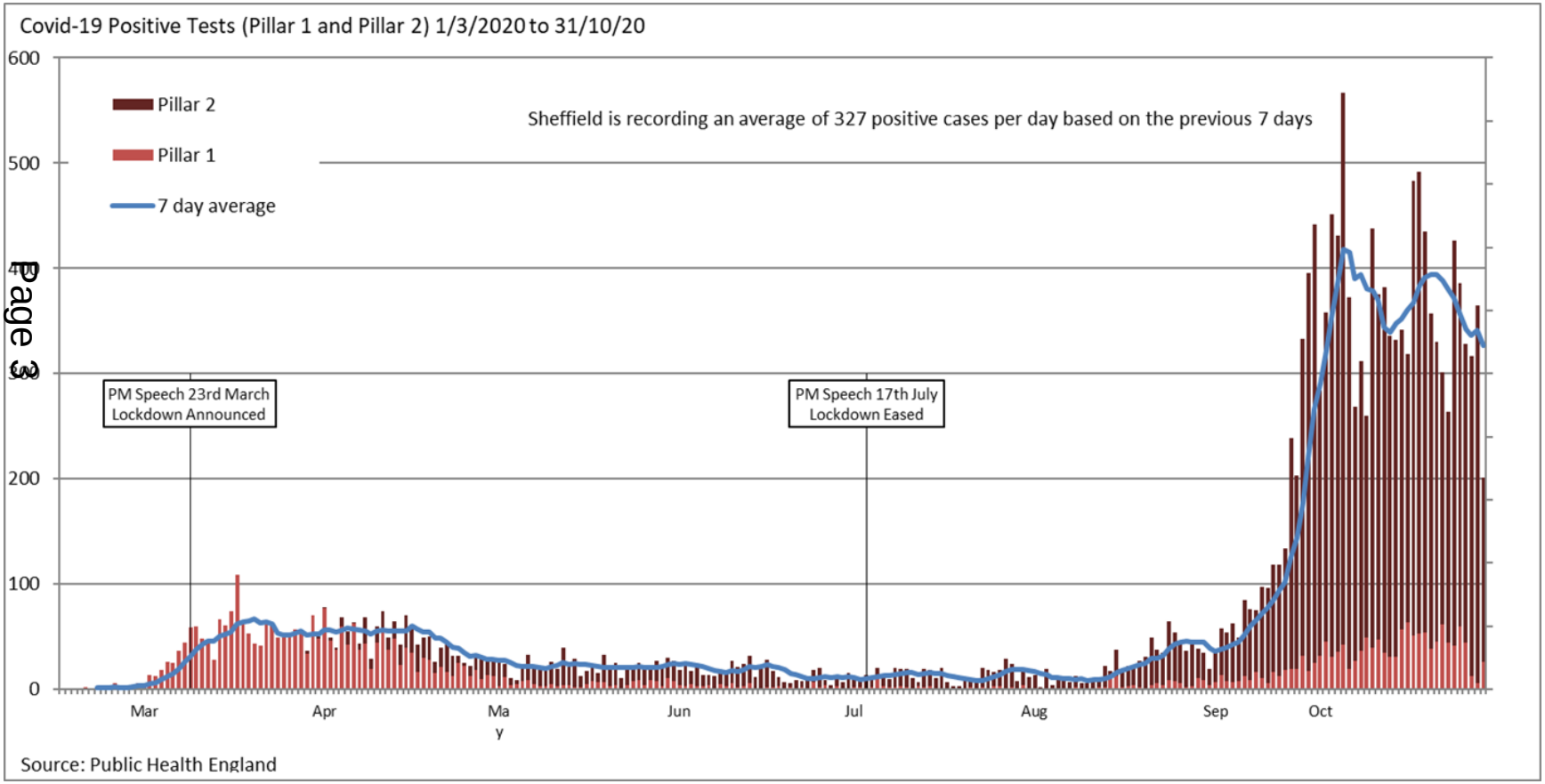
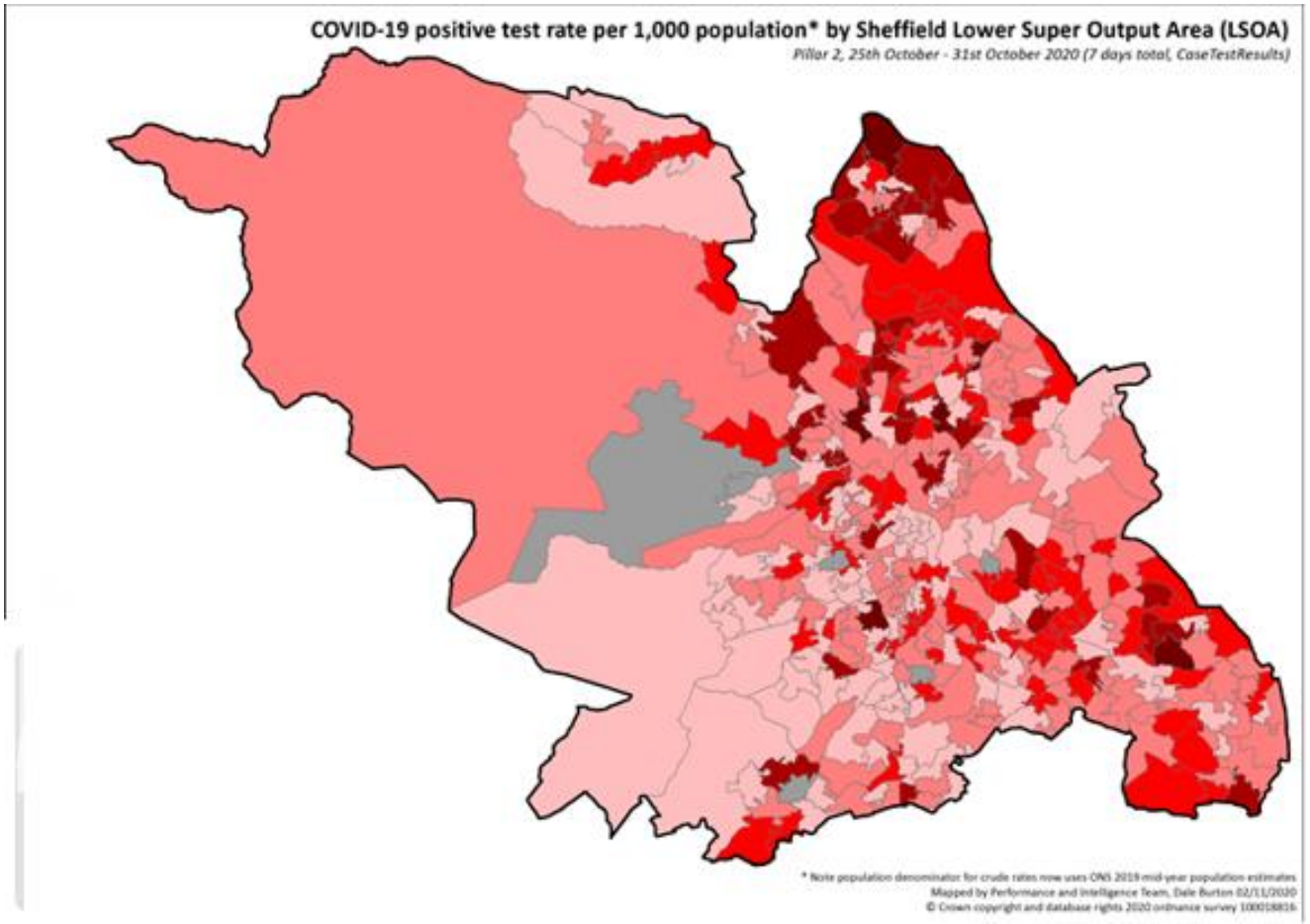
Situation report.
4/11/20
Greg Fell

