



Preparedness During Pandemics

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We are never fully prepared for the perfect approach during an infectious disease outbreak. Infectious diseases are mainly caused by microorganisms and every microorganism is different which will determine a different approach. However, panic and hectic must not lead to a lack of basic concepts in management during situations such as the outbreak of an infectious disease. There is knowledge outlined in public health and epidemiology based on previous experience of how to handle these situations. At the national level, preparedness for basic approaches to an infectious disease outbreak is assumed to be part of the National healthcare system. Well implemented basic public health concepts concerned with dealing during an infectious disease outbreak will allow for more room to keep an eye on the current situation. We now live in a time where a lot is possible thanks to technology. We must use these opportunities. Adjusting to the new standards and regulations will bring us closer to controlling the problem, even before a safe vaccination is available.

“
KEEP IN MIND THAT MICROORGANISMS MANUEVER IN A VERY ORGANIZED AND STRUCTURED WAY. IN OUR BATTLE AGAINST MICROORGANISMS, WE MUST MAKE SURE TO BE ORGANIZED AND STRUCTURED AS WELL.”

Background

These are bizarre times we are confronted with. The spread of COVID-19 has transformed lives worldwide. Its impact requires the necessary analysis where key information is gathered to make the right decisions now, but also to be prepared for the future. By knowing the capacity and risks in the population but also at institutional levels, it is possible to obtain an impression of the COVID-19 preparedness. Supporting documents and the expertise of international health organizations

such as the Pan American Health Organization (PAHO) and the World Health Organization (WHO) are always beneficial to support and guide the preparations and response. However, remember, populations differ, and each population has its determinants and measures to be taken into account. These are taken in the inventory where the capacities and risks are analyzed. The inventory must include information such as the national plan to mitigate and to manage during a possible outbreak; daily local test capacity; treatment capacity; COVID-19 preparedness in care institutions; quarantine possibilities, isolation capacity, and the capacity to respond in a social-economical crisis. During infectious disease outbreaks, intramural institutions where many people inhabit, have cluster outbreak potentials. In most cases, people who live in these institutions are care-dependent. They can be categorized as a high-risk population. An improper disease outbreak management in such an institution can result in a fatal end and cause a negative psychological impact on the population. In situations such as these, the psychological impact should be considered seriously. In addition to healthcare institutions, institutions enabling stay for a large number of people must also be prepared. These institutions refer to correction centers, centers for the homeless, center for addicts or victims of violence, refugees, and orphanages. All these institutions pose a risk of cluster outbreak and are a public health concern.

Preparedness needs to address COVID-19

It would be ideal if all knowledge and opportunities were integrated into one contextual plan and the coordination is centralized at the national level. Documenting, and communicating the plans, strategies, protocols makes it possible to review, evaluate these strategies, and adapt if necessary. This way it is possible to monitor the quality of care and decrease the chances of making mistakes. Monitoring the quality of care and ensuring uniform practice, continuity in non-COVID-care, and identification of additional needs in all areas of rural health care is indispensable.



“ NEGLECTING NON-COVID-CARE RESEMBLES A LACK OF COMMITMENT, ORGANIZATION, STRUCTURE, AND COMMUNICATION. ACUTE PATIENTS AND PATIENTS WITH CHRONIC DISEASES SUCH AS CANCER, NEPHROPATHIES, CARDIOVASCULAR DISEASE, CANNOT BE LEFT BEHIND DURING THIS OUTBREAK. ”

Capacity to tackle COVID-19

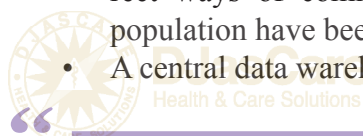
Responding to COVID-19 on a National level has two aspects; 1. Preventing an outbreak from breaching the national level of care capacity, and 2. Responding as efficiently and effectively as possible during the outbreak. The next four aspects deserve extra focus.

Aim

- Integrated strategic plan
- Avoid an unmanageable situation
- Detection
- Treat

Planning and coordination

- Plans, policies, frameworks, and guidelines have been written and deployed;
- There is a clear division of tasks and communication line with colleagues and also with the population;
- Sufficient resources are available for prevention and response. In case of scarcity, sources are made available and confirmed to qualify for the necessary supplies;
- Ethical and moral issues have been discussed; clear agreements have been made; and the correct ways of communicating these with the population have been considered;
- A central data warehouse is available.



“ CUTOFFS USED TO MAKE IMPORTANT DECISIONS MUST BE DISCUSSED, EVALUATED, APPROVED, DOCUMENTED, AND PROPERLY COMMUNICATED WITH PROFESSIONALS AND ALSO WITH THE POPULATION. ”

Describe triggers to:

- Escalate and deescalate;
- Groups that must undergo mandatory diagnostic testing;
- Triage strategies;
- Strengthening capacities.



