University of the Philippines Manila and National Institutes of Health

Position Statement on the Urgent scaling-up needs for a national coordinated response to the Coronavirus Disease 2019 (COVID-19) Pandemic: Whole-of-Society Approach

(30 March 2020 update)

Executive Summary

Background:

Key representatives from different colleges of the University of the Philippines (UP) Manila and the institutes of the National Institutes of Health (NIH) shared insights grounded by their experiences and expertise in public health, medicine, policy development, clinical epidemiology, molecular biology, disaster management, infection control, and social science, among others. The objective of this technical working group is to generate consensus policy recommendations with a whole-of-society approach.

Positions and Recommendations:

1. We are one with the Philippine Government in addressing the COVID-19 pandemic. The UP Manila and the NIH recognize the lead role of the Department of Health in the control and management of this disease and of all diseases.

2. Preparedness of Health Facility.

   a. We are in support of the DOH Circular 2020-0049 on the general guidelines for health facilities for COVID-19.

   b. As an added precaution, hospital staff should also practice physical isolation even during mealtimes while on duty, and be tested every three weeks.

   c. DOH-identified COVID-19 referral hospitals should be given full government support in converting existing facilities to handle expanded numbers of intensive care unit (ICU) patients. This means immediately providing funds for structural improvement, additional equipment, and supplies, as well as trained manpower.

   d. We recommend an intercity-wide service delivery network for sharing of medical personnel in order to meet the "1-week duty with 2-weeks off" rotation of health

workers which requires a round-the-clock Infectious Disease and Pulmonary specialist in all COVID-19 cases.

3. Laboratories and Testing

a. Ensure the use of only FDA approved test kits, and full compliance of biosafety procedures.

b. The Department of Health should collaborate with academe/ research institutes to assess the cost effectiveness of expanding facility based molecular test kits vs. stand alone (point of care) test kits, vs. rapid test kits, or a combination thereof.

4. Clinical diagnosis of COVID-19

a. An algorithm for the clinical diagnosis of, and management of COVID-19 be created immediately by the DOH for use by physicians in the country following the latest PSMID guidelines (2020), specially for level 2 and level 1 hospitals, and RHUs.

5. Regulating face masks and other basic necessities

a. It is important to note that caution must be practiced in wearing of mask among healthy young children, especially toddlers.

b. Avoid kissing children to minimize potential contagion.

c. The National Government may consider giving incentives to local manufacturers to produce or increase current production levels of PPEs.

d. Initiatives from the non-government, academic, and civil organizations committed to share their innovations on developing new technology for health emergency needs must be given recognition and support, including making PPEs from readily available materials, open source design for affordable and easy to build isolation tents, ventilators, recycling of PPEs, etc.

e. As a principle of minimizing public health risk, during this period of pandemic local transmission, it is recommended that use of face mask should include health care providers, symptomatic patients, people considered high risk, and for all people whenever they will be in crowded places.

6. Physical Distancing instead of Social Distancing

a. The use of physical distancing as appropriate term to use for the desired behavior amidst COVID-19, and as advocated by the World Health Organization.

7. Stricter Community Quarantine

a. During this phase of the pandemic, the National Government must suspend operations of ALL business enterprises in specific high infection areas, for at least 14 to 21 days, to allow adherence to Physical Distancing, as a way to break the COVID-19 local transmissions.

b. To avoid possible spread of virus from patients exhibiting mild to moderate (with no risk factors) COVID-19 suspected patients (clinically diagnosed), it is recommended to put them in isolation in community facilities like hotels and other unutilized government buildings, provided that financial and logistic support will be provided by the government.

c. To mitigate financial strain and service inaccessibility to households, the National Government must step in to fill in the gaps, specifically:

   i. to give money to citizens money for staying home and isolating themselves, or

   ii. to provide all the basic daily needs to all isolated citizens in Luzon (e.g. free provision of meals, water, medicine, hygiene products, disinfectants, face masks, surgical gloves, education of children, home care for elderly, the bed bound, and others, where appropriate).

8. Protecting the elderly, poor and other vulnerable groups

a. LGUs must ensure that there are enough medical supplies for the non-communicable disease needs of the elderly, poor, and other vulnerable groups.

b. All public and private facilities and institutions must step up their efforts to comply with physical distancing, strict quarantine, hand washing, and others, to institutionally protect the elderly, poor, and other vulnerable groups.

c. Social services of the *barangays* need to be enhanced.

d. Early release of the 4Ps or conditional cash transfer grant on a regular basis (not quarterly).

e. Subsidize food for the indigents.

f. Provision of regular water supply for those affected by water shortages.

g. Provide adequate isolation areas separate from their cramped areas of domicile.

h. Temporarily include all affected daily wage earners into the 4Ps program.

i. Additional transportation and daily living support to access their medical, hospital, nutritional, and social needs. Thus, extra care should be provided to purposefully and regularly visit and check on these vulnerable members of society.

