

that the routine testing of patients leaving hospital will help address this, although there may be a continued risk of infection from false negatives returning to homes.

- The Second Generation Surveillance System (SGSS) data on positive and negative swab results shows that within care home transmission is highly likely, though many of these outbreaks are censored so final outbreak size hard to quantify. Initial limits to testing access is likely to mean that the number of positive tests is a major underestimate of cases to date. Evidence suggests that in some instances, outbreaks slowly percolate across homes. In other cases outbreaks are more explosive.

DATA GAPS:

- Further modelling could help quantify secondary attack rates and estimate final attack rates. (Annex 1 & 2). The reproduction number in homes is a function of number of contacts and probability of transmission given contact. As contact rates are highly variable and dependent on care needs/role of staff in care home, we would expect the reproduction rate to also be heterogeneous.
- Better linkage between hospital discharge notes and care home readmission would help to assess more accurately the connectedness/transmission from hospital and care home setting and visa verse. The WG will explore options moving forward.

Response to Q2: What are current and projected trends in transmission in Care Homes? Do recent declines in cases suggest that the situation is under control?

We can say with strong confidence that:

- the number of all cause deaths reported to CQC has dropped from a peak in mid-April. These declines have been seen in both nursing and care homes (see Figure 2). All cause deaths in domiciliary care reported to CQC have plateaued over this period (though only about 10% of all care home deaths).
- There is no evidence of confirmed COVID19 deaths decreasing. All COVID flagged deaths dropped in late April, but this is driven by a drop in suspected cases. Furthermore, the drop in COVID19 flagged deaths in recent days may be a surveillance effect.
- The number of new outbreaks reported to PHE has dropped from around 150 per day to 100 per day in England, with some regional differences.
- The SGSS data shows that outbreaks are likely to be ongoing, with gaps in the time between the positive swabbing results being due to ongoing transmission, false negative results, or the new introduction of disease to care home (Figure 5).
- The decline in outbreaks reported and newly notified deaths is a positive sign. However, given asymptomatic infection and relatively recent increases in testing capacity, numbers are highly variable. We can say with moderate confidence that it is highly probable that we will see both new and ongoing outbreaks moving forward.

Response to Q3: What approach to swabbing and testing is likely to be most effective in reducing rates of infection? Is there evidence to support:

- *Testing all residents, irrespective of whether symptomatic or not?*
- *Testing all staff working in homes (e.g., care workers, cooks, receptionists)?*