Stay Safe & Stay at Home

The Corona Virus (COVID-19) outbreak hit Wuhan City, the capital of Hubei Province in China in December 2019. As a person living in Zambia, Southern Africa, the thought of Zambia battling the epidemic was far-fetched. Alas on March 18th, 2020 the government through the Ministry of Health reported Zambia’s first two cases. Whilst the news was shocking, there was a degree of comfort in the realization that the cases were of foreign transmission from a couple that had traveled to France which by then was a high-risk area of the pandemic, and in the assurances from the Government Leadership that everything was under control.

Zambia then reported cases of foreign transmission through a group of people that had traveled to Pakistan for some festivities. Through this group of travelers, Zambia hence reported local transmission of COVID-19 to the Zambia community at large, with a driver and a maid coming from the densely populated, low-income communities of Lusaka.

Zambia continues to register cases and as of 2nd April 2020 the Ministry of Health gave the following update to the nation regarding the status of COVID-19 in the country as follows;
As can be seen from the above data, COVID-19 has hit Zambia and the consequences are feared. It has been reported that there have been local transmission of the virus to Zambians through person to person contact originating from the group of people that had traveled to Pakistan and upon their return interacted with the different members of the community. The points of transmission have been through a Driver, Domestic Worker, Medical Practitioner and at a Church gathering attended by an infected person.

Comparisons of the pandemic with the United States of America (USA) and Italy, raises questions on what can be done differently to avert the further spread and anticipated death toll.

1. Italy, a small country compared to the USA, has been reported to be second in the number of deaths and confirmed cases of COVID-19. How did they get to that level of vulnerability? The lessons of Italy show that with a small number of 39 cases, the Italians continued to live normal lifestyles and did not keep away from social gatherings, which led to the current death toll and number of confirmed cases in Italy as of 31/03/2020 being 12,428 and 106,000 respectively. What can Zambia do to avoid such mistakes?

2. What other measures were put in place by the Italian authorities that were not followed by the citizens? Italians in the name of democracy and human rights ignored the government directives and even intimidated the police. Are Zambians law-abiding citizens and do they follow government directives?

3. Italy with better public health facilities than Zambia has been overwhelmed by the tragedy of the epidemic, with large numbers of case-specific mortalities daily. To this effect, the military has been called in to assist with carrying dead bodies in military trucks for burial in unmarked graves. What should Zambians do to prevent this from happening considering that Italy, with better health facilities, has 25% of its population infected?

4. What is the Zambian government telling or ordering the citizens to do differently? Are Zambians aware of the benefits of preventing the spread of COVID-19 as compared to managing it since there is no cure? Statutory instruments number 21 and 22 of 2020 regarding
Coronavirus were passed as laws in Zambia. Why did the group that traveled to Pakistan ignore the self-isolation and quarantine policies as guided by the law? Their actions account for 26 of the 39 confirmed COVID-19 cases in Zambia. What should the government do immediately to contain the situation which is spreading vastly amongst citizens in the country?

5. What measures have been put in place by the government to ensure that going forward all preventive measures are adhered to by all citizens?

6. Has the government done enough to ensure that there are no more confirmed cases and better still managed the situation at hand?

7. In a worst-case scenario, is my country prepared for any disaster? Is there adequate Human Resource, Equipment, and Infrastructure to manage the situation?

These are questions that keep running through my mind with no immediate answers.

**Exponential Model**

The exponential growth of the virus with higher numbers is cause for worry.

One can think about the infection rate \((N/t)\) like velocity, which increases with movement. It is like a moving car whose speed depends on where it is. The further it goes, the faster it goes. In this analogy, the distance traveled is like the number of people infected. The model is meant to give a rough estimate of how numbers can change if we do not stop the spread. Our current number of cases seems small until they are not, and then it's too late.

Now let's look at Zambia, so far, we have recorded 39 cases from the day government announced the first case on the 18th March. We make a careful observation here that there may be more cases than we know who have not been tested. Others may have the disease and have not been detected and this can only work if our services were optimal. We are, therefore, working with rough figures and that at best the worst-case scenario could justify this exponential model. The tragedy of COVID-19 is that one transmits the infection up to 14 days before the disease signs and symptoms appear. For each infected person, the probability of infecting many others is very high. The probability differs from person to person, but remember, for probability values, no matter how small the value is, it is still a chance.