1 epidemiology

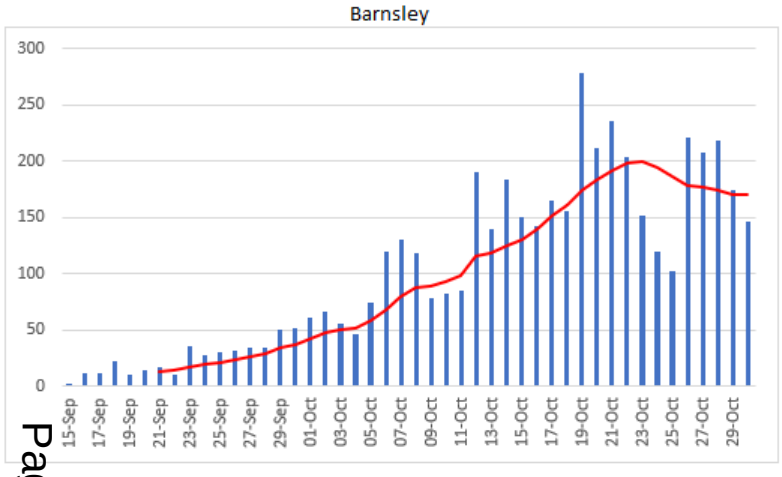
Epidemiology in one slide
HIGH & fluctuating rate. 15% positivity.