9. Projected Cases of COVID-19

a. The DOH and the National Government may need to increase our stock of ICU beds.

b. The DOH and the National Government may need to increase the number of available mechanical ventilators.

c. The National Government may seek assistance from countries who have improved case rates, for example, the consequential unused beds/ facilities from China would be one, and the testing capacity of South Korea for another, and others such as giving incentives to manufacturers and related industries to produce ventilators, ICU beds and other needed equipment.

d. The DOH should ramp up local COVID-19 clinical trials

e. The DOH should stockpile enough antivirals.

f. The DOH should consider allowing limited compassionate use of off-label use of potentially effective medicines being studied by the Chinese, Japanese, American, and French national ministries of health.

10. Whole of Society approach on enhanced community quarantine of Luzon

a. We support the creation of the National Inter-Agency Taskforce on COVID-19.

b. Local government units should play a vital role in the dissemination and implementation guidelines of community quarantine.

c. Each city or municipality covered by the community quarantine should prepare a community-based facility for isolation for persons requiring isolation, but do not require care in a health facility nor can be accommodated in a home fit for isolation.

d. Barangay health workforce should be mobilized to entice and ensure continuous participation in the enhanced community quarantines.

e. While saving lives is more important than saving the economy, financial and economic consequences of stakeholders should be considered comprehensively:

i. Businesses, especially SMEs, in the food, drink, banking, and pharmacy sectors (among others considered essential in the current situation) will need guidance on how to adjust or temporarily suspend operations and implement physical distancing.

ii. Daily wage earners and the informal sector will have to be assured of financial safeguards that will ease any pressure for them to continue to work, and thus, ease crowding in checkpoints.

iii. Ensure that nobody will be left behind – all those who are affected must receive quality care as soon as they need it, and resources are available, especially for the elderly, the poor, and vulnerable groups.

iv. In this Public Health Emergency situation, testing should be made free for all, even for repeat testing for frontliners and their close contacts.

v. Safe and reliable transportation should be provided free for:

1. healthcare workers;

2. workers in other vital support sectors such as pharmacies, water refilling stations, emergency response units, banking sector, and the like; and

3. all patients requiring treatment/ hospital care (e.g. emergencies, dialysis, chemotherapy, etc.)

f. PhilHealth should create new benefit package for COVID-19 procedures, including procedures, medicines, and psychosocial support.

g. The National Government should capacitate local government units to engage and pay for temporary housing units for frontline workers, and for minor symptomatic COVID-19 patients.

h. Plans should be put in place for the eventual scaling up of testing to include all at risk asymptomatic residents so that future second and third waves of outbreaks would be prevented, as experienced in Hong Kong, China, and Taiwan.

i. Instill social accountability among the public by having contextualized and culturally sensitive campaign to comply on strict home quarantine, physical distancing, reporting protocols, and not spreading fake or unverified news.

11. Supporting and safeguarding our human resources for health

The Department of Health central office MUST step in and provide for all frontlines, particularly healthcare workers and ancillary support staff, logistics staff and security personnel:

a. Adequate space for assigned tasks
b. Food and shelter
c. Complete PPE for each shift of work
d. Transport while they serve their respective communities
e. Financial safeguards must be put in place to care for those they may leave behind in case of their unfortunate demise in the line of duty.
f. Extra hazard pay for frontliners
g. Access to correct information, instruction, and training on infection prevention and control (IPC).
h. Instruction on the appropriate use, putting on, taking off, and disposal of personal protective equipment (PPE).
i. Safe and adequate living quarters and basic needs, especially when required to undergo isolation.

12. Specialty Societies

We fully support the active participation of the professional societies and associations that specialize on infectious diseases in providing guidance to the technical teams of government and the Inter-Agency Taskforce on emerging infections.

13. Mental Health and Social Concerns

a. Putting ICUs near psychiatric wards, or that frontliners should be capacitated with psychosocial care for patients.

b. ICUs should not completely disconnect patients from their relatives or loved ones. Social media access, and clear but true barricade maybe adopted in ICUs.

c. Telephone or virtual psychosocial counseling should be encouraged and allowed at this time.

d. Allow Violence Against Women and Children (VAWC) services flexibility to comply with quarantine and physical distancing rules.

e. All PNP and military hotlines must manned 24/7, and not allow calls to be unanswered. The Office of the President's 888 hotline came be used as a mechanism to police the PNP and Military hotlines.

