

To: Ravalli County Board of Commissioners
From: James R. Olsen

April 3, 2020

Dear Commissioners,

This is an update of my previous letter of March 23 (<https://ravalli.us/ArchiveCenter/ViewFile/Item/15571>). The data from around the world continues to indicate that the primary problem the a community faces is that the eventual arrival for a peak wave of COVID-19 cases will overwhelm existing medical facilities. While it is clear that the United States was slow to act – even though the eventual arrival and many of the consequences of COVID-19 were readily available in January. However, Montana and Ravalli county are fortune – we still have time to prepare.

As I suggested in the March 23 letter, the reports of fatality rates were overstated and estimates likely to come down. As the data below will show, the fatalities are real and are correlated with the hospitalization needs versus the community’s capacity — and correlated with the percentage of people tested, including asymptomatic people, and how quickly.

I contracted someone I know in New York; the crisis is real.

On Thu, Apr 2, 2020 at 1:24 AM James R Olsen ...:

We are having a discussion out here in Montana about whether or not the COVID-19 crisis in NY City is being overplayed by the media – especially whether there really is a shortage of hospital beds. ... Any info you have would be helpful.

Jim

Hi, Jim,

It's sadly real. Health care professionals are getting infected because of lack of PPE. A friend's sister-in-law, an ER doctor in Queens, test COVID positive and has to self-isolate. If people have any questions about its reality, have them read first person accounts from two NYC doctors in entirety

https://slate.com/technology/2020/04/coronavirus-new-york-er-doctors-log_amp

When community acquired COVID-19 cases will begin to ramp up in Ravalli County depends on a number of factors including how long and how effective physical distancing is. The estimate in the March 23 input could stand – or it could be put off. But it is likely that it will occur and, if it has not occurred by the time the stay-home directives are lifted – its likelihood will increase. Caution suggests that the Commissions and Governor should assume that Montana and Ravalli County WILL experience a wave of hospitalizations. Now is the time to get ready – the specific suggestions in the March 23 input are still relevant.

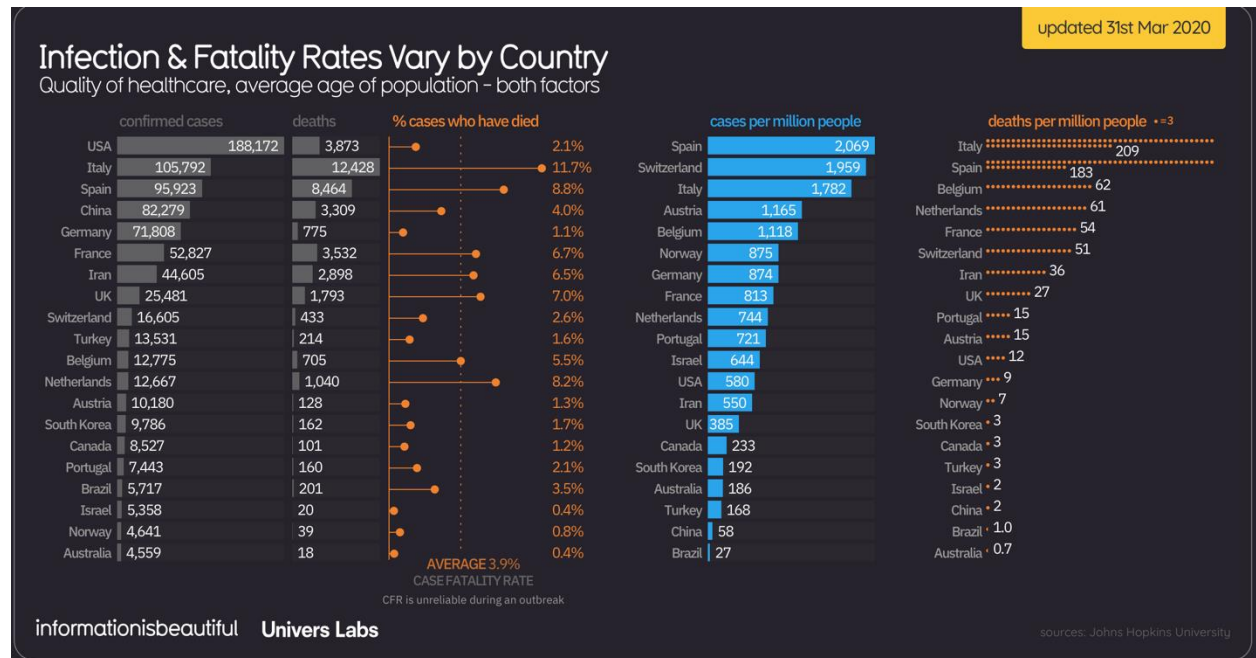
If we play “follow the leader” we can expect the results of those who we follow. If we simply do what others are doing in the United States, we can expect the same results. If we up our game and follow the example of a society with a better outcome, we can expect a better outcome.

