



Bath & North East Somerset, Swindon and Wiltshire

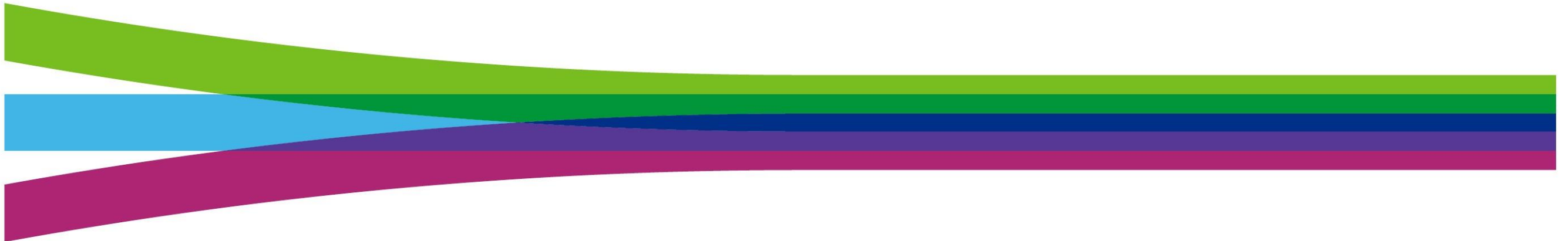
LMNS
Local Maternity &
Neonatal System (LMNS)



**Bath and North East Somerset,
Swindon and Wiltshire**
Clinical Commissioning Group

Opening Doors – A Conversation about COVID-19 vaccination in pregnancy, breastfeeding and fertility

8th December 2021



Welcome and Introductions

- **Introductions**
- Dr Jo Baden- Fuller – Consultant Obstetrician
- Dr Colin Payton – Clinical Support Manager, BSW and Consultant Occupational Physician
- Dr Katherine Oldridge – GP and GP Maternity Lead, BSW
- Sandy Richards – Midwife

Format of Webinar

Item	Speaker
Jennie's Story	Jennie
COVID- 19 : What are the risks in Pregnancy?	Dr Jo Baden Fuller
Vaccination against COVID-19: The Science and Safety	Dr Colin Payton
Vaccination Information	Dr Katherine Oldridge
Questions and Answers	All

Quick Question to start.

How do you feel about COVID- 19 vaccination in pregnancy?

- 1- Very anxious
2. Somewhat anxious
3. Not sure
4. Slightly confident
5. Very confident