14. Long term strategic plan

UP Manila and the NIH support the creation of a whole of society, prevention-focused, and proactive Center for Disease Control (CDC) to quickly respond to, and even prevent future epidemics as a complement to vital service delivery work of, and as a means to safeguard the vital population health gains won by the Department of Health.

Problem Definitions and Discussion

A technical working group was constituted by the University of the Philippines Manila (UP Manila), spearheaded by the National Institutes of Health (NIH), in response to the recently proclaimed pandemic by the World Health Organization on the coronavirus disease 2019 (COVID-19). Key representatives from different UP Manila Colleges and NIH Institutes shared insights grounded by their experiences and expertise in public health, medicine, policy development, clinical epidemiology, molecular biology, disaster management, infection control, and social science, among others. The objective of the discussion, initially face to face, and eventually shifted to asynchronous email circulation, was to generate consensus policy recommendations with a whole-of-society approach. This current publication is an update of the position statement previously issued on 04 Feb 2020.

The UP Manila and the NIH remain to be strongly in support to the current initiatives of the Department of Health (DOH), and are one with the Philippine Government in addressing the COVID-19 pandemic. The UP Manila and the NIH recognize the lead role of the Department of Health in the control and management of this disease and of all diseases.

From the reported 44 cases last 31 December 2019, the current running global total, as of 30 March 2020, is reported to be 787,411 confirmed cases with 37,846 deaths, affecting 200 countries and territories (Worldometer, 2020). It took three months to reach 100,000 cases, and from there, only 12 days to reach 200,000 (CDC, 2020). As for the Philippines, the DOH reports 1,546 confirmed cases with 78 deaths, and 42 recoveries.

The Research Institute for Tropical Medicine (RITM) uses FDA approved test kits and continues to validate international test kits donation that will supplement our local supply. With the pandemic level of sustained local transmissions on hand, the Institute has been overwhelmed with the increasing demand to confirm or clear PUIs in coordination with the DOH, COVID-19 referral hospitals, and sub-national laboratories. The NIH has been actively assisting RITM in this vital work. Researchers from the NIH have developed a COVID-19 diagnostic test kit which is priced six times cheaper than its foreign counterparts. This test kit was given a Certificate of Exemption (COE) from product registration by the Food and Drug Administration (FDA) on March 10, 2020. The kit is currently being field tested with confirmation of the results using gene sequencing at the Philippine Genome Center.

The UP Manila and the NIH agree with the following principles of infection prevention and control when the COVID-19 is suspected:

1. Early recognition and source control. Specifically, for health care workers, both in health facility and community settings, to be on heightened level of clinical suspicion for COVID-19, and for facilities to: post signages encouraging symptomatic patients to alert health care workers of their condition, and institute screening procedures for all who enter, including thermal cameras.

2. Standard precaution for all patients. Specifically, for symptomatic patients and suspects to wear face masks, for everyone to practice respiratory etiquette and

hand hygiene. For asymptomatic patients to keep at least between three feet to six feet distance from symptomatic patients or suspects.

3. Droplet and contact precaution. Specifically, for health care workers to wear the proper Personal Protective Equipment (PPE) which include N95 face masks, wearing gloves, eye protection, etc. It should be noted that the full value of PPE is dependent on the competence of the user and the inherent difficulty to determine if the equipment is still 100% functional. We note that the DOH has already reported that nine of the COVID-19 deaths were healthcare workers, and more are being quarantined due to inadequate PPEs.

4. Administrative control. Specifically, for facilities to provide training for all health care workers, and patient's care providers, and to create and implement policies on surveillance and recognition, laboratory testing, maintain adequate patient to staff ratio, and infection prevention and control (IPC) procedures.

5. Environmental and engineering controls. Specifically, for facilities to fulfill appropriate and environmental disinfection, and to provide spatial separation for symptomatic patients and suspects. For quarantine areas, air inside a room can be naturally replaced in six (6) hours if the windows are open with an air change rate of 8, which is achieved in areas with good ventilation, so that if the area needs to be used within a shorter time, disinfection must be done. Corollary to this, isolation tents with closed walls are discouraged since closed walls may increase the risk of transmission within the tent.

Preparedness of Health Facility

With the epidemiologic history of the Philippine on emerging diseases such as SARS and MERS-CoV, government and private hospitals alike are expected to have established emergency protocols on disease outbreak management. The UP Manila and NIH are in support of the Department of Health Circular 2020-0049 on the general guidelines for health facilities for COVID-19 and the specific guidelines on infection and prevention and control, case definition, patient screening, patient triage, referral for admission, isolation precautions, notification, discharge and follow ups. On the other hand, it should be noted that the Philippine College of Physicians expressed in 17 March 2020, that as an added precaution, hospital staff should also practice social isolation even during mealtimes and be tested every three weeks.