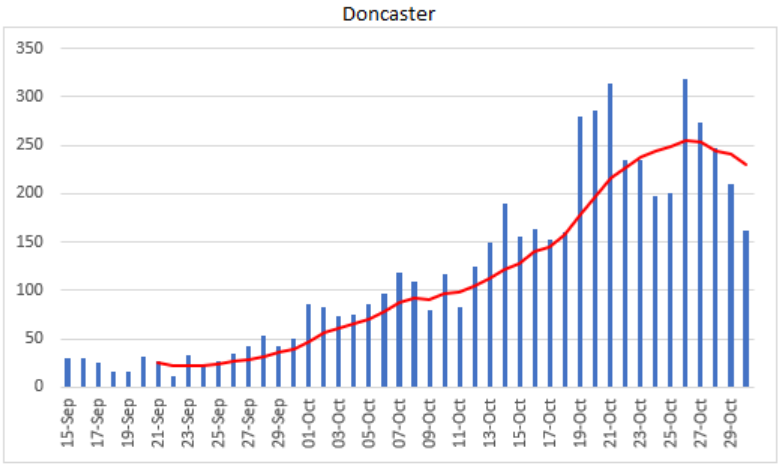


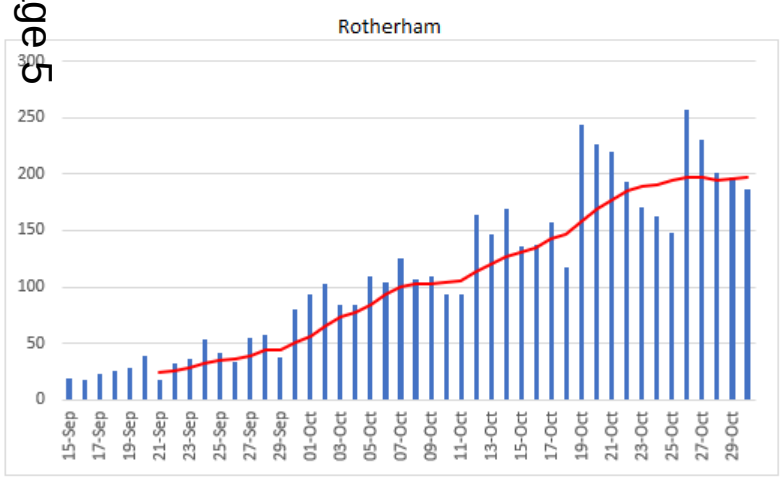
Still principally household transmission
Across the city.
E of Sheffield becoming a concern (same pattern as we saw before)