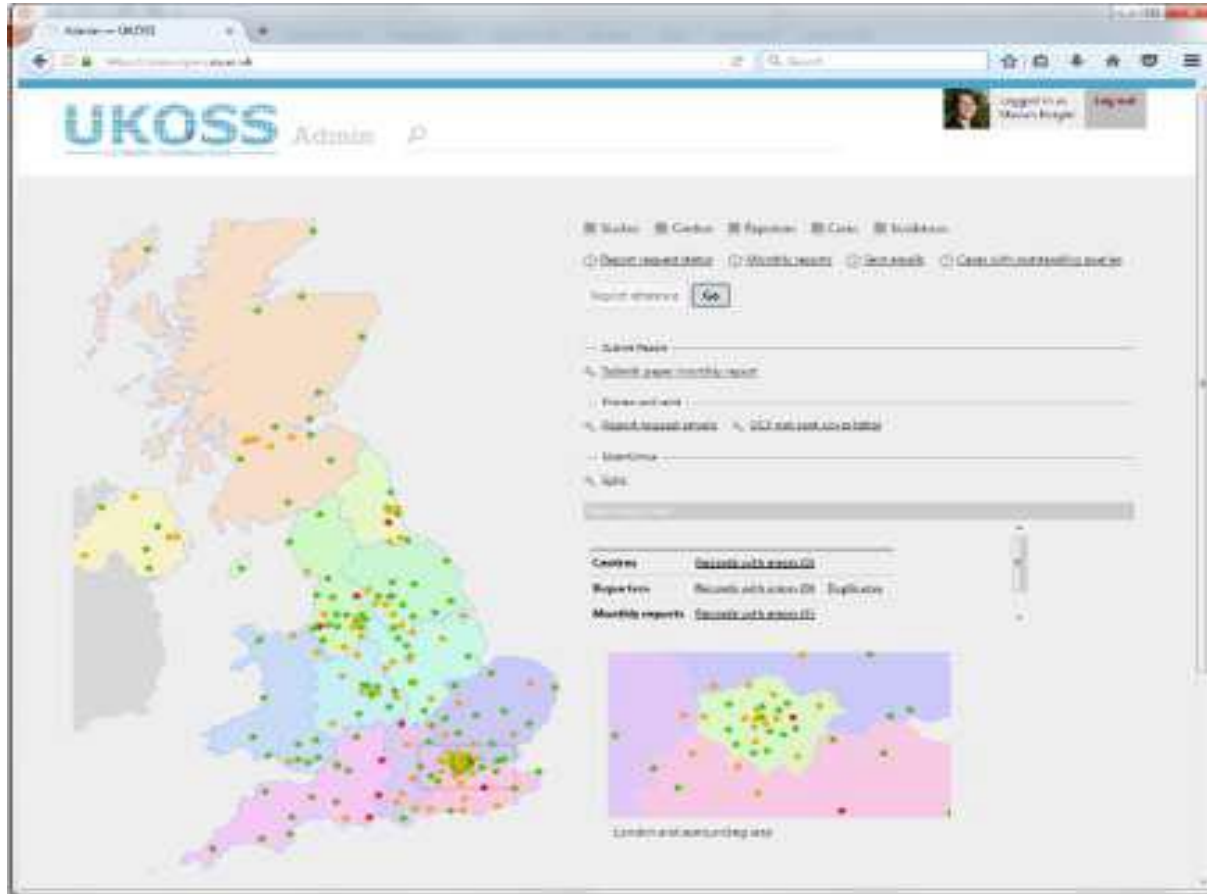
Jennie's Story



What are the risks in pregnancy from COVID-19

- Pregnant women are no more or less likely to get COVID-19 than the general population.
- Two thirds of women have no symptoms. The most common symptoms are cough and fever in pregnant women.
- The risk of serious complications and death is low but there is growing evidence that pregnant women may be at increased risk of severe illness compared to non pregnant women.

United Kingdom SARS- COV-2 Infection in pregnancy Study



- Data collection from all maternity units in the UK (194 units)
- Women admitted to hospital with confirmed COVID-19 in pregnancy
- Between 1st March 2020 and 11th July 2021

6912 confirmed
COVID-19 cases
4/1000 pregnant
women admitted




3371 (49%)
symptomatic

3541 (51%)
asymptomatic

Source – Nuffield Department of Population Health and UKOSS

Disease severity

The proportion of hospitalized symptomatic women with moderate to severe COVID-19 has increased

- First wave: 
- Alpha variant: 
- Delta variant: 

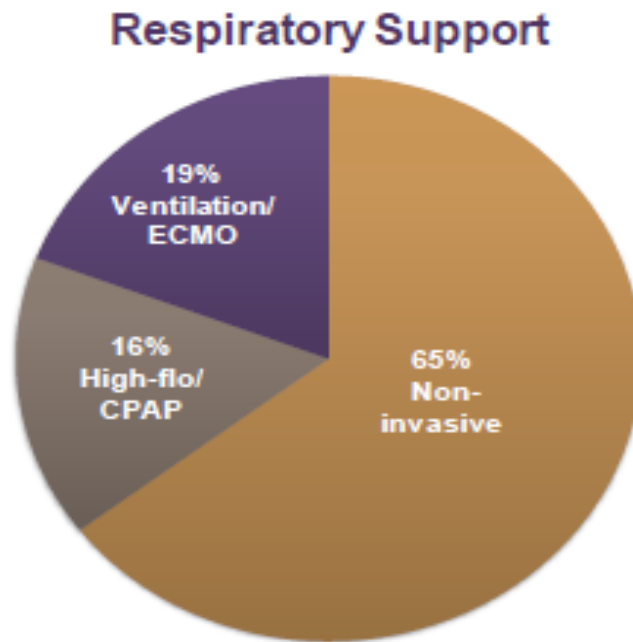
Pregnant and postpartum women appear disproportionately severely affected compared to non-pregnant people of reproductive age



COVID-19 Infection in Pregnancy- UKOSS Information

Of 3371 women admitted to hospital with symptoms:

- Nearly 1 in 2 had a Caesarean birth (1440) (twice as likely to have emergency Caesarean
- 1 in 4 had pneumonia (812)
- 1 in 5 women needed respiratory support (701)
- Pregnant women have a higher risk of intensive care admission than women of the same age who are not pregnant. 1 in 10 needed intensive care (336)
- 15 women sadly died



Who is at greatest risk?

