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Subject: RE: Red Dawn Breaking, COVID-19 Collaborative, Feb 16 start

Keeping track of the outbreak aboard the cruise ship. The latest update is the announcement of 2 deaths (both patients in their 80s). An 87-year-old man and an 84-year-old woman, died on the 20th. Both were Japanese (the 87-year-old man was hospitalized on Feb-11 and the 84-year-old women on Feb-12). So time to death from recognition of infection was 8-9 days. On Feb-12, the total number of confirmed cases was 203. So estimated CFR back dating the denominator to Feb-12 is 1%. Assuming a denominator of 621, the CFR is 0.3%. if deaths are lagging by 8-10 days (and confirmed cases plateau), we should have a pretty good estimate of CFR for he entire group in another week or so. Will need to peel off the number of cases involving the crew member to get a better estimate of CFR in the elderly. These numbers are within the range we have been estimating.

The 2,666 passengers are similar in age (and likely in co-morbidities) to the population we see in a nursing home or residential care facility. The 1,045 crew are a proxy for a young healthy population. It will be important to look at the outcomes separately. One of the concerns is how a 'remake of this movie' could play out in similarly confined populations of elderly frail Americans. Here are the numbers of long term care facilities/programs in the US that care for the frail elderly. A large number of locations and a large number of residents/participants. I know that healthcare leaders were engaged yesterday, is anyone engaging this sector (long term care)? The healthcare leaders seemed more concerned about critical supply shortages (akin to the IV fluid shortage). Listening to them, it felt like their concerns seemed almost divorced from the threat of COVID.