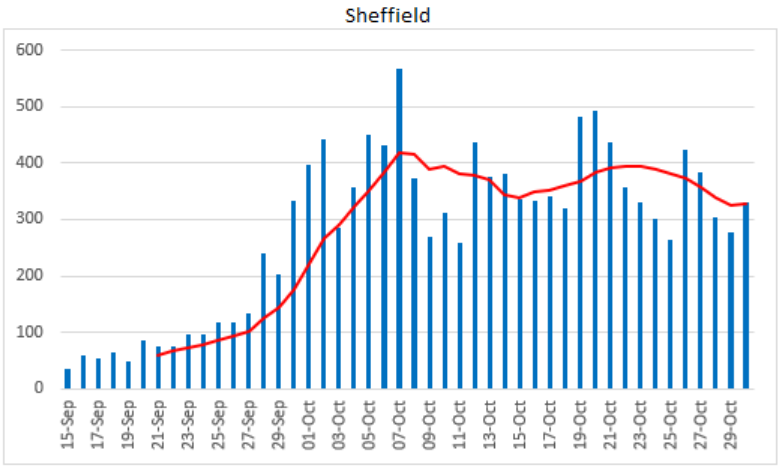


Trends – daily cases







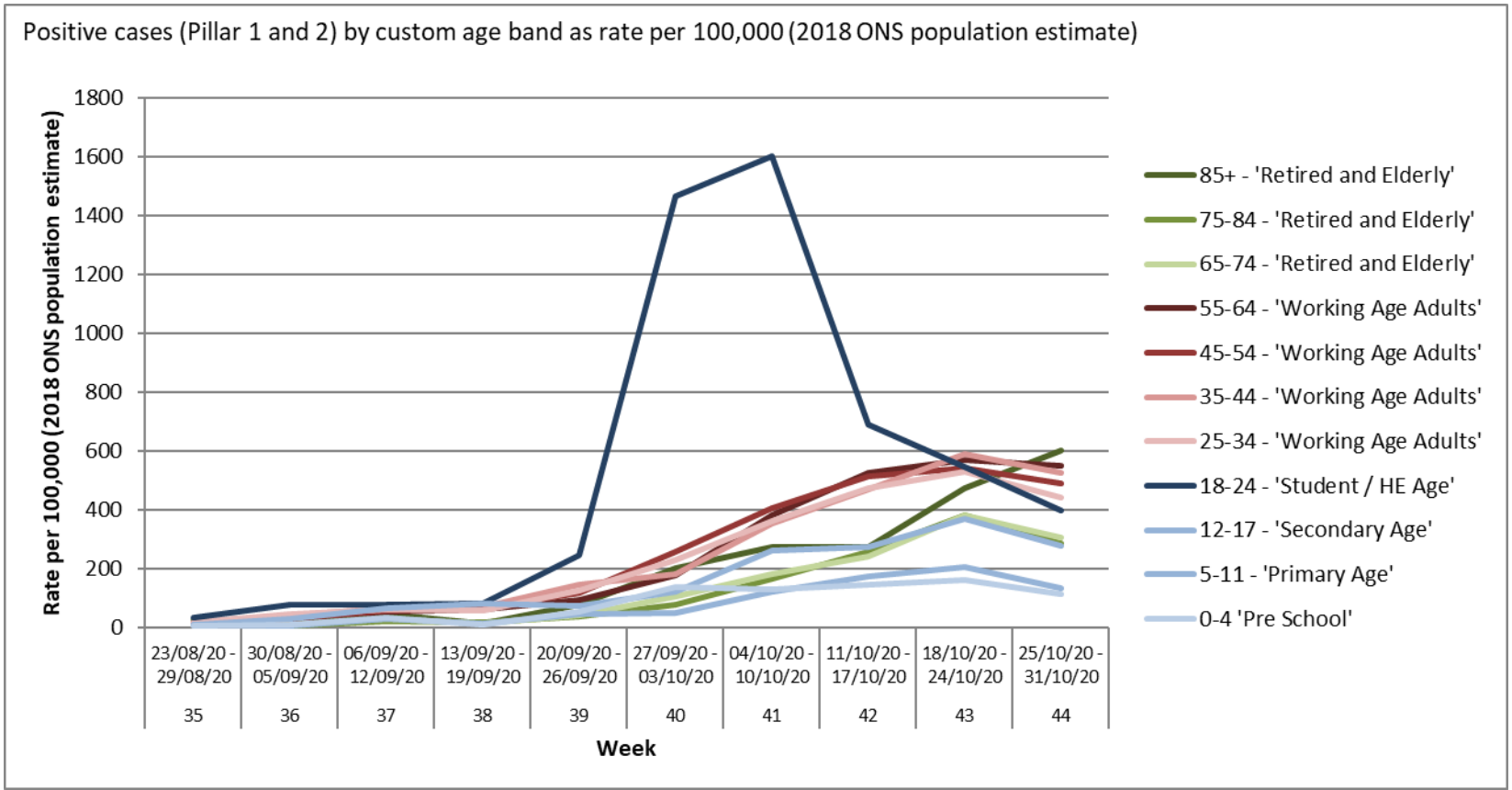


Age specific rates increasing across the board.

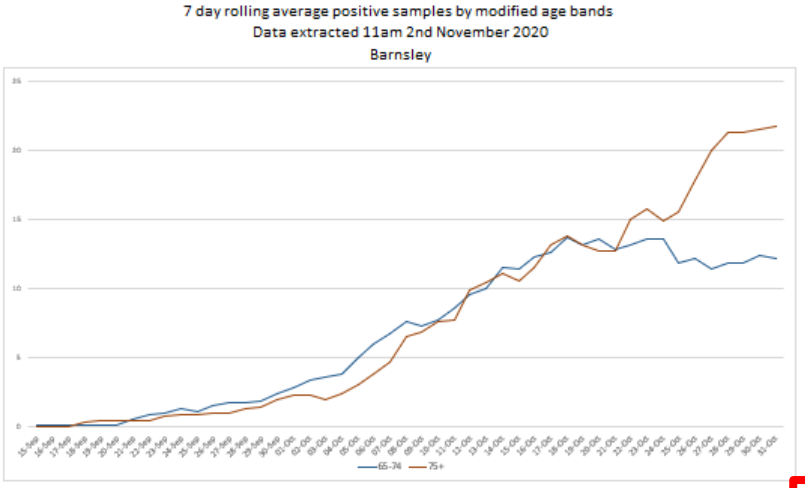
Average age of a case is increasing steadily