- The risk of admission to hospital and risk of severe COVID-19 infection is greatest in women:

- aged over 35
- BMI > 30
- pre-existing comorbidity
- non-White ethnicity

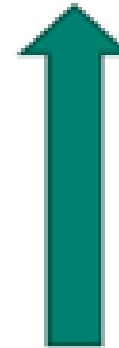
- Third trimester

x 2.1

x 2.7

70%

66%



risk of
ICU admission¹

83% of those admitted

What do we know about Delta variant?

Overall:

- 1 in 4 have pneumonia (24%)
- 1 in 5 need respiratory support (21%)
- 1 in 10 need intensive care (10%)
- 15 maternal deaths

Delta variant:

- >1 in 3 have pneumonia (37%)
- 1 in 3 need respiratory support (33%)
- 1 in 8 need intensive care (15%)
- No maternal deaths



Outcomes for Babies



Of 2973 women with COVID-19 who have given birth:

- 1 in 3 women have a pre-term birth (under 37 weeks gestation (985) (twice as likely (12% compared to 5.8%))
- 5% of the pre-term births were less than 32 weeks gestation (140)
- 1 in 5 babies required admission to a neonatal unit
- 33 women had stillbirths (1 in 100 of infected women - twice as likely.

Source Nuffield Dept. of Population Health and UKOSS

Delta Variant outcomes

Overall:

- 1 in 100 have a stillbirth
- 1 in 3 have a preterm birth
- 1 in 5 babies admitted to neonatal unit

Delta variant:

- 1 in 100 have a stillbirth



- In Alpha variant: 23% increase in NNU admission



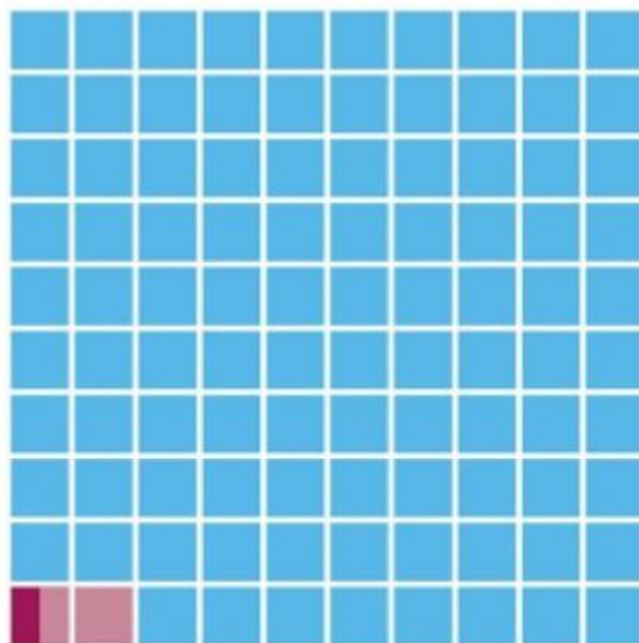
Source Nuffield Dept. of Population
Health and UKOSS

Impact of vaccination:

Hospital admissions with symptomatic COVID-19 in pregnancy

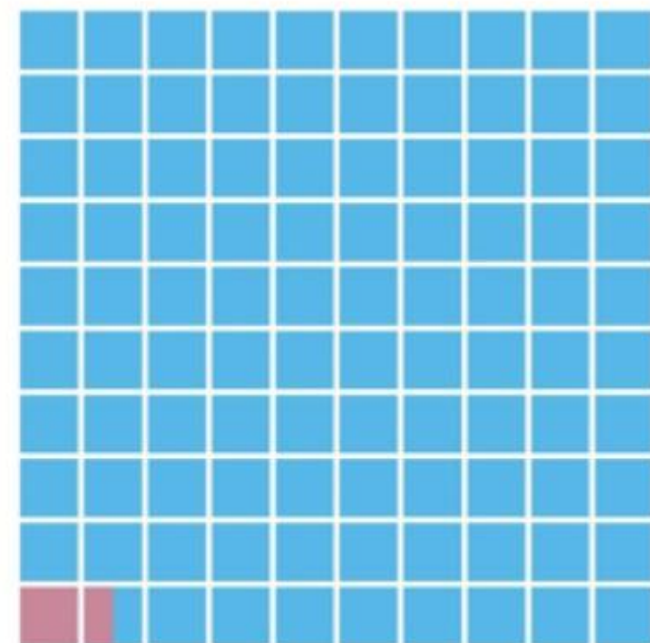
1st February 2021 to 30th September 2021

