**Briefing prepared by the Analytical Collaboration for COVID-19: 12th May 2020**

**Briefing Summary: International comparisons of COVID-19 death data**

**Introduction**

The Analytical collaboration for COVID-19, a collaboration across five organisations: The Health Foundation; King's Fund; Nuffield Trust; and two specialist NHS analytical teams, Imperial College Health Partners, and the Strategy Unit. They have been supporting ad hoc immediate questions raised by national bodies in relation to the impact of COVID-19.

This is a summary of a briefing that was produced by a team at the Health Foundation on the 12th May 2020. The briefing was produced rapidly in an environment where data and evidence was continually changing and should be seen in that context. The briefing was intended to shed light on the issue in question but does not constitute advice.

**Summary**

Question*: How does the death data for COVID-19 compare internationally?*

Two measures are commonly looked at to understand the mortality from a disease. Deaths per 100k population, and deaths per case (the case fatality ratio, or CFR).

At the time of writing the UK had deaths per capita of 22.7 per 100k. This was lower than Italy (38.4), Spain (42.8) and France (29.6), but nearly five times as high as Germany (5.1). The CFR for the UK was 13.3%. This compares to Italy (13.2%), Germany (2.2%), Wuhan (5.1%) and China excluding Wuhan (1%).

A third measure looks at the number of deaths per test conducted. The UK had a high number of deaths per 100k tests at 41.6, roughly the same as France. In comparison, Italy had 17.7 deaths per 100k tests and Germany 2.5. Possible reasons for differences include (a) the testing regime (in the UK testing was focused on those with symptoms presenting in hospitals); (b) the quality of care provided to patients with COVID (eg the extent to which there is sufficient ICU capacity); and (c) the segment of the population being infected (e.g. young/old)

Each of these measures has limitations but triangulating them can help us to understand who is performing well and less well. Useful next steps would be to a) include data on disease prevalence and b) where possible, try to control for case mix.