The data below reinforces the suggestion in the March 23 input – South Korea should be emulated – extensive testing, strict tracking and isolation of people who test positive, open and truthful daily communications, *less* strict isolation rules than we are currently experiencing.

The data below, together with the recently announce projections by the President gives the following table – a rough suggestion of expected outcomes:

| | Popuation (Thousands) | Death Per Million | Deaths | |
|----------------|--------------------------|----------------------|---------|-----------------------------|
| Italy | 60,480 | 191.65 | 11,591 | March 31 count |
| Taiwan | 23,780 | 0.21 | 5 | March 31 count |
| Singapore | 5,850 | 0.51 | 3 | March 31 count |
| South Korea | 51,470 | 3.15 | 162 | March 31 count |
| US | 327,200 | 305.62 | 100,000 | Presdient's Projection |
| US | 327,200 | 733.50 | 240,000 | Presdient's Projection |
| Ravalli County | 50 | 733.50 | 37 | Using Presidents Projection |
| Ravalli County | 50 | 3.15 | 0.2 | Using S. Korea's experience |

Here is a commentary on the data and what it means.



CONFIRMED CASES - Since a confirmed case means, mostly, that you counted it with a positive test. This number is PEOPLE WHO HAD IT NOW intersected with PEOPLE TESTED. The PEOPLE TESTED has much to do with the availability of test kits AND the protocol for deciding to test.

There are four basic rules that seem to be applied to testing:

- Contact with a confirmed case
- Entering from somewhere where there were COVID-19 outbreaks
- Symptomatic
- Asymptomatic - usually individual choice.

S. Korea uses all four. The US uses the first three more or less.

Thus, while confirmed cases are easy to count the number has as much to do with the test kits as they do with the reality of how many people actually have it - VERY INACCURATE.

DEATH

Easy to count, the error being in erroneously assigning the cause to COVID-19.

$\% \text{CASES WHO DIED} = \text{DEATH} / \text{CONFIRMED CASES}$ \diamond Somewhat Accurate / Very Inaccurate = Very Inaccurate. NOT A USEFUL NUMBER

$\text{CASES PER MILLION PEOPLE} = \text{CONFIRMED CASES} / \text{POPULATION}$ \diamond Very Inaccurate / Accurate = Very Inaccurate. NOT A USEFUL NUMBER