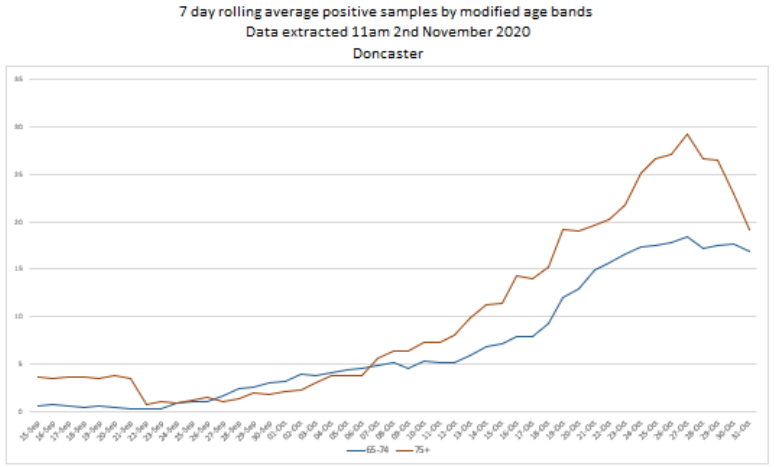
Taking out 18-24 we are like S Yorks

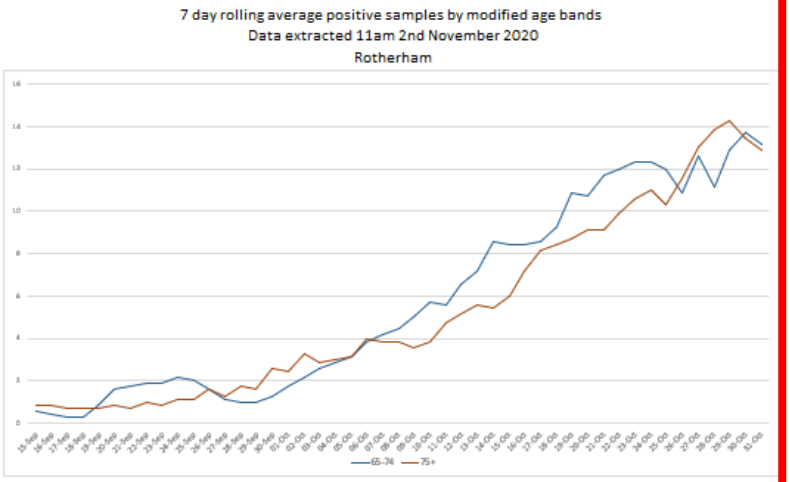
The rate of increase is decelerating

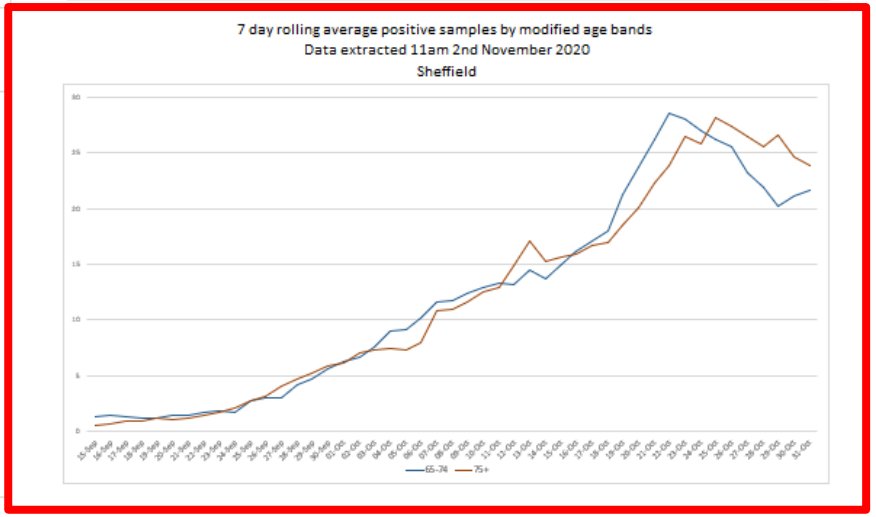


Some *signs* of flattening in elderly
But at too high a rate