At present, the Department of Health announced that the Philippine General Hospital, the Lung Center of the Philippines, and Jose N. Rodriguez Memorial Hospital are the designated COVID-19 referral hospitals in the National Capital Region. These identified referral hospitals should be given ample time and full government support in converting existing facilities to handle expanded numbers of intensive care unit (ICU) patients. This means immediately providing funds for structural improvement, additional equipment, and supplies, as well as manpower. We recommend an intercity-wide service delivery network for sharing of medical personnel in order to meet the "1-week duty with 2-weeks off" rotation

of health workers which requires a round-the-clock Infectious Disease and Pulmonary specialist in all COVID-19 cases.

Laboratories and Testing

Now that the Philippines is in the midst of the COVID-19 pandemic, efforts should now also handle case management, in addition to case finding and quarantine. We support the National and Local Governments for tapping into their disaster funds to mobilize and upgrade other laboratories to deliver the RITM tests, which will also lead to faster detection outside of the National Capital Region. At present, testing centers/ subnational laboratories trained by RITM and with PCR are the UPM National Institutes of Health, San Lazaro Hospital, Lung Center of the Philippines, Vicente Sotto Memorial Medical Center, Baguio General Hospital and Southern Philippines Medical Center. Mobilizing all the subnational laboratories will accelerate testing nationwide.

There should be well-communicated and consistently implemented criteria for testing and information on how the test kits can be accessed. Detectability is upon the onset of symptoms with average incubation of five to six days. The chance of asymptomatic patients to be positive is 8%. Hence, there should be prioritization of symptomatic patients to be tested, otherwise, resources will be depleted. It is best to reinforce self-quarantine for asymptomatic patients or suspects and to actively monitor them. Further, all personnel handling biological samples should be trained in biosafety and biosecurity.

Even as the Philippines is now urgently expanding her molecular testing capacity for confirmatory testing of SARS-CoV2, the virus that causes COVID-19, Abbot Laboratories has announced that it has developed and been granted a USA FDA approval for an isothermic molecular stand alone (point of care) noninvasive (requires nasal swabs) test kit that would give results in 5 minutes, while Bosch Healthcare Solutions announced their rapid molecular diagnostic test kits will give results in 2.5 hours. Further, the US FDA also granted emergency use of Cepheid's Xpert® Express SARS-COV-2 cartridge which can provide rapid detection in approximately 45 minutes with less than a minute of hands on preparation of the sample. However, it is currently marketed at the price of 20 USD which is double the price of other tests run on the same GeneXpert system, and six times the production cost. Hence, it maybe out of financial reach of low- and middle-income countries that needs to scale up testing capacities (TAG, 2020).

In the Philippines, GeneXpert machines are widely available due to its use in tuberculosis diagnosis. An advantage of this test is that patient samples are directly analyzed by this machine without the need for additional steps, such as RNA extraction. At present, this is the only point of care (POC) test kit approved in the Philippines, and there are no other rapid test kits approved by the local FDA. However, the compatibility of the GeneXpert machine with the new POC test for SARS-CoV-2 detection will need to be explored further. Also, the use of this machine will also require adherence to relevant laboratory protocols.

Thus, the National Government could have collaboration with the academe/ research institutions to assess the cost effectiveness of expanding facility based molecular test kits vs. stand alone (point of care) test kits, or a combination thereof.

Clinical diagnosis of COVID-19

Because of the high infectivity of SARS-CoV-2, delays in initiation of treatment of or delays in the isolation of patients increases the infection rate. Thus, in the interim, it would be prudent from a Public Health point of view to quickly screen symptomatic patients and separate them from asymptomatic patients while awaiting the results of confirmatory molecular test.

Before the widespread availability of test kits, China relied on clinical diagnosis to initiate treatment or quarantine. Therefore, it is recommended that an algorithm for the clinical diagnosis of and management of COVID-19 be created immediately by the DOH for use by physicians for all Level 1, Level 2, Level 3 hospitals, and RHUs, following the Philippine Society for Microbiology and Infectious Diseases latest guidelines (PSMID, 2020).

Information dissemination amidst the pandemic

To proactively combat proliferation of fake and unverified information on COVID-19, the Department of Health launches communication platforms to timely release clarificatory reports. This include the DOH PH COVID-19 Viber group (as led by Dr. Beverly Ho) and Fact Check on DOH facebook page. Further, the strong presence of DOH spokespersons (e.g. Sec. Francisco Duque and Dr. Maria Rosario S. Vergeire) has provided a calming and credible voice of leadership and reason in this time.

