Almost everything is uncertain.

1. Deaths

2. Hospitalisations

3. Cases – where & who

With many thanks to Catherine Finnecy for help in collating and understanding the data.
Deaths
Number of new UK deaths from COVID-19 per week

These are registered deaths where COVID-19 was mentioned on the death certificate, regardless of location.

- **Northern Ireland**:
  - w/e 12 Mar: 762
  - w/e 17 Apr: 1,126

- **Scotland**:
  - w/e 16th Oct: 1,597

- **England and Wales**:
  - w/e 16th Oct: 762
  - w/e 23rd Oct: 1,126

Data from:
- England and Wales: www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredweeklyinenglandandwalesprovisional/latest
- Northern Ireland: www.nisra.gov.uk/publications/weekly-deaths
Number of deaths within 28 days of +ve COVID test reported per day in England

Data from https://coronavirus.data.gov.uk/
Hospitalisations
Number of new hospital admissions per million people – UK nations (daily 7 day average)

Wales includes admissions with **suspected** Covid – other nations just confirmed.

*Cannot be directly compared.*

Data from [https://coronavirus.data.gov.uk](https://coronavirus.data.gov.uk).
Number of new hospital admissions with COVID-19 per day in England

Data from https://coronavirus.data.gov.uk/
7-day average of daily number of new hospital admissions with COVID-19 per day / million people across different regions in England

Data from https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/
Number of people *in hospital* with COVID-19 per day in England

Although admissions are only half of peak, number of people in hospital is now two thirds of peak – because admissions have been building up for longer this time.

Data from [https://coronavirus.data.gov.uk/](https://coronavirus.data.gov.uk/)
Number of people *in hospital* with COVID-19 per day in England

Data from https://coronavirus.data.gov.uk/

Although admissions are only half of peak, people in hospital is now two thirds of peak – because admissions have been building up for longer this time.
Cases
Number of new UK confirmed COVID-19 cases by reported date (people who have had a positive test)

All of this spike is England →

New confirmed cases

7-day rolling average

Data from https://coronavirus.data.gov.uk
Number of new confirmed COVID-19 cases / 100,000 people – UK nations – “specimen date”

COVID-19 trends in UK nations
Rolling 7-day rate of positive tests per 100,000 population by specimen date, to 7th Nov

Thank you to Carl Baker for the chart! @carlbaker
Number of new confirmed COVID-19 cases / 100,000 people – UK nations – “specimen date”

COVID-19 trends in UK nations

Rolling 7-day rate of positive tests per 100,000 population by specimen date, to 7th Nov

Scotland stronger restrictions in central belt

Scotland 5 tier system

Data: gov.uk dashboard
Chart: @carlbaker

Thank you to Carl Baker for the chart! @carlbaker
Weekly positivity rate (proportion of people tested who were positive) - Scotland

Figure 12: Positivity rates in Scotland have increased over the last six weeks, it is too early to say whether rates are levelling off.

Estimated percentage of the population in Scotland testing positive for the coronavirus (COVID-19) on nose and throat swabs since 26 September 2020.

**Official reported estimates** of the rate of COVID-19 infections in the community in Scotland.

**Modeled estimates** are used to calculate the official reported estimate. The model smooths the series to understand the trend and is revised each week to incorporate new test results.

Source: Office for National Statistics - Coronavirus (COVID-19) Infection Survey

Scotland stronger restrictions in central belt

Scotland 5 tier system
Fife, Perth & Kinross and Angus move into level 3 restrictions

Complicated tale of restrictions - Scotland
Number of new confirmed COVID-19 cases / 100,000 people – UK nations – “specimen date”

**COVID-19 trends in UK nations**

Rolling 7-day rate of positive tests per 100,000 population by specimen date, to 7th Nov

- **NI circuit-breaker**
- **Schools return, rest of lockdown stays**

- **England**
- **Wales**
- **Northern Ireland**
- **Scotland**

Thank you to Carl Baker for the chart! @carlbaker
Weekly positivity rate (proportion of people tested who were positive) - NI

Figure 10: Positivity rates in Northern Ireland had increased in recent weeks but now appear to have levelled off.

Estimated percentage of the population in Northern Ireland testing positive for the coronavirus (COVID-19) on nose and throat swabs since 26 September 2020.

Official reported estimates of the rate of COVID-19 infections in the community in Northern Ireland.

Modelled estimates are used to calculate the official reported estimate. The model smooths the series to understand the trend and is revised each week to incorporate new test results.