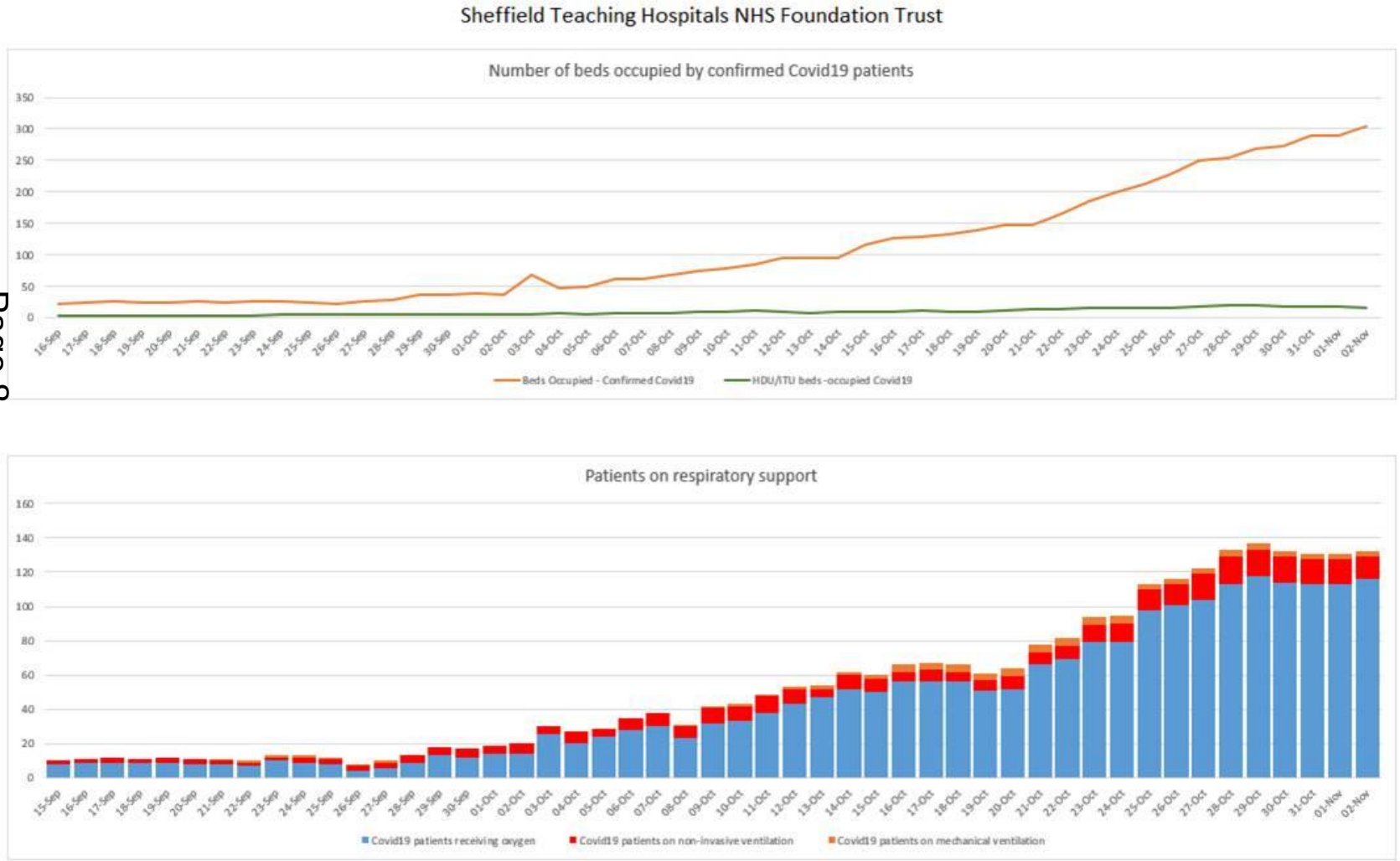








Hospital activity continues to rise
The interpretation of this is nuanced.

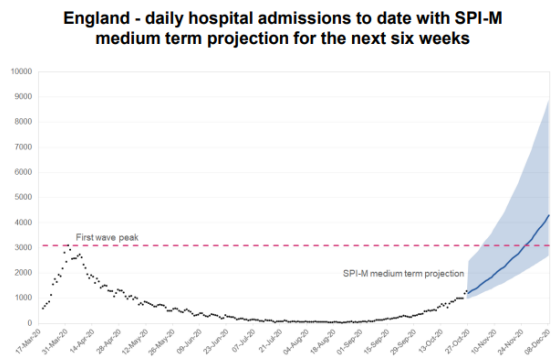


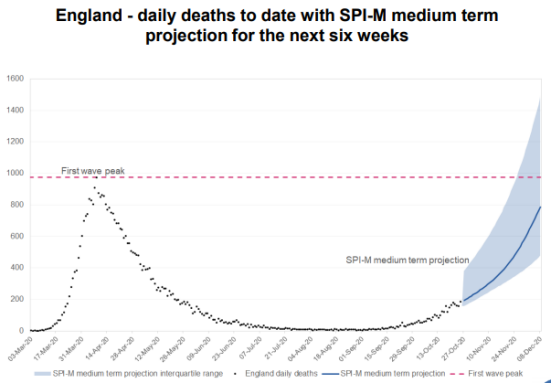
Unvalidated live sitrep data

2 Back to lockdown – Tier 4 restrictions

Why?