Possible communication strategies for target audiences are as follows:

1. Scientific community: Communication should aim to offer the latest scientific information. The circulating unscientific claims on the absolute prevention and treatment of COVID-19, particularly food concoctions and medications untested for COVID-19, pose health risk to the public if not rectified. It is still important to note and reiterate that balanced diet, rather than focus on specific foods, is the proper way to boost the immune system, together with adequate exercise.

2. Lay persons: With the overwhelming scientific and legal information in the attempt to make the public understand the current pandemic, there is a possibility that lay persons might feel anxious or have fear of being abandoned by the current healthy system and governance. Development of appropriate message contents and forms is needed to respond to these fears.

3. Hospital personnel: Given the continuous increase of confirmed COVID-19 cases, including healthcare workers, and the growing discrimination against our frontliners in the fear that they maybe carriers, healthcare workers are at risk of feeling anxious due to overwork and fear. The Inter-Agency Taskforce should release guidelines on how these concerns can be alleviated.

The Inter-Agency Taskforce should also issue guidance for LGU-operated, university-affiliated, and private hospitals, and ensure that their efforts are harmonized with the support being received by DOH-retained hospitals. Further, it is imperative to ensure that

official statements being issued by national and local government agencies are in line with the DOH and WHO recommendations.

Panic may lead to untoward behavior such as panic buying, hoarding, dissemination of false information, or to clinically effect significant distress, which could negatively impact our immune system. Thus, all announcements, directives, guidelines and press conferences should aim to decrease panic or non-compliance of physical distancing.

1. Avoid vague or ambiguous statements.
2. Ensure that citizens know exactly when and how their basic needs are being addressed even as we keep them inside their homes.
3. Make sure that concrete guidelines have been crafted and agencies are already equipped to implement *before* any press conference or public announcement is done.

Mass masking

Given that there is now a pandemic level of local community transmission of COVID-19 in the Philippines, and there is evidence of transmission before symptom onset (Bai et al., 2020; Zou et al., 2020), researchers from Hong Kong and the UK (Leung, Lam & Cheng, 2020) were led to conclude that so far, only community compulsory physical distancing and mass masking were successful in containing COVID-19 in China, because it removed the stigmatization that only sick people wear masks, and stopped the transmission from apparently healthy patients. This prevention of pre-symptomatic transmission is also recommended by Oxford and University of Hong Kong researchers (Feng et al., 2020).

Thus, while there is still controversy on mass masking, as a principle of minimizing risk, it is recommended that use of face mask should include health care providers, symptomatic patients, people considered high risk, and for all individuals whenever they will be in crowded places.

Regulation of face masks and other basic necessities

We support the Department of Trade and Industry (DTI) for issuing Memorandum Circular 20-07, penalizing unreasonable increase of prices in all basic necessities and setting quantity limit of vital and essential commodities per transaction. This is also consistent with the guidelines of Oplan Metro Yakal Plus on disaster preparedness.

With the recognized lack of face mask and other PPE supplies, even from imports, the National Government may consider giving incentives to local manufacturers to produce or increase current production level. Further, initiatives from the non-government, academic, and civil organizations committed to share their innovations on developing new technology for health emergency needs must be given recognition and support. This includes making PPEs from readily available materials, open source design for affordable and easy to build isolation tents, ventilators, recycling of PPEs, etc.

Physical Distancing instead of Social Distancing

On 15 March 2020, President Rodrigo Duterte declared a "State of Calamity" for Luzon in order to enforce 'enhanced community quarantine,' with curtailed mass public transportation, and social distancing at all times.

In general, social distancing implies the lack of social support and solidarity with one's fellowmen. Amidst the calls for empathy and for *bayanihan*–the use of the term social distancing is confusing. Hence, it would be worthy to consider the use of *physical distancing* as appropriate term for the desired behavior amidst COVID-19, and as advocated by the World Health Organization. This term will be consistent with the advised physical distance of at least one to two meters from the next person, and avoiding public or mass gatherings.

Stricter Community Quarantine

Because essential businesses (e.g. health care, supermarkets, take-out restaurants, etc.) are still allowed to operate, their workers who commute, are unable to maintain this physical distancing. During this phase of the pandemic, the National Government must suspend ALL business enterprises in specific high infection areas, for at least 14 to 21 days, to allow adherence to Physical Distancing, as a way to break the COVID-19 local transmissions.