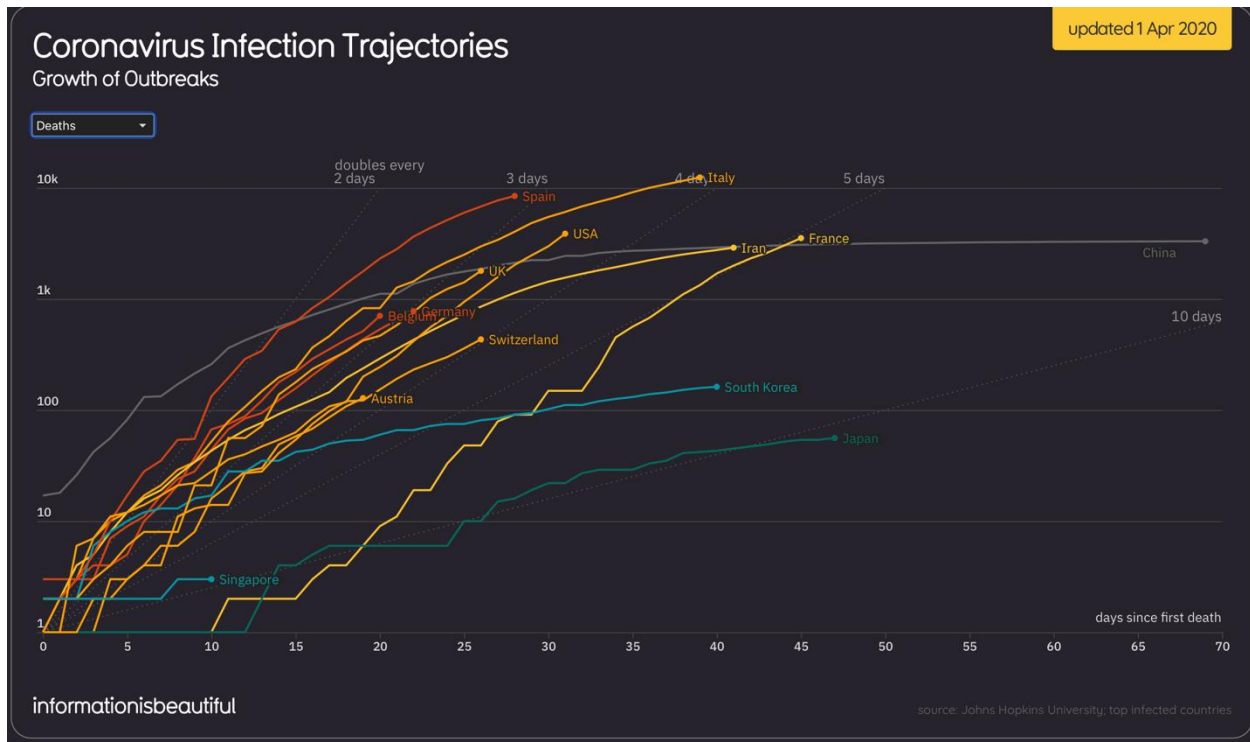
$\text{DEATHS PER MILLION PEOPLE} = \text{DEATHS} / \text{POPULATION}$ \diamond Somewhat Accurate / Accurate = Somewhat Accurate. A USEFUL NUMBER

We see the same type of information in the Missoulian - a graph of what we can count - but the numbers have little meaning when test kits are scarce and we are not testing large numbers asymptomatic people. The graph below is for Montana.

Total cases and Cases added daily



In these graph below, one thing that is import is whether the curve has flattened or almost flattened - meaning they are in the down side of their first wave of infections - or at least its fatal consequences.



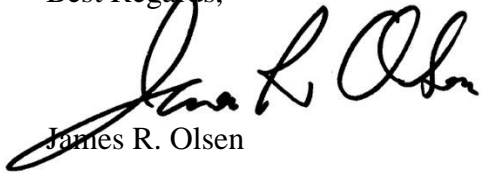
Singapore, Japan, South Korea, Iran - Italy is getting there. The USA is still in beginning stages. The higher the number of days it “doubles” is a measure of how effective the country has been at responding to “flatten the curve”. Singapore, Japan, South Korea being the best. The USA in the middle of the pack - still up for grabs of whether it will end up as good as Italy.

Comparing this graph with the previous one, what we would be looking for is industrialized countries with low death rates per million whose curve is flattening out the trajectory graph. Discounting China, South Korea stands out - 3 deaths per million and probably on the down side - which is 1/4 of the death rate of the USA which still has a long way to go.

So, WHY AREN'T WE DOING WHAT SOUTH KOREA DID?

The key thing in controlling death rates is to have the medical capacity to deal with interacting with the level of public, hospitalizations, and effective treatment when people get to the hospital. Allowing the problem to overwhelm the system leads to more deaths.

Best Regards,


James R. Olsen