

OC LEADER BOARD

Opinion, Analysis, Insight

Can OC Begin Opening This Week?

Most of the world was caught unprepared by the severity of COVID-19, though retrospectively, there were collective signs of “we should have seen it coming,” and many did, but these warnings were more opinion than grounded in hard data that the world’s leadership could act on.

The number of recorded deaths due to COVID-19 around the world, excluding China, for each month from January to April were 0, 84, 33,878, and 189,086, respectively.

There is clearly a great need for predictive tools to provide real-time forecasts to more quickly implement mitigation efforts. We have been developing a model based primarily on the most reliable data available, as cold as it may sound, but—deaths.

From death rates and cumulative deaths and other measurable variables, we can compute the number of cases (prevalence) and new cases (incidence).

A useful outcome of these tools is the ability to forecast dates when it is safe to resume some level of work and social activity.

Social, economic, and political pressure will ensure that relaxing of restrictions will occur and probably prematurely. And given that reality, it is especially imperative that we implement a well-reasoned gradual phased approach with check-gates along the way to minimize

renewed outbreaks. A detailed look at recommendations is on my blog at syage-covid19-assessment.com.

OC Never in Woods

So how are we doing locally?

Table 1 shows that California on the whole is doing very well compared to hotbed states such as New York and New Jersey with a death count per million people of 51 vs. 1,222 and 814, respectively. Broken down by California counties we see that OC is only at 16 deaths per million. Are we out of the woods? Looks like we were never there!

There was never a flare-up of deaths indicative of an epidemic. Instead, we have had a scattering of cases and deaths. But we are still exposed as we border four more infected counties, which have significantly greater per capita death counts than OC. A particular threat is Los Angeles, which does show epidemic behavior, though not nearly as severe as in other parts of the country and world.

Still, we must be careful as we are a population that is fully exposed with no available vaccines for a while, and little immunity from previous infections.

When to Ease?

The big question is when we can ease social distancing and begin some semblance of normality. **Chart 1** is a plot of daily deaths in California and you can see it appears that we have reached a peak and are moving down the other side with deaths decreasing daily. However, we are only about one week past the peak (as of April 30) so the number of cases is still relatively high.

Our model says on average, California can start easing restrictions May 15 as that is the date when the number of active cases is forecasted to drop to 100 per million people, which we consider a safe level to gradually ease restrictions. I purposely excluded statistics on “confirmed” cases because it drastically understates the true number due to lack of testing.

If we assume that all counties are also about one week past their death rate peak, then based on per capita death statistics, and therefore case count, we could see OC easing as early as May 10, but L.A. extending to May 20ish. In fact, Gov. **Gavin Newsom** said he planned to begin relaxing restrictions on May 8. By comparison, we don’t see New York and New Jersey easing until early June even though they appear to be more than a week passed their peak death rates. But they are about 20 times higher in death and cases per capita than California.

The Threshold

So, does hospitalization rate give us additional data to refine an eas-



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Table 1

County (most populous)	Deaths	Population	Deaths/ million
Los Angeles	1,231	10,098,052	122
San Diego	138	3,302,833	42
Orange	52	3,164,182	16
Riverside	161	2,383,286	68
San Bernardino	97	2,135,413	45
Santa Clara	115	1,922,200	60
Elsewhere			
New York State	23,780	19,453,561	1222
New Jersey	7,228	8,882,190	814
California	2,029	39,512,233	51
United States	60,966	331,002,651	184
Spain	24,275	46,754,778	519
Italy	27,682	60,461,826	458
Sweden	2,462	10,099,265	244

Sources: LA Times COVID-19 Tracker, Cubit, as of April 30

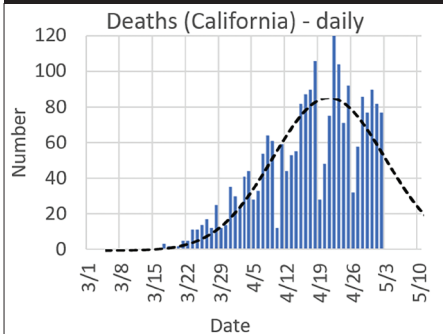
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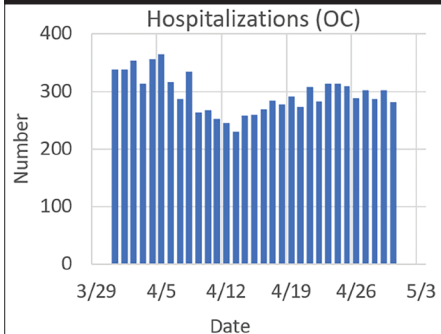
May 11-17, 2020

Chart 1



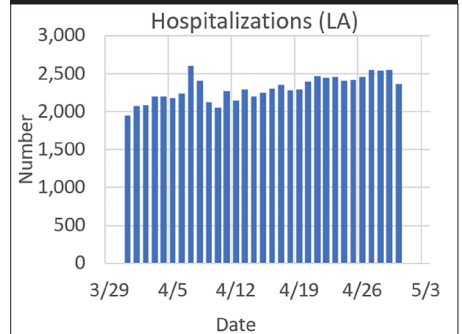
Sources: Calmatters, OC Health Care Agency

Chart 2



Sources: Calmatters, OC Health Care Agency

Chart 3



Sources: Calmatters, OC Health Care Agency

ing date? The **Charts 2 and 3** show the daily hospitalization counts over the past month for OC and L.A. for confirmed and suspected COVID-19 patients.

Our model predicts that prevalence (total active cases) peaks about 1-1½ weeks before the death peak. If we are correct about California, the death rate peaked about April 20 so that would place the prevalence peak around April 10.

We expect the daily hospitalization count to approximately track the prevalence count. There actually does appear to be a decrease in hospitalization counts for California and OC starting around April 10; however, the drop is not steep nor is it sustained. In fact, OC appears to be going through a rebound!

Looking at L.A., we see a rising hospitalization count and I suspect that the rebound in OC is due to the growing number of cases in L.A. leaking into OC through physical contact.

So, do the hospitalization statistics alter our forecasts above for safe dates for social easing? In terms of hospitalization per capita, California is at 119 per million and OC and L.A. are at 89 per million and 234 per million, respectively.

Earlier we set a threshold for social easing of 100 active cases

per million and yet we are not even at that number for hospitalizations so that gives me pause. If social distancing has been successful in OC and California we should be seeing a steep decline in the number of active cases and hospitalizations; however, the hospitalization count due to COVID-19 remains stubbornly flat. If the death rate continues to decline and we also start to see a decline in hospitalizations, say to half their current value, then I would not rule out the mid-May easing dates forecasted above.

So, this is not great news for resuming normalcy, but we are fortunate in California and especially OC by escaping the worst of the COVID-19 epidemic.

But an early misstep in easing restrictions could ignite a real outbreak. As they say, better to be safe than sorry.

Editor's Note: Jack A. Syage is CEO and co-founder of Newport Beach's ImmunogenX LLC, an early-stage drug developer working on clinical trials of celiac disease. Syage, who holds a Ph.D., has published over 130 papers, delivered about 100 invited talks and has over 30 U.S. patents issued or pending.