In the case of Zambia, to predict new cases after a certain period of time \((t)\) which is in days, we write an exponential function as:

\[
 f(t) = a \cdot b^t
\]

Where \(a\) is an additional factor and \(b\) is the infection rate which is 2.76. For argument sake, we can put \(a=1\) and the equation becomes:
\[ f(t) = 2.76^t \]

Now let's predict the number of new cases assuming the infection rate is constant and that the Zambian people do not listen to the advice of staying home and continue to lead a life as usual.

After t=5 days we will have 160 new cases

After t= 7 days we will have 1220 new cases

After t= 10 days we will have 25,650 new cases.

From that, it is very possible that in less than a month, suddenly the whole of Zambia can be infected if we do not put strict measures in place to stop the spread. That’s exponential growth for you! The situation is **fine until it’s not, and then it’s too late**!

It is based on these calculations and projections that I urge the government to consider a serious lockdown on Lusaka and restrict movements. We have to seriously review the ways we are implementing the response to the spread of the virus by ensuring that **EVERY** citizen is aware that COVID-19 is a global pandemic as declared by the World Health Organisation (WHO) on the 19th March 2020.

This pandemic deserves all the seriousness it can get! Since Lusaka has been declared an epicenter, the government needs to consider banning all travel to and out of Lusaka. This means that it will be easy to contain and manage the situation in the shortest possible time. This will also ensure that the spread of the virus does not escalate to the densely populated communities.

Prince Charles, the Prince of Monaco, Prime Minister Boris Johnson, has confirmed that they tested positive for COVID-19 (despite them having excellent medical care and facilities at their disposal) and announced it to the world. This shows the gravity of this virus and that anyone can get it.

We notice the positive work that the government has already done through the Ministry of Health. For example, the running of sensitization programs through various media houses, the conversion the Courtyard Hotel to a quarantine center in case the situation spirals out of hand at Levy Mwanawasa Hospital, and all Provincial hospitals having dedicated wards and space for patients, the mandatory 14 days quarantine of all truck drivers and visitors in the country and the cancellation of all flights to Mfuwe district, Copperbelt, Livingstone, and Northern Provinces. Although these efforts are being made, they could be rendered ineffective considering the exponential growth in numbers of corona cases, hence more needs to be done.

It is also a time that the Government combined efforts with the Church, the Civil Society and the private sector to combat the spread of the virus. The Church has responded to the situation by closing church gatherings and canceling or postponing any functions. This is not enough as we are part of the leaders of our various communities. It’s a challenge for Churches to come
up with other available means of communication to reach out to their faithful such as TV and radio stations and online media to continue offering pastoral care. It is through the various means of communication that messages of hope, compassion and effective information dissemination can be transmitted. The Church as an important stakeholder can come on board to help the Government disseminate messages of COVID-19 and the benefits of staying at home with their families. Considering that Churches have large followings, the government can effectively disseminate messages of prevention to the grassroots in various languages through them. It is my hope that people will be able to follow and adhere to the messages from the Ministry of Health regarding COVID-19. This is also a challenge to Church leaders to rise to the occasion and help people change their way of life by interacting with them during this period when the nation is faced with a global pandemic.

In conclusion, we wish to appeal to the government to show normalcy and leadership. We should support any positive measures being implemented by the government. We feel this is a critical time when curfews or a lockdown for the citizens is not an option but a necessity as it is for the good of all Zambians. We must ensure, by all means, that the situation does not become worse because this is a moment when an end must justify the means. The government must do everything within its power to protect all Zambians. The time to make a difference and do the right thing is now as we are all accountable for one another through the decisions we make.

*Article written by Fr. Kelly Michelo, a JCTR Board Member and currently serves as School President of St. Ignatius College, Lusaka. Email: michelosj@jesuits.net Tel: +260974513483
(Writing in his personal capacity)*