1714 pregnant women
admitted to hospital with
symptomatic COVID



98.1% unvaccinated
1.5% one dose
0.4% two doses

235 of whom (14%)
were admitted to
intensive care



98.7% unvaccinated
1.3% one dose

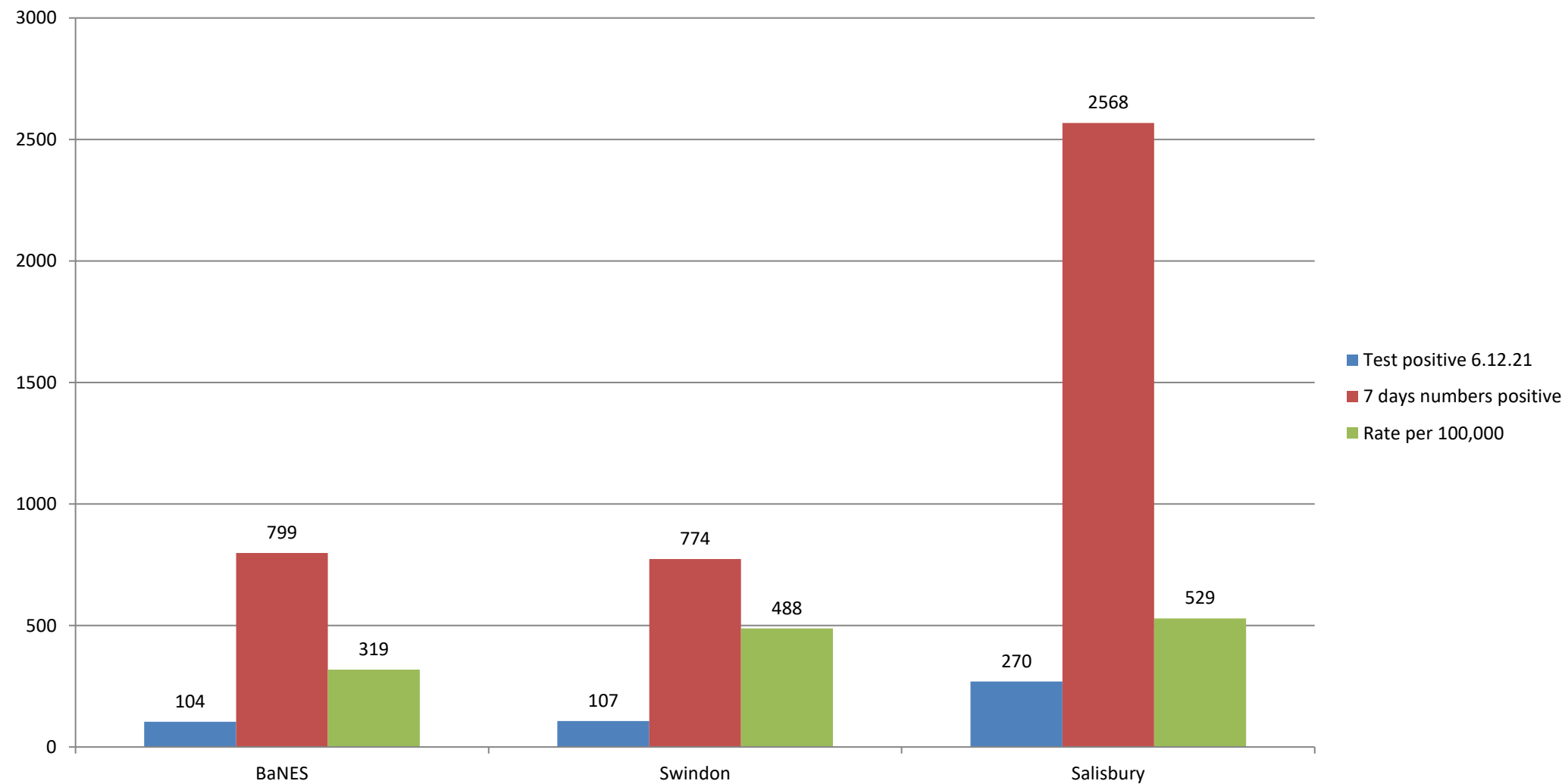


Summary

- Ethnicity, obesity, age and comorbidities increase risk of hospitalization and severity
- Risks to pregnant women have increased with changing variants
 - 1 in 3 have pneumonia and need respiratory support
 - 1 in 8 need intensive care
 - Up to 1 in 3 have a preterm birth
 - 1 in 5 babies need neonatal unit admission
- Evidence of reluctance to use evidence-based medical therapies in pregnancy
- ***Vaccination is strongly protective against severe disease in the real world***

