid19vaccine)
- Lothian unpaid carers can self-register via Lothian webpage [here;](https://www.nhslothian.scot/Coronavirus/Vaccine/Pages/UnpaidCareers.aspx)  
<https://www.nhslothian.scot/Coronavirus/Vaccine/Pages/UnpaidCareers.aspx>
- Transport assistance: patients can email [covid\\_19responsescotland@redcross.org.uk](mailto:covid_19responsescotland@redcross.org.uk)

# Your Questions