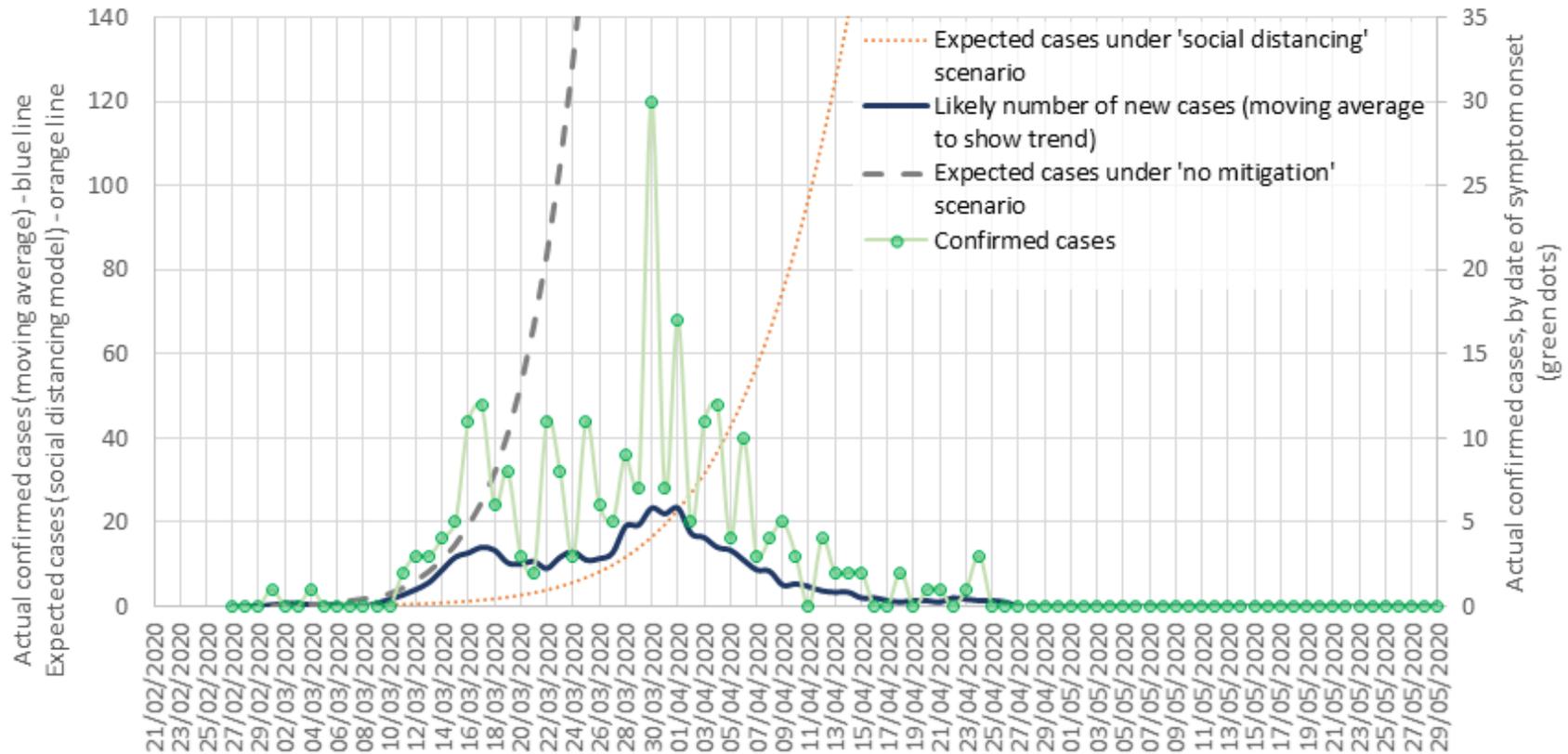


COVID-19 Modelling

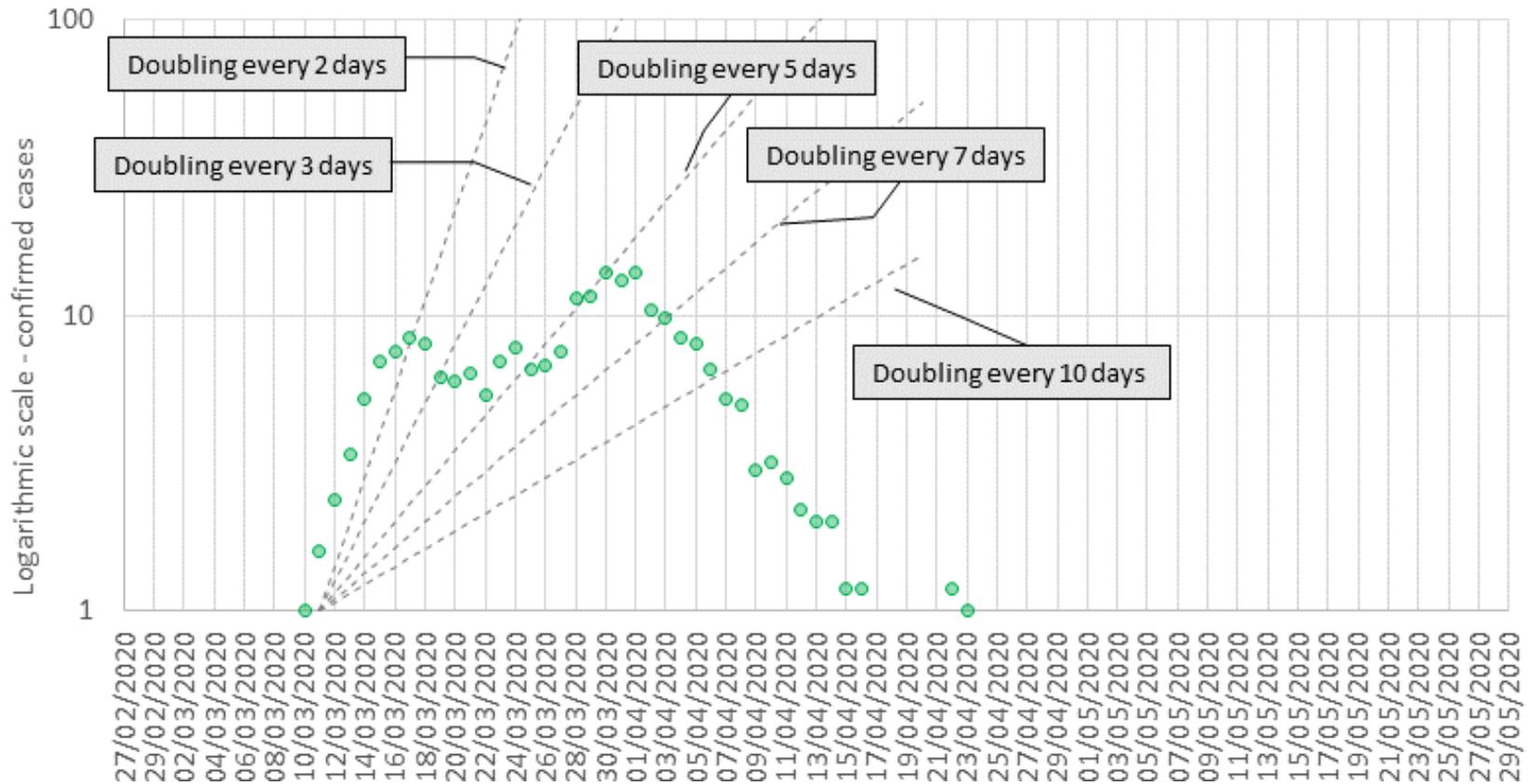
To monitor the trajectory of infections in the Bailiwick, Public Health Services monitor positive test results. Each positive test result is plotted against the day that symptoms began (or against testing date if no symptom-onset date is available).

We are assuming that for each positive test result, that there may be 1.67 actual cases of coronavirus on the Island. This assumption is based on research which suggests that around 40% of infected individuals may be asymptomatic. In other words we assume that we are detecting all symptomatic cases but missing another 40% who are asymptomatic; this represents the expected proportion of asymptomatic / mild cases that are not recognised as cases. This is then used to estimate the new number of new actual cases each day. Using this information the trajectory of the increase of coronavirus cases can be plotted for the Bailiwick. A 5-day moving average is used to adjust for random fluctuation in daily cases and make the curve smoother and easier to analyse.

What the graph below shows is that, even allowing for some undercounting, our cases numbers (blue line) have not risen exponentially as one would expect in a model mitigated by social distancing (orange line) alone. The grey dotted line shows what would have happened if there had been no mitigation. So, what this shows is that our case numbers are currently stable. We have so far succeeded in flattening the curves we might otherwise have seen had we not put our actions in place to prevent the on-going transmission of the virus in our community.



The graph below indicates trends on a logarithmic scale. On this scale, a straight diagonal upward line indicates exponential growth rate. Here the projected number of cases doubling in two, three and five days is illustrated with the grey dashed lines. This illustrates that the rate of spread in the Bailiwick is starting to decline.



For further information, please refer to www.gov.gg/coronavirus

or email publichealth@gov.gg