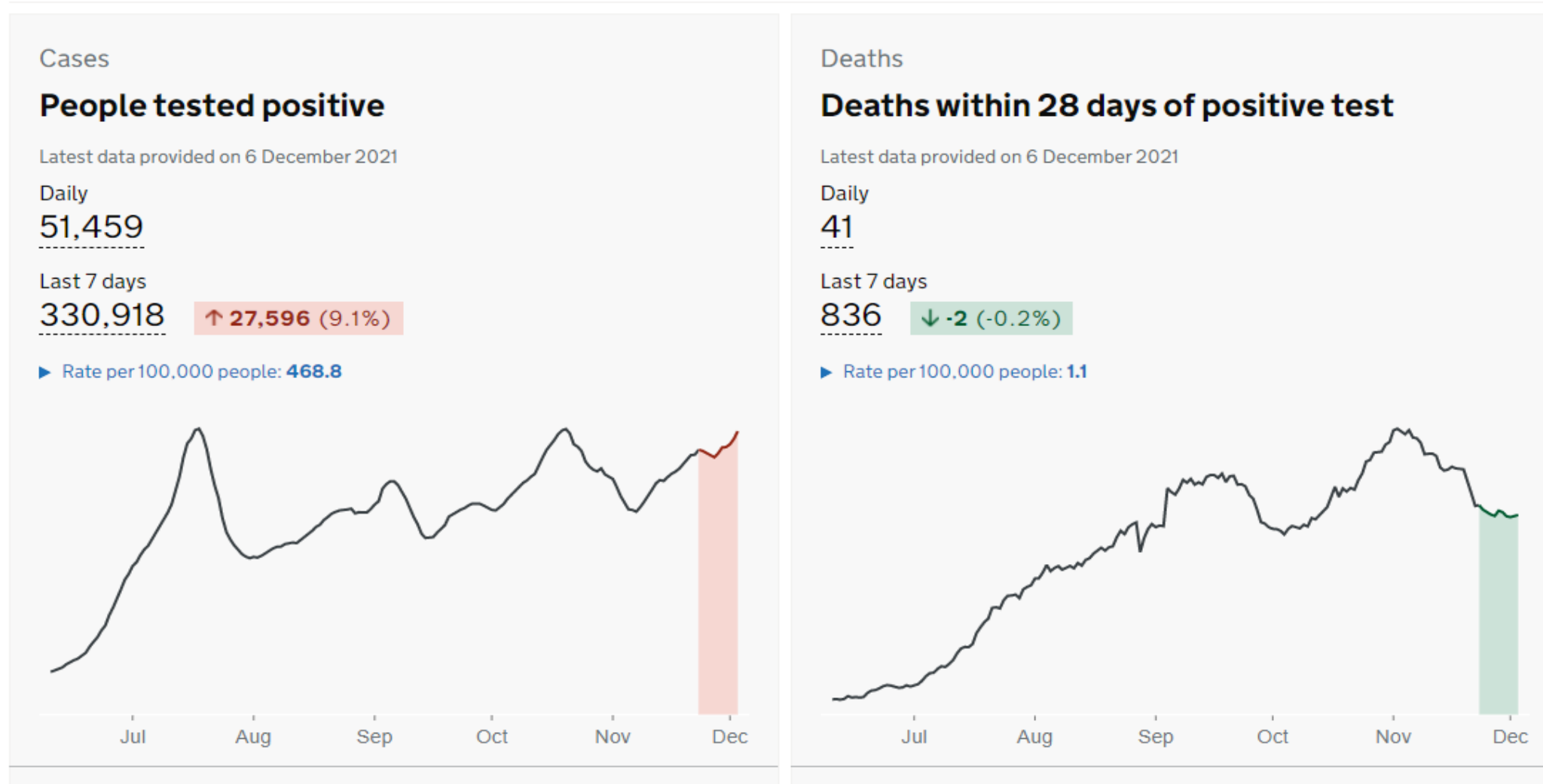


Rates of positive tests across BSW



Source GOV.UK Coronavirus (COVID-19) in the UK