“ TRIAGE STRATEGIES- WHEN VENTILATION CAPACITY BECOMES LIMITED, DOCTORS MUST DECIDE WHO WILL OR WILL NOT USE THE VENTILATION MACHINE. THIS MEANS, WHO MAY OR MAY NOT GET A CHANCE TO LIVE. ”

Prevention

- The population is involved, and information is conveyed through clear communication patterns;
- Media workers are committed and instructed;
- All preventive measures and guidelines for personal, organizational, and social commitment have been described and communicated.

Detection

- The epidemiology surveillance team is prepared and deployed;
- Laboratories are set up with sufficient diagnostic materials;
- There are sufficient trained personnel to take samples for diagnostics.

Response

- Professionals are prepared and deployed;
- Sufficient resources are available for both detection and treatment;
- Isolation capabilities and locations to treat COVID-19 patients are clearly identified and deployed;
- There are enough people and equipment to work in hospitals with COVID-19 patients at all stages of the disease, and the staff is well trained and prepared;
- The population as a whole is ready to respond to COVID-19.



“ **STRATEGIES MUST BE DESCRIBED IN THE CASE OF OUTBREAKS IN CARE FACILITIES WHERE NO QUARANTINE OR ISOLATION OPTIONS ARE AVAILABLE. THINK ABOUT GERIATRIC AND NURSING HOMES** ”

Risk identification

The aim should be to identify all possible risks that can jeopardize an adequate capacity in areas such as: care management; disease prevention; surveillance, rapid response, and case tracking; care sectors, clinical approach, infection control; important services and work continuity in health care and on a national level; social and economic aspects.

Responsibilities of operational leaders

The operational leader's task is to deploy and monitor the plan and activities. The operational team works in collaboration with different taskforces and must have sufficient knowledge and the capacity to measure capabilities and identify risks to intervene in cases where necessary. For example, all steps must be well defined, discussed, and documented in advance, to properly escalate and de-escalate if necessary, with measures and aim to ultimately protect the population. Guidelines must be clearly documented in collaboration with and communicated to the stakeholders. The operational preparedness team should act as a liaison between all stakeholders to work jointly on prevention, detection, and response. Also, the epidemiological division of the operational preparedness team could generate data and provide indicators for decision-making or changes in strategy. Documentation and communication are essential.

Population response and preparedness

There is no such thing that the population does not want to listen and follow orders. A population consists of many different people with their own knowledge and experiences. In situations like this, we refer to a population in fear, stress, despair, lack of knowledge, with many questions. The task of Public Health must be clear and well defined in aspects where rules must be enforced and in aspects where adjustments must be made in the way how knowledge is transferred. If the

current way to transferring knowledge does not reach the public, it is the task of public health to adapt its way of communicating.

Panic

Most of the population does not know what to expect and it is an area where most people do not have extensive knowledge. Nowadays the easy accessibility to social media assets can create unnecessary drama, following by stress and fear. Everyone tries their best to gain knowledge and to know as much as possible about the subject, but several factors can play a role in making this process more difficult.

Wrong information

A lot of information is available on the media and social media from reliable and unreliable sources. People who are unfamiliar in the field cannot easily distinguish between reliable and non-reliable sources. Health care professionals and non-professionals are coming forward to promote medications and strategies because there is no definite solution yet. They do not mean bad but introducing medications or any other treatment policies goes further than just clinical practice. It requires extensive medical research and broad quality control revision. Another aspect is that some populations track national reliable sources, but these sometimes lack knowledge of how to convey the information. Public health authorities must make sure to raise awareness in following reliable sources and make sure to prevent or block unreliable sources.

Trust

The aforementioned and the about to mention can cause panic and skepticism. The fact is that the pandemic still exists, many measures are taken, and mortality rates are still high. Everybody and even professionals want to help with everything possible, to quickly solve the problem. However, the organization, structure, approach, and monitor remain a challenge in many countries. Also, not everyone works according to evidence-based methods.



“ **CHLOROQUINE FOR EXAMPLE CAN CAUSE OXIDATIVE STRESS AND HEMOLYSIS IN G6PD DEFICIENCY PATIENTS. THIS IS A SERIOUS MEDICAL CONDITION** ”

Sometimes their knowledge can be contradictory with indications from reliable, evidence-based sources. In some cases, advice is given for the use of certain natural and also medical products which are more detrimental than helpful. This can also cause despair.