- Projected to breach the number of infections & hospital admissions in the Reasonable Worst Case planning scenario (SAGE 17 Sept)





Source	Date/Period to which estimate applies	Central estimate for daily number of SARS-CoV-2 infections in England	95% uncertainty
SPI-M-O Consensus on 7 October 2020: estimate from 5 SPI-M-O models	On/about 7 October	*Imputed central estimate* *42,000*	27,000 to 57,000
ONS Infection Survey	10th to 16th October *(mid: 13th October)*	35,200	28,000 to 46,600
SPI-M-O Consensus on 14 October 2020: estimate from 5 SPI-M-O models	On/about 14 October	*Imputed central estimate* *59,000*	43,000 to 76,000
REACT-1 interim round 6	16th to 25th October *(mid: 20th to 21st October)*	96,000	86,000 to 105,000
ONS Infection Survey	17th to 23rd October *(mid: 20th October)*	51,900	38,500 to 79,200

Why (2)

No single thing …..

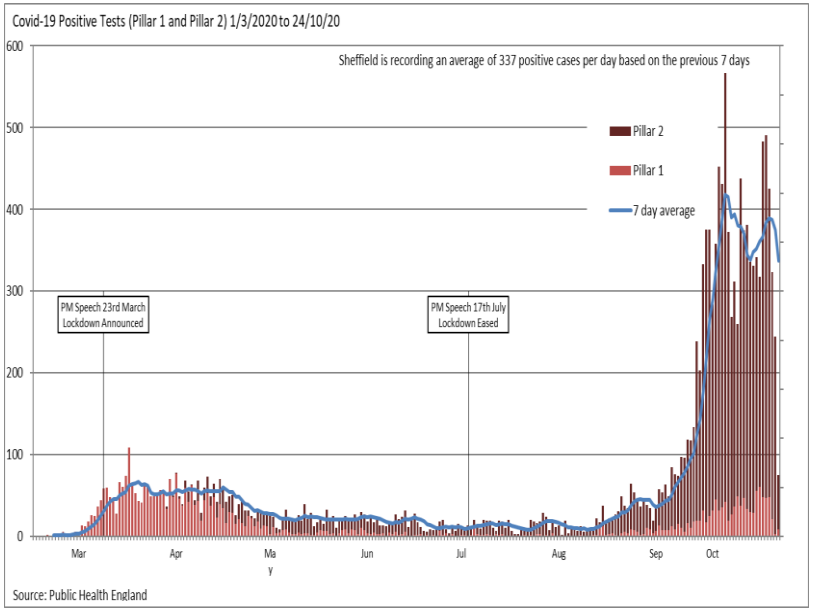
- Lockdown relaxation and subsequent inconsistent messages. Led to more mixing of individuals.
- Lack of single coherent message re “health” v “economy” (false trade off?).
- a high proportion of the population that remains susceptible
- We didn’t adapt behaviour or systems
- Become desensitised or tired of the messaging.
- a failure to balance the restrictions on mixing with the level of community infection
- More time indoors (winter is coming)?

Purpose

- Get R0<1
- Get level of infection back to mid may levels
- R0 driven by out of household contacts and lockdown will make a difference to this
- Reduce mean number of contacts per case
- May reset expectations and behaviour?
- Some caveats – when people get fed up!
- Doesn’t change the fundamentals

How long ….4 weeks?

- The measures currently in place have slowed spread (4d in March, 17d now)
- 4 weeks will not, in and of itself, eradicate the virus.
- Not long enough?? - See the curve shift from lockdown in March.
- This lockdown is less restrictive (education and many forms of employment)