To mitigate financial strain among and service inaccessibility to households, the National Government must step in to fill in the gaps, specifically:

1. to pay the affected citizens money, much like what the team of researcher Dr. Naria-Maritana (2020) has concluded, and what the South Korean, Singaporean, and Malaysian governments have done for everyone who stayed home and isolated themselves during their COVID-19 pandemics, or
2. for National Government to provide all the basic daily needs to all isolated citizens in Luzon (e.g. free provision of meals, water, medicine, hygiene products, disinfectants, face masks, surgical gloves, education of children, home care for elderly, the bed bound, and others, where appropriate).

To avoid possible spread of virus from patients exhibiting mild to moderate (with no risk factors) COVID-19 suspected patients (clinically diagnosed), it is recommended to put them in isolation in community facilities like hotels and other unutilized government buildings, provided that financial and logistic support will be provided by the government.

Protecting the elderly, poor and other vulnerable groups

As stated by Sec. Duque during a press conference on 17 March 2020, 98% of those who died from COVID-19 belonged to the older age bracket and have co-morbidities. The LGUs must step up to protect this age group. Ensure that there are enough

medical supplies for their non-communicable disease needs and all public and private facilities and institutions must step up their efforts to comply with physical distancing, strict quarantine, hand washing, etc. For example, it was observed that some drugstores do not implement social distancing among the elderly who buy their medicines. Moreover, given the urban poor settings, we should recognize that there are elderly persons who live alone and will not have access to transportation or delivery of essential services. Hence, social services of the barangays need to be enhanced.

There is a heightened need to ensure that the poor, homeless, persons with disability (PWD), and the vulnerable can access much needed support, such as food and shelter. While there is still not enough evidence that these marginalized populations have higher risks, many of the quarantine measures (e.g. suspended public transport, work, etc.) expose them to additional burden. The government has to provide measures to mitigate this such as:

1. Early release of the 4Ps or conditional cash transfer grant faster than quarterly
2. Subsidize food for the indigents
3. Provision of regular water supply for those affected by water shortages
4. Provide adequate isolation areas separate from their cramped areas of domicile
5. Temporarily include all affected daily wage earners into the 4Ps program
6. Additional transportation and daily living support to access their medical, hospital, nutritional, and social needs. Thus, extra care should be provided to purposefully and regularly visit and check on these vulnerable members of society.

Projected Cases of COVID-19

The DOH announced that according to a team from DOH and WHO, the COVID-19 epidemic in the Philippines may reach 75,000 cases in two months, if no interventions are implemented. Similarly, in an unpublished study, the Institute of Health Policy and Development Studies (IHPDS) of UPM NIH, estimates that if not intervened, the epidemic may run for 120 days infecting 75,300 cases. The height of the epidemic may see 1,300 new cases in one day, and may see at least ≥1,000 new cases for 38 days.

Given that many residents are not adhering to physical distancing, it may not be surprising if the Philippines may see these ≥1,000 new cases per day for 38 days. According to a NEJM article by Guan et al (2020), approximately 5% of Wuhan patients needed to be cared for in ICU settings and 2.5% needed mechanical ventilator support. This may translate to the need for 3,765 ICU beds and 1,883 mechanical ventilators for the Philippines. With the current estimated 1,000 ICU beds in the country, the DOH and the National Government may need to increase our stock of ICU beds by at least another 2,800, and to significantly increase the number of available mechanical ventilators. Assistance maybe sought from countries who have improved case rates, for example, the consequential unused beds/ facilities from China would be one, and the testing capacity of South Korea for another, and others such as giving incentives to manufacturers and related industries to produce ventilators, ICU beds and other needed equipment.

Further, the DOH may consider ramping up local clinical trials and stockpiling enough antivirals, and even allow limited compassionate use of off-label use of potentially effective medicines being studied by the Chinese, Japanese, American, and French ministries of health.

Private industry and hospitals should be tapped to support COVID-19 referral hospitals for these projected needs.

Whole-of-Society approach on enhanced community quarantine of Luzon

We support the creation of the National Inter-Agency Taskforce on COVID-19. Essential to the whole-of-society approach is to enjoin all sectors of society toward a common outcome. Thus, in addition to the aforementioned recommendations, the following must be considered:

1. Local government units should play a vital role in the dissemination and implementation guidelines of community quarantine.
2. It is also recommended that each city or municipality covered by the community quarantine prepare a community-based facility for isolation for persons requiring isolation but do not require care in a health facility nor can be accommodated in a home fit for isolation.
3. Barangay health workforce should be mobilized to entice and ensure continuous participation in the enhanced community quarantines.
4. Identification of location, resources, training of personnel, as well as procedures for activating them should be done well in advance.
5. While saving lives is more important than saving the economy, financial and economic consequences of stakeholders should be considered comprehensively:
    a) Businesses, especially SMEs, in the food, drink, banking, and pharmacy sectors (among others considered essential in the current situation) will need guidance on how to adjust or temporarily suspend operations and implement physical distancing.
    b) Daily wage earners and the informal sector will have to be assured of financial safeguards that will ease any pressure for them to continue to work, and thus, ease crowding in checkpoints.
    c) Ensure that nobody will be left behind – all those who are affected must receive quality care as soon as they need it, and resources are available, especially for the elderly, the poor, and vulnerable groups.
    d) In this Public Health Emergency situation, testing should be made free for all, even for repeat testing for frontliners and their close contacts.
6. Safe and reliable transportation should be provided free for:
    a) for healthcare workers;

b) workers in other vital support sectors such as pharmacies, water refilling stations, emergency response units, banking sector, and the like; and

c) for all patients requiring treatment/ hospital care (e.g. emergencies, dialysis, chemotherapy, etc.) should be reiterated to the national and local government.

7. PhilHealth should create new benefit package for COVID-19 procedures, including procedures, medicines, and psychosocial support.

8. The National Government should capacitate local government units to engage and pay for temporary housing units for frontline workers, and for minor symptomatic COVID-19 patients.

9. Plans should be put in place for the eventual scaling up of testing to include all at risk asymptomatic residents so that future second and third waves of outbreaks would be prevented, as experienced in Hong Kong, China, and Taiwan.

10. Instill social accountability among the public by having contextualized and culturally sensitive campaign to comply with strict home quarantine, physical distancing, reporting and not propagating fake or unverified news.

Supporting and safeguarding our Human resources for health

As this pandemic is already a National Public Health Emergency, which is overwhelming the capacities of individual hospitals, the Department of Health central office MUST step in and provide for all frontlines, particularly healthcare workers and ancillary support staff, logistics staff and security personnel:

1. Adequate space for assigned tasks
2. Food and shelter
3. Complete PPE for each shift of work
4. Transport while they serve their respective communities.
5. Financial safeguards must be put in place to care for those they may leave behind in case of their unfortunate demise in the line of duty.
6. Extra hazard pay for frontliners.
7. Access to correct information, instruction, and training on infection prevention and control (IPC).
8. Instruction on the appropriate use, putting on, taking off, and disposal of personal protective equipment (PPE).
9. Safe and adequate living quarters and basic needs, especially when required to undergo isolation.

Specialty Societies

We fully support the active participation of the professional societies and associations that specialize on infectious diseases in providing guidance to the technical teams of government and the Inter-Agency Taskforce on emerging infections, specifically on clinical practice guidelines on the diagnosis and management of COVID-19.

Mental Health and Social Concerns

The discussion of community mental health is highly encouraged, particularly on the uncertainties that abound and the unfolding nature of the situation, which at the policy level, may be managed by communication, targeted at points that address "outrage" factors to help manage the emotions of people.

At present, there is increased clinically significant stress and anxiety among health workers, and the public. It is only a matter of time before this pandemic will infect someone in acute psychiatric condition, and a possible increase in domestic violence due to the inability of people to go out and earn income. Thus, the following can be considered:

1. Putting ICUs near psychiatric wards, or that frontliners should be capacitated with psychosocial care for patients.
2. ICUs should not completely disconnect patients from their relatives or loved ones. Social media access, and clear but true barricade maybe adopted in ICUs.
3. Further, telephone or virtual psychosocial counselling should be encouraged and allowed at this time. Allow Violence Against Women and Children (VAWC) services flexibility to comply with quarantine and physical distancing rules.
4. It has been noted that some listed PNP and military hotlines are not working, so that reporting of criminal and lawless incidents cannot be reported and thus, not recorded. Effort must be made to ensure all PNP and military hotlines are manned 24/7, and not allow calls to be unanswered. The Office of the President's 888 hotline came be used as a mechanism to police the PNP and Military hotlines.

Long term strategic plan

Consistent with the earlier UP Manila and NIH position statement on COVID-19 (04 February 2020), we reiterate our support for the creation of a whole-of-society, whole-of-government, prevention-focused, and proactive "Center of Excellence in Infectious Diseases" to quickly respond to, and even prevent future epidemics as a complement to vital service delivery work of, and as a means to safeguard the vital population health gains won by the Department of Health. This center will embrace three-pronged priorities of: Service, Research, and Training. It will put in center-stage an institution which can prepare to respond and provide the multispecialty and interdisciplinary expertise needed in general epidemic activities as well as extraordinary pandemic situations such as what we have right now.

