An important post by epidemiologist Jody Boffa on COVID-19 in the South African context:

I am an epidemiologist. What that means is I study how diseases develop, behave, and spread and have been trained in how to appropriately evaluate the evidence and information related to a health issue. I have been keeping up with the news and developments on Covid-19, which includes seeing a lot of misinformation being shared on social media. Instead of calling out every questionable post I see, I have decided to do my part by sharing an educated opinion on the situation. In particular, I wanted to share some thoughts specific to South Africa to help put people's minds at ease, but also to keep people vigilant about what we as individuals can do to keep us and our communities safe from a potentially bad situation. Please note that this information is by no means exhaustive, and as we learn more about this new virus, this information may become less relevant.

Models of disease show that between 30-70% of populations will become infected with Covid-19 (the disease caused by the new coronavirus). Many people may not show symptoms or have only mild symptoms similar to flu or a cold, but about 10% of those infected (between 3-7% of the population) in an otherwise healthy population will require hospitalisation. In South Africa, that would mean 1.7 to 4 million people would require hospitalisation.

By and large, the lessons from China and Italy are this: we must slow the pace at which the disease is spreading. This may not prevent those 1.7 to 4 million people from needing to be hospitalised, but it will help to ensure that they don't all need to be hospitalised at the same time. Doctors in Italy, who were largely unprepared for how quickly the disease would spread, have reported that there are not enough hospital beds, ventilators, and healthcare staff to deal with the high volume of people requiring hospitalisation and they have had to make difficult choices about whose lives to save given limited resources. As South Africa has very few cases of Covid-19 to date, we have an opportunity to implement measures that can help slow the spread of infection now, so that people do not all get sick at once and overwhelm the health system. Groups of people that are more likely to die from Covid-19 from the data that has been reported so far are people over the age of 60 and/or people with chronic health conditions that affect the immune system.

I suspect that once Covid-19 is more established in South Africa, the numbers of people requiring hospitalisation for pneumonia and other severe complications will be higher than 1.4 to 4 million if we do not take preventive steps now because of specific health issues in our population that affect the immune system of younger populations as well; specifically HIV, tuberculosis (TB), and malnutrition. To date there is no data on Covid-19 in people who have these specific conditions, but here are my thoughts given what we already know about HIV, TB, and malnutrition:

- For people with HIV, those who are on ARV treatment and have a high CD4 count will likely be ok. People who do not yet know they have HIV or who are not on ARVs will be more likely to develop pneumonia and require hospitalisation.

- Because TB commonly affects the lungs (pulmonary TB), people who have undiagnosed pulmonary TB or are in the early stages of treatment for TB (first 2 weeks) may also be at a greater risk of developing severe complications from Covid-19 compared to the general public.

- When the body is not getting enough nutrients, it becomes harder to fight disease. This means that people who are malnourished may be more likely to have severe complications from Covid-19.

These three issues are of particular concern because they disproportionately affect people living in poverty, which will put a large strain on an already over-burdened public health system. It will therefore become doubly important to SLOW THE SPEAD OF THE VIRUS in South Africa.

To do so it is important that we share correct information. Covid-19 appears to spread via contact with surfaces that someone with the virus has also been in contact with. If a person that does not have Covid-19 touches a surface with the virus and then touches near their mouth or eyes, they can become infected. Washing of surfaces (including hands) with normal soap and water after exposure to the virus appears to remove this risk. We may also be breathing in the virus if someone near us coughs into the air (instead of coughing into their arm or into a mask) and we inhale droplets that are invisible to the naked eye.

As individual citizens, we can slow the spread starting NOW by:

- Washing our hands regularly, especially after being in public spaces.

- Trying to consciously avoid touching your face (easier said than done, but try to make a habit of it), and also avoiding touching other people in public spaces (hugs, kisses, shaking hands, etc). This is only a temporary measure until the pandemic has run its course.

- Avoiding spaces with large numbers of people gathering whenever possible. If you have been to a large gathering, follow above steps.

- Staying home from work or school if you have any signs of illness to avoid making others sick.

- If you have symptoms like cough, fever, or shortness of breath, calling a clinic or doctor's office to determine if and when you should go in to be tested for Covid-19, and wear a mask when you go. Please note: If you have symptoms of cough and sneezing, a mask can prevent you spreading the disease to others through the drops of saliva that go into the air when you cough or sneeze. Please note that wearing a mask if you are healthy will not prevent you getting disease because the virus is small enough to be breathed through most masks. Do not wear masks unnecessarily so that they will be available for sick people to wear.

- If you have recently travelled outside of Africa or been in contact with someone who is sick with Covid-19, be particularly vigilant about watching for symptoms and distancing yourself as much as possible from others (e.g. standing 2 metres away from others) for at least two weeks.

- If you are diagnosed with Covid-19 and are asked to go home and self-isolate, please stay home. Continue to wash your hands regularly and do not share plates or cups with other household members. Try to stay at least 2 metres away from others in the home, if possible, until the symptoms have passed. Wear a mask if you need to leave home.

As South Africans, we can also get ahead of the virus in the following ways:

- Know your HIV status. I want to encourage everyone to have an HIV test if you have not tested since the last time you had penetrative sex without using a condom. Yes, even those in committed relationships because it takes two to tango, and you do not know 100% that your partner has been faithful. You can encourage others to get HIV tested by letting them know that you too have been tested. If you have HIV, start ARVs and continue to take them. We are fortunate that ARVs are free of charge in South Africa. Please also support anyone you know with HIV to make sure that they can routinely access their medications (you can offer to fetch their meds or drive them to a collection point if not). This will help slow the spread.

- Know the common symptoms of TB: cough, fever, night sweats, unintended weight loss. If you have two or more of these symptoms, you should ask a healthcare worker to screen you for TB. Cough and fever could be TB or Covid-19 (or both) in South Africa. Talk to your healthcare provider about your risk factors and they will be able to determine what to test you for.

- Do not spread misinformation about the virus. If someone sends you information about Covid-19 on social media that sounds different from the messages above, verify it first with a trusted source (e.g. Department of Health website) before passing it on to others. By sharing only correct information, we avoid panic and encourage others to protect themselves in the best way possible.

- Finally, support one another. There is no need to panic. If the epidemiologic models are correct, the majority of us will be exposed to Covid-19 at some point in the coming months. For those with otherwise healthy immune systems (including infants, children, and pregnant women), Covid-19 will likely cause flu-like symptoms or maybe no symptoms at all, and then it will pass. If you know someone who develops the disease and they are self-isolating, ask how you can support them. You could offer to bring them groceries and check in regularly via WhatsApp to make sure they're not feeling isolated.

In sum, we must brace for the possibility of our health systems (both public and private) becoming overwhelmed if Covid-19 spreads too quickly. If we can slow the spread with these few small sacrifices, then if a time comes when we or someone we love requires hospitalisation, there will be space enough to help them get the care they need to properly recover and return to normal life.