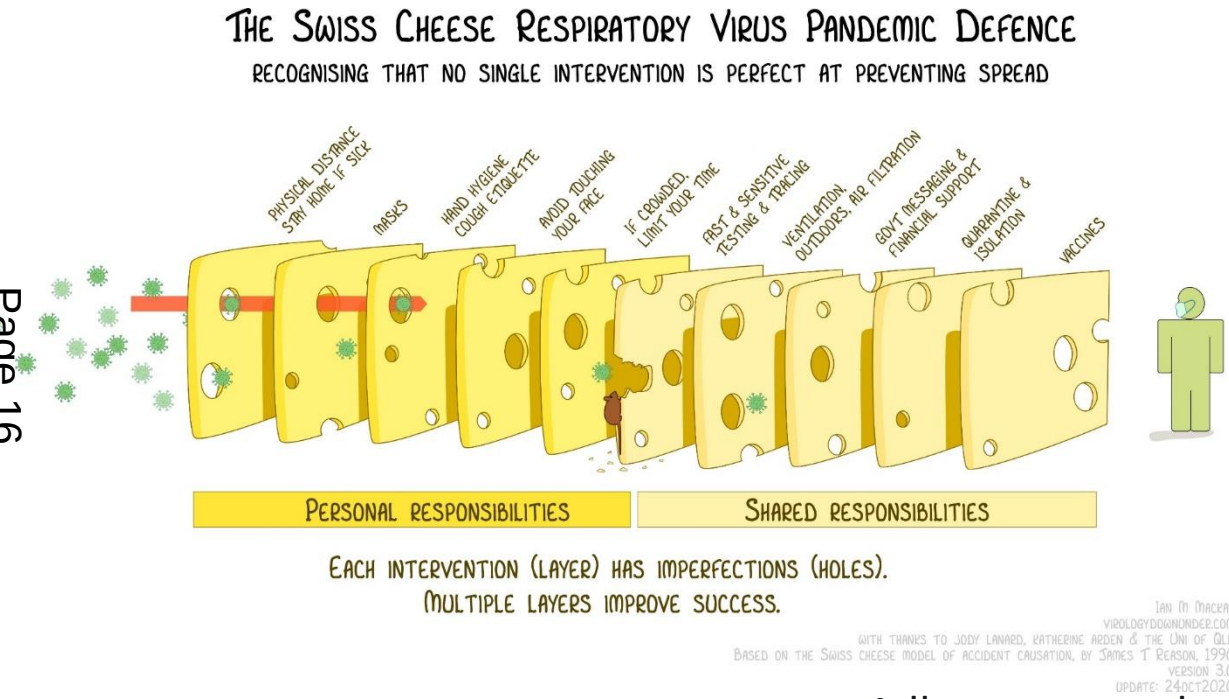
The route out.
All options are bad

- Exit strategy remains unclear. WE have done some work on this.
- Vaccination will take a year to get us fully vaccinated.
- Treatments have improved +++
- We remain reliant on public health interventions – adaption to virus (way of living and operating), behaviour or individuals, supporting that behaviour, test / trace / isolate.
- Lockdown simply buys time and gets R0 <1.
- 4 weeks to
  - Improve contact tracing and isolation. Inc reverse CT
  - Adapt physical and social environment – ventilation, spacing, remote working
  - Relook at clear and consistent messaging. Trust and confidence is key.
- Mental health impact (we know who was most impacted)

What makes most difference

- **Prevention –** messaging, comms, approach to events and gatherings, enforcement (hard and soft)
- **Managing individual incidents** across multiple settings
- **minimising testing delay** - had the largest impact on reducing onward transmissions. Making testing as accessible as possible.
- **consistent push on getting tested, even mild symptoms** - people need to understand why, and really believe it. How to get a test
- **Optimising testing & tracing coverage** – especially in some of our communities where we know we have rates of infection
- **Optimising isolation -** we know 80% of people recommended to self-isolate don't but changing these behaviours is essential to reducing transmission.
- **Minimising tracing delays** - speed, maybe by further enhanced CT – these latter three things have potential to prevent up to 80% of all transmissions
- **Focus on consistent messaging, simplifying communications, consent and consensus.**

A matrix of interventions
no single thing. Over a long time



Adherence needs to be high
Clear simple messaging
Operational effectiveness of test, trace, isolate
Extended use of face coverings
Some aspect of seasonality (NB see SE asia, Aus / NZ)

What more can we do

- Formally rethink the detail of the plan? Intensify interventions?
- TTI improvements? Too slow, not enough coverage
- Testing fatigue???
  - New testing technologies with 1hr result.
  - Beliefs - Wales: 80% of people believe you get this from strangers, only 30% intend to get a test if they have symptoms
- Intervention fatigue? People will get fed up!
- More we can do on risk reduction in big settings? Schools / Uni / CH / Workplaces?
- Numbers AND stories

But ……the fundamentals remain the fundamentals

My view is that further measures to control spread are necessary.
The best way to protect vulnerable individuals and the economy is to keep community spread low
Purpose of restriction is to limit social contacts
Suppression doesn't change the fundamentals

But it shouldn't detract from the basics

- Testing, contact tracing, isolation – speed and depth.
- Management of incidents
- The choices 560,000 people make (with caveat)
- Supporting people to do the right thing
- Get test if symptoms
- Stay at home if symptoms or positive test, or if asked to isolate.
- Limit social contacts – number and nature.
- Distance, hand wash, face covering

Summary points

- Rates settling. Much to high a rate
- R0 1.3 – 1.5 everywhere
- Admissions are rising, and death will follow
- Tier 4 will achieve the suppression of spread.
- What happens now can change future course
- Supporting individuals and businesses is critical in this
- The economy / health trade off is false
- We don’t have the wrong approach, but there is more we need to do to intensify
- The fundamentals remain just that
- We remain in this for a medium to long term

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