UK Picture of infection rates



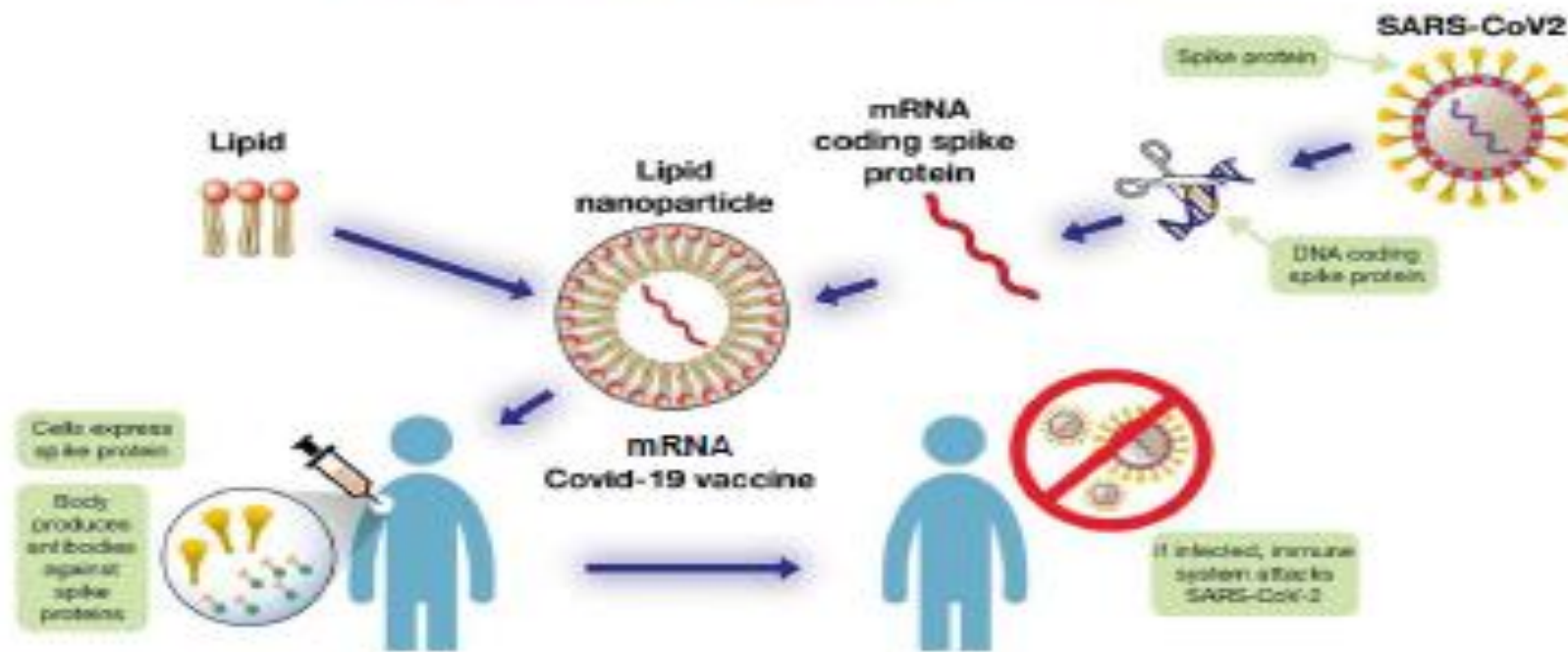
Source -GOV.UK Coronavirus (COVID-19) in the UK