The role of the media

Media has a crucial role during an infectious disease outbreak. The population must be informed properly and responsibly. The media must enable the path for public health to have all the sources available to reach and guide the population. Public health must instruct media workers with resources on essential knowledge, information, and rules to inform a population properly during a health care crisis. However, media workers must have enough knowledge and expertise to ask critical questions. News and information must be based on reliable and evidence-based knowledge, a scaled dosage of information, with all transparency, taking into account the privacy of people and professional confidentiality, formulated to inform, train, and instruct, but aimed to avoid panic.

“ **MEDIA WORKERS SHOULD NOT BE RIDICULED WHEN THEY ASK QUESTIONS ABOUT TOPICS THAT HAS ALREADY BEEN EXPLAINED. ALWAYS ASSUME THAT THE EXPLANATION MAY NOT HAVE BEEN CLEAR ENOUGH. AND WHILE A MAJORITY THINKS THE QUESTION IS STUPID, IN THAT SAME MAJORITY THERE WILL ALWAYS BE A PERCENTAGE WHO THOUGHT THEY UNDERSTOOD, ANOTHER PERCENTAGE WHO PRETEND TO UNDERSTAND, AND A GROUP OF THE POPULATION WHO PROBABLY HAVE THE SAME QUESTION.** ”

Prevention methods and the use of masks

Probabilities have been drawn up to prevent the disease. The correct application of these must be promoted but also monitored. Densely populated situation, closed environment, and places with poor ventilation must be avoided. People with symptoms or who have been in contact with COVID-19 patients must stay in home quarantine for 10 to 14 days. Masks are propagated worldwide, and, in some countries, it is mandatory to use them in public settings. Not everyone is comfortable using face masks as it can be very suffocating, especially in hot countries or in people with breathing difficulties which is understandable. However, proper use can help in preventing the spread of a deadly disease.

“ **PUBLIC HEALTH MUST EDUCATE AND PROMOTE ENVIRONMENTAL CONSCIOUSNESS. FACEMASKS SHOULD NOT BE THROWN ON THE STREETS NOR IN NATURE.** ”

All social activities must be cancelled or postponed. It is not recommended to attend social activities in these times. Only basic activities such as: getting groceries from the supermarket, drugstores, doctor's appointment in urgent cases etc. Possibilities must be enabled to do as much as possible online to avoid exposure.

“ **THERE IS NO NEED TO USE A MASK WHEN YOU ARE ALONE AT HOME, IN YOUR CAR, ALONE IN A VENTILATED ENVIRONMENT OR MAINTAINING 2 METERS DISTANCE IN THE OUTDOORS.** ”

“ **WITH REGARD TO THE FOLLOWING QUESTION: WHAT ABOUT USING A MASK AT THE GYM, CHOIR PRACTICE, PARTIES, CHURCH, AND OTHER SOCIAL ACTIVITIES? THE ANSWER IS SIMPLE! THOSE ACTIVITIES ARE NOT SUPPOSED TO BE TAKEN PLACE. THEY SHOULD BE CANCELLED OR POSTPONED.** ”





Mental health

Mental health must be considered seriously during these times. A sudden threat can cause panic caused by fear to become sick or die. In addition to panic, each individual copes differently with the changes and adaptations the world is confronted with. The person experiencing panic or others in this person’s environment can become victims of unmanageable stress. The word empathy must be understood and brought into practice. Understanding and showing respect to fellow humans can help reduce stress in the population. Expressing feelings with a person of trust is very important. A population must be encouraged not to be ashamed to search for professional help in case this is needed. Exercise can improve mental health. Not going to the GYM or group exercise activities does not mean you do not have to exercise. Crowded places must be avoided and opportunities to exercise in the open air must be enabled and promoted. Activities to process difficult thoughts or emotional issues are also a public health concern.

“ **YOU MAY ACHIEVE MORE IN PUBLIC HEALTH WITH AN OPTIMAL INPUT AND COMMITMENT BY PUBLIC HEALTH’S MAIN CHAIN PARTNER, THE POPULATION** ”

Final words

Achieving an optimal preparedness is essential. COVID-19 can have a poor prognosis in people older than 60 years and people with co-morbidity such as hypertension, diabetes mellitus, immunocompromised, lung diseases etc. The aging population, and also the prevalence of non-communicable chronic diseases is high worldwide. Let us overcome these difficult times by staying focused, committed, positive and work united towards success. This is possible with organization and structure, discipline and good communication. Finally, we live in the age of technology that makes many possibilities available. The best benefits should come from being creative and being open to adapt.

Keep the following quote in mind:

“It is not the strongest of the species that survives, nor the most intelligent, it is the one most adaptable to change.”

~Charles Darwin

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