References:

Bai Y, Yao L, Wei T, Tian F, Jin DY, Chen LJ and Wang MY. (2020). Presumed asymptomatic carrier transmission of COVID-19. JAMA. 21 February 2020. Doi: 10.1001/jama.2020.2565. Bennett JE, Dolin R, and Blaser MJ. (2020). Mandell, Douglas and Bennett's Principles and Practice of Infectious Diseases 9th Ed. Elsevier: 1600 John F. Kennedy Blvd.Ste 1600 Philadelphia, PA 19103-2899.

Center for Disease Control and Prevention. 2005. SARS: Community Containment Measures, Including Non-Hospital Isolation and Quarantine. Retrieved March 18, 2020 from https://www.cdc.gov/sars/guidance/d-quarantine/app3.html.

Center for Disease Control. (2020). Coronavirus disease (COVID-2019) situation reports. (Mach 20, 2020). Situation report 58. Accessed March 19, 2020. Retrieved from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/.

DOH Circular 2020-0049. Reiteration of the interim guidelines for 2019 novel coronavirus acute respiratory disease (2019-nCoV ARD) response in hospitals and other health facilities. Feng S, Shen C, Xia N, Song W, Fan MZ and Cowling BJ. (2020). Rational use of face masks in the COVID-19 pandemic. The Lancet.com. 20 March 2020. Doi: 10.1016/S2213-2600(20)30134-X.

Guan W, Ni Z, Hu Y, Liang W, Ou C, He J, et al. (2020). Clinical characteristics of coronavirus disease 2019 in China. N Engl J Med. 2020 Feb 28. Available from: https://www.nejm.org/doi/full/10.1056/NEJMoa2002032

Leung CC, Lam TH and Cheng KK. (2020). Mass masking in the COVID-19 epidemic: people need guidance. The Lancet.com. 03 March 2020. Doi: 10.1016/S0140-6736(20)30520-1.

Naria-Maritana MJ, Cagayan BSS, De Leon KNE, Cagayan MSFS, and Facun GMG. (2020). Knowledge and perspectives of Filipinos to COVID-19 during the Community Quarantine: A pilot survey. *Unpublished*.

Philippine Society for Microbiology and Infectious Diseases (PSMID). (2020). Interim Guidelines on the Clinical Management of Adult Patients with Suspected or Confirmed COVID-19 Infection. Retrieved from https://www.psmid.org/cpg-for-covid-19-ver-2- updated-as-of-march-26-2020/.

Treatment Action Group (TAG). (27 March 2020). Treatment Action Group Statement on the High Price of Cepheid's Xpert Test for COVID-19. Accessed 30 March 2020. Retrieved from https://www.treatmentactiongroup.org/statement/treatment-action-group-statement-on-the-high-price-of-cepheids-xpert-test-for-covid-19/.

WHO. (2009). Whole-of-Society Pandemic Readiness. Accessed 18 March 2020. Retrieved from https://www.who.int/publications-detail/whole-of-society-pandemic-readiness.

WHO. (2020). COVID 19 Outbreak: Rights, Roles, Responsibilities of Health workers,

Including Key Considerations for Occupational Safety and Health. Retrieved March 18, 2020 from https://www.who.int/docs/default-source/coronaviruse/who-rights-roles-respon-hw-covid-19.pdf?sfvrsn=bcabd401_0.

WHO. (2020). Principles of infection prevention and control during health care when novel coronavirus infection is suspected. https://www.who.int/publications-detail/infection- prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is- suspected.

WHO. (2020). Responding to Community Spread of COVID 19. Retrieved March 18, 2020 from https://www.who.int/docs/default-source/coronaviruse/20200307-responding-to-covid-19-communitytransmission-final.pdf.

Worldometer. Coronoavirus Cases. (2020 March 27). Accessed 237 March 2020. Available at https://www.worldometers.info/coronavirus/.

Yap JC, Ang HIY, Xuan SH, Tan JIP, Chen RF, Lewis F, Yang Q, Yap RKS, Ng BXY, and Tan HY. (2020 March 12). COVID-19 Science Report: Therapeutics. ScholarBank@NUS Repository. Retrieved from https://doi.org/10.25540/qqrk-bpcs.

Zou L, Ruan F, Huang M, Laing LJ, Huang HT, Hong ZS, Yu JX, Kang M, Song YC, Xia JY, Guo QF, Song T, He JF, Yen HL, Peiris M and Wu J. (2020). SARS-CoV-2 Viral Load in Upper Respiratory Specimens of Infected Patients. N Eng J Med, 382 (12), 1177-1179.

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