Vaccination – The Science and Safety

Two types of Vaccine

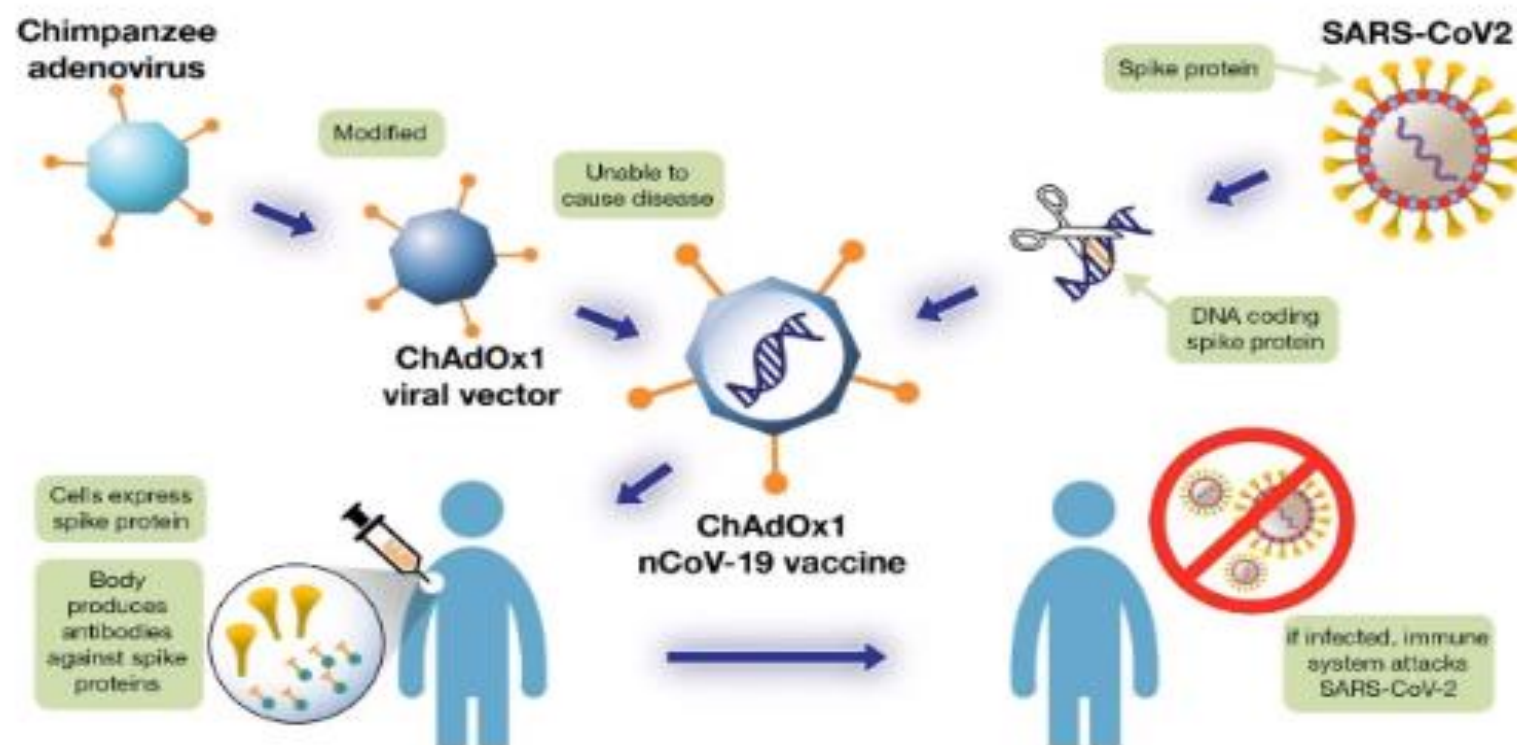


mRNA vaccines: Pfizer/BioNTech and Moderna



Adenovirus vector vaccines

AstraZenica



Vaccines against COVID

Do Vaccines Work? -UK Data

- Over 98% of adults have antibodies from either infection or vaccination.
- After 2 doses vaccine effectiveness against symptomatic disease with the delta variant 65 and 70% effective with AstraZenica Vaxzevria and 80 – 95% with Pfizer-BioNTech Comirnaty and Moderna Spikevax. Clear evidence that second dose boosts effectiveness.
- Higher levels of protections against severe disease, hospitalisation and death.
- Early data on booster Vaccination in adults aged 50 years and older indicates vaccine effectiveness boosted to 93-94% with around 24 million infections and 90,000 deaths prevented.

Source – UK Health Security Agency – COVID- 19 vaccine surveillance report
Week 46

Typical Side Effects of the COVID-19 vaccine are:

- Tiredness and headache
- Raised temperature
- Chills
- Pain or swelling at the injection site

In most cases these side effects are normal and only last a short time.



Safety of Vaccination in pregnancy

Safety in pregnancy - surveillance

- Pregnancy outcomes:

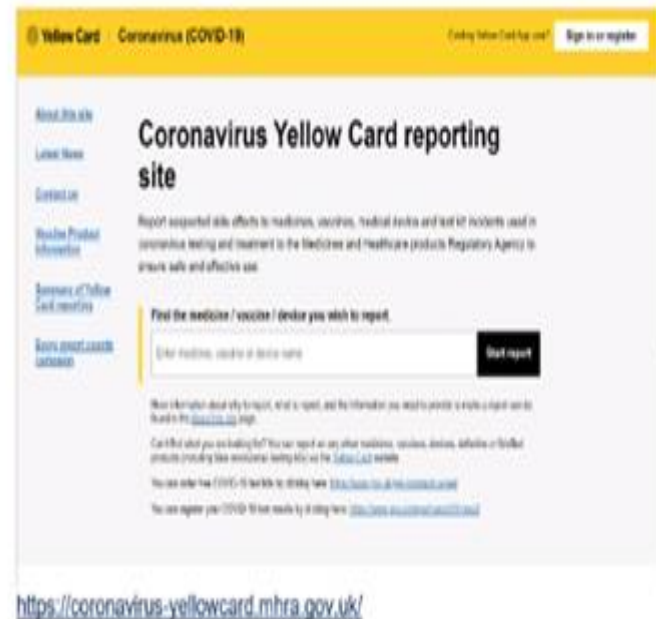
- miscarriage
- Stillbirths
- Preterm births

- Neonatal outcomes

- Birth defects

- Pregnancy complications

- Yellow card reports monitored for pregnancy outcomes as they are received



- Up to 31 October 2021 84,674 women in England reported as pregnant (or possibly pregnant received at least one dose of COVID-19 vaccination with 80,728 having had second dose (likely to be more than this as this was self reported on survey).
- MHRA – Medicines and Healthcare products Regulatory Agency collect evidence and reports via Yellow Card system of any suspected reactions to vaccines from women who were pregnant or later discovered they were pregnant when they were vaccinated.

Safety Information- Yellow card reports- pregnancy

- Pregnancy women have reported similar suspected reactions to the vaccines as non pregnant people
- No pattern for increased risk of adverse pregnancy outcomes on current evidence
- Most reports of adverse pregnancy outcomes have alternative explanations due to pre-existing obstetric complications or lack biological plausibility

Miscarriage and Fertility

- Data from reporting on accidental pregnancies in trials for COVID-19 vaccines in UK showed that miscarriage rate is no different to rate in general population
- Yellow Card reports show no pattern to suggest increased risk of miscarriage from COVID-19 vaccines or side effects of vaccines
- Some women had reported menstrual disturbance – clinicians feel this is not linked to vaccine – will look to see if any longer term pattern.
- No known longer term consequences on fertility
- Sperm quality is not affected by Vaccination

Safety summary

- COVID – 19 Vaccines cannot replicate and cannot infect pregnant person or their baby with COVID-19
- COVID-19 Vaccines do not cross the placenta
- COVID-19 vaccines are not found in breast milk
- Maternal antibodies to COVID do cross the placenta (protecting baby)
- Maternal antibodies to COVID are found in breast milk (protecting baby)

Which Vaccine in pregnancy?

- Since April 2021 all pregnant women are strongly recommended by Government, RCOG and RCM
- Vaccine offered at same time as rest of population based on age and clinical risk
- More than 275,000 women in UK and USA have had COVID-19 vaccine with no concerning safety signals.
- Can have vaccine at any time in pregnancy or after birth, when breastfeeding or when planning a pregnancy. Have as soon as possible for maximum protection
- Preference is for Pfizer-BioNTech and Moderna vaccines

Vaccination Guidance

- If first dose was AstraZeneca vaccine and no serious side effects can continue to receive a second dose.
- Booster vaccinations offered to all adults from 3 months after their second dose to help protect public against the Omicron variant.
- Flu Vaccination also recommended in pregnancy. Can be given at same time as COVID- 19 vaccine.
- Double vaccinated women eligible for booster will be called forward by age.
- Walk in appointments are limited but anyone can book an appointment through the National Booking Service. (google National Booking Service).
- If you have any problems accessing appointments ask your midwife, Obstetrician, GP or another health professional

Protective Measures

Wear a face mask in shops, outlets providing personal care, pharmacies, banks etc. and on public transport



Frequent Hand Hygiene and social distancing and wear a mask in crowded areas



References

- COVID-19 vaccination: a guide on pregnancy and breastfeeding - GOV.UK (www.gov.uk)
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- Coronavirus (COVID-19) Infection in Pregnancy, RCOG and RCM Version 14.2- Mon 6th December (<https://rcog.org.uk>)
- UK Health Security Agency – COVID- 19 vaccine surveillance report Week 46
- GOV.UK Coronavirus (COVID-19) in the UK

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 - UKOSS and UKEPSS reporting midwives and doctors
 - NIHR Clinical Research Networks
 - UKOSS Steering Committee
 - UKEPSS leads at the University of Birmingham
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References

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Any Questions?

SLIDO – Final question

Q2. How do you feel about COVID-19 vaccination in pregnancy?