Source: Office for National Statistics - Coronavirus (COVID-19) Infection Survey

- NI circuit-breaker
- Schools return, rest of lockdown stays
Weekly positivity rate (proportion of people tested who were positive) - NI

Ireland Levels 3 & 4

NI circuit-breaker

Ireland Level 5

Schools return, rest of lockdown stays
Number of new confirmed COVID-19 cases / 100,000 people – UK nations – “specimen date”

Thank you to Carl Baker for the chart! @carlbaker
Weekly positivity rate (proportion of people tested who were positive) - Wales

**Figure 8: Positivity rates in Wales have increased in recent weeks**

Estimated percentage of the population in Wales testing positive for the coronavirus (COVID-19) on nose and throat swabs since 26 September 2020.

- **Official reported estimates** of the rate of COVID-19 infections in the community in Wales.
- **Modelled estimates** are used to calculate the official reported estimate. The model smooths the series to understand the trend and is revised each week to incorporate new test results.

*Source: Office for National Statistics – Coronavirus (COVID-19) Infection Survey*
Number of new confirmed COVID-19 cases / 100,000 people – UK nations – “specimen date”

COVID-19 trends in UK nations
Rolling 7-day rate of positive tests per 100,000 population by specimen date, to 7th Nov

Data: gov.uk dashboard
Chart: @carlbaker

Thank you to Carl Baker for the chart! @carlbaker
Weekly positivity rate (proportion of people tested who were positive) - England

Source: Office for National Statistics – Coronavirus (COVID-19) Infection Survey
Weekly number of new confirmed COVID-19 cases / 100,000 people – England regions (specimen date)

Figure 4: The highest infection rates continue to be seen in the North West and Yorkshire and The Humber where rates are now much closer together.

Estimated percentage of the population testing positive for the coronavirus (COVID-19) on nose and throat swabs across regions, England, 3 November 2020 (reference point of the most recent week from modelling).

England recorded 30,843 cases yesterday. Most of these were tests taken on Monday (9\textsuperscript{th}) and Tuesday (10\textsuperscript{th}). Infections probably from last Tuesday (3\textsuperscript{rd}) or Wednesday (4\textsuperscript{th}). Pre-lockdown socialising? Schools returning from half term?
Age of people testing positive (specimen date)

COVID-19 trends by age group in England
Rolling 7-day rate of positive tests per 100,000 population in each age group, by specimen date, to 7 Nov

Data: Public Health England
Chart: @carlbaker

Thank you to Carl Baker for the chart! @carlbaker
Cases in care homes are rising – data to 8 November

Figure 16: Number of acute respiratory infection (ARI) incidents in care homes by virus type from week 27, England

Inequalities – Imperial REACT study

From https://spiral.imperial.ac.uk/bitstream/10044/1/83912/2/REACT-1_Full-text.pdf
Summary

Certainly cases numbers are slowing down, but trajectories are unclear.

Hospitalisations going up again in England, deaths going up everywhere

Restrictions at Tier 3 equivalent or greater do seem to have an effect – but not consistent.

We know there was a recent spike in cases in England – pre lockdown socialising?

Next two weeks crucial in determining direction of travel – and plans for coming out of restrictions.

Covid is once again impacting on the most vulnerable communities
Disparities in, and predictors of, COVID-19 risk

KEY:
- Green: Evidence known
- Yellow: Limited evidence
- Blue: Indirect evidence
- Red: Not known/no evidence

GENDER
- Men are nearly twice as likely to die from COVID-19 than women.

HOUSING
- Living in overcrowded and multigenerational housing may increase risk of virus transmission.

OCCUPATION
- Key workers and health and social care staff may be at increased risk of infection due to occupational exposure to the virus.

ETHNICITY
- BAME populations are more likely to die from COVID-19 than white ethnic groups. South Asian and Black groups are at 1.2 to 2 times increased risk compared to white.

COMORBIDITIES
- People with comorbidities are at increased risk.

GENETICS
- Some genetic variations may be associated with infection susceptibility and diverse clinical presentation of COVID-19.

LIFESTYLE
- Smoking, alcohol intake, diet, and physical activity contribute to comorbidities.

DEPRIVATION
- People who live in deprived areas have higher diagnosis rates and death rates than those living in less deprived areas. Mortality rates in the most deprived areas are around double the least deprived areas.

AGE
- Diagnosis and mortality increases with age. People aged 70-79 are around 2.5 times more likely to die from COVID-19 than 60-69 year olds.

OBESITY
- People with a BMI over 40 are at more than double the risk of death from COVID-19 than those who are not obese (BMI less than 30).

STRUCTURAL DISCRIMINATION
- Structural discrimination may impact on health seeking behaviours and ability to challenge work conditions.

BEHAVIOUR
- Social distancing, shielding, wearing of facemasks etc. can reduce transmission risk.

ENVIRONMENTAL POLLUTION
- Air pollution is associated with respiratory diseases and may play a role in viral transmission.