COVID-19

NOTES ON COMMUNITY QUARANTINE

AN ICMHD HEALTH POLICY CONTRIBUTION

International Centre for Migration, Health and Development

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COVID-19: Notes on Community Quarantine

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INTRODUCTION

On March 11 2020, the COVID-19 outbreak was recognized by WHO as having become a pandemic. The rate of spread of the novel coronavirus has taken many countries by surprise, and preventing and containing any further spread of the virus has now become a major public health priority for countries everywhere. Some countries, such as China, Italy and Spain have seen fit to place communities, towns, cities and/or entire regions, that are estimated to have become foci of the disease, under quarantine. Quarantining communities is not a new strategy in epidemic situations, but it is never a straightforward or easy decision to implement and maintain. At this moment, moreover, the value of community quarantine in delaying the spread of coronavirus, has not been established. These Notes are thus in no way meant to promote the implementation of community quarantine. They have been prepared simply as an aid for national or local authorities that may be considering the introduction of such a measure, and seek to help them by highlighting some of the issues that will need to be taken into account.

COVID-19

COVID-19 is the name that has been given to a new severe acute respiratory syndrome caused by coronavirus 2 (SARS-CoV-2). At the time of preparing these Notes, no vaccine or cure for COVID-19 has yet become available. The coronavirus that causes COVID-19 is shed through droplets that are expelled when people who are already infected with the virus cough and/or sneeze. If non-infected people come into direct contact with these droplets, they are at risk of acquiring the infection. It is for this reason that medical scientists are calling on people to (a) maintain a “safe” social distance between each other, (b) not touch surfaces that droplets may have fallen on and that not then been disinfected, (c) wash hands frequently with soap and water or alcohol-based hand disinfectant, (d) cover nose and mouth when coughing or sneezing. People who may have been infected but are not experiencing or showing symptoms of disease may nevertheless have the capacity to spread the coronavirus.

QUARANTINE

Quarantine is a public health measure designed to reduce the potential for the spread of diseases that are considered to be of major public health concern, and for which vaccines and treatments are not readily available. The purpose of quarantine is to create a temporary social and physical distance between people who are estimated to have been at high risk of infection, and the rest of the public who are estimated to be still at less risk of having been exposed to the virus. Quarantine is typically used to isolate individuals who are, or who are suspected, of having been infected. Placing a community under quarantine, however, is a more expansive and ambitious approach, and is intended to isolate entire communities in which a high number of cases of infection has been confirmed. Quarantining entire communities is not a new strategy and over the past decade, it has been used in response to the SARS epidemic in Canada in 2002, and to Ebola in Guinea, Liberia and Sierra Leone in 2014-2016. In the current COVID-19 crisis, it has become a central part of the response by China, Italy and Spain, and it may go on to be seen as an appropriate response by other countries as well. Quarantining communities is being proposed as a way of delaying (although not stopping) the spread of the virus that causes COVID-19, and in doing so, reducing the load on hospitals.

LIMITS OF QUARANTINE

Community quarantine does not, in itself, offer a cure for people already infected with the coronavirus or ill with COVID-19. Nor does community quarantine guarantee that there will not be a continued spread of the virus within the community placed under quarantine. Only continued intensified prevention in the community will do that. Neither does quarantining one or more communities or regions mean that other parts of a country will not go on to experience an increase in the number of new infections. The limits of what community quarantine can achieve must therefore be understood, and it must always be seen as part of a larger national strategy designed to prevent the spread of COVID-19 infection. Community quarantine should therefore never be proposed or seen as a stand-alone measure.

THE COMMUNITY UNDER QUARANTINE

People living in a community placed under quarantine are confined to an area in which the COVID-19 virus is already present and is being spread. Because of this, everything must be done to intensify prevention measures in that community, as well as elsewhere in the country. Screening/testing and active clinical diagnosis must continue to be emphasized and health care for those who are already infected must continue to be given high priority. In addition to public health and ethical reasons, there are also practical and logistical reasons for doing so. The first of these is that people placed under quarantine who feel they and their health are being neglected may feel they have been “written off”. If this occurs, they may become less willing to comply with quarantine measures and the purpose and efficacy of community quarantine will be quickly eroded. Quarantine is always most successful when people understand the reasons for it, see the health benefits of it, and accept to participate in it actively and voluntarily.

DURATION OF QUARANTINE

How long community quarantine lasts should be determined by national authorities working in collaboration with epidemiologists, virologists and other public health experts. The decision should be based on real-time evidence from within both the community that is under quarantine and the broader public outside the quarantined area. The incubation period for COVID-19 is currently estimated to be around 14 days. At all times, people in the community under quarantine must be kept factually and sensitively informed of decisions and projections concerning duration.

PLACING COMMUNITIES UNDER QUARANTINE

Deciding whether and when to introduce community quarantine should always be based on solid epidemiologic evidence and on advice from scientists and public health experts. Care should be taken not to promote community quarantine unless there are sound epidemiologic reasons for doing so. Decisions to quarantine a community should always and only be guided by the principle of “greater public health good” and not by fear, rumour, or other non-medical considerations.

- consult epidemiologists and other experts
- estimate the pattern and speed of virus spread
- assess what alternatives there are to community quarantine
- assess the estimated value add of community quarantine
- consider the social, economic and logistical implications
- estimate what compliance rate can be expected
- estimate how long quarantine can/should be sustained

DECIDING WHICH COMMUNITIES TO QUARANTINE

Deciding which community to place under quarantine and how many people to include, must be calculated using real-time infection/disease statistics coming from within the country in general, as well as from the geographic area or community of concern. It will be important to pay special attention to the social as well as the geographic pattern of infection/disease and the speed with which it can be documented to be spreading.

- look for evidence of clustering of confirmed coronavirus
- look for evidence of clustering of confirmed COVID-19 cases
- carefully demarcate where the clustering is occurring
- define the geo-social parameters of the clustering
- estimate the population density of the area/community
- estimate the healthcare capacity within the community
- estimate likely healthcare needs of the community
- assess if and how these healthcare needs can be met
- estimate the community's receptivity of quarantine
- estimate the likelihood of compliance with quarantine

COMMUNITY DIVERSITY

Communities, villages, towns, cities and regions that are placed under quarantine are likely to include a diverse mix of people, including children, women, men, adolescents, elderly people, people with disabilities and chronic illnesses. They are also likely to include people of different social, ethnic, cultural, religious and linguistic backgrounds. All these characteristics need to be taken into account when planning and managing quarantine.

- map the community's social, demographic, cultural profile
- map any clustering by age, language, ethnicity, social class
- map main forms of housing, apartments, homes for the elderly
- map elderly people living alone and in residential facilities
- map schools, childcare facilities, creches, orphanages, etc.
- plan for any special needs different social groups may have
- plan for any special needs different geo-areas may have
- plan how best to reach them all with health/social services
- always keep in mind social and demographic heterogeneity

PUBLIC INFORMATION

Community quarantine will be a new concept for many people and can be the cause of anxiety and fear. Fear can distort social responses and reduce the capacity to respond rationally. As the German proverb says, “fear makes the wolf bigger than he is”. Well prepared and delivered public information about the epidemic and the purpose of quarantine is essential. It will help to generate better adherence by the public in question. In the absence of active participation by the community, quarantine will not be as effective as it should be in reducing the risk of virus spread.

- explain what is COVID-19 and how it is spread
- explain why community quarantine is considered necessary
- explain it is a temporary measure and how long it will last
- explain what quarantine will involve and what it will achieve
- explain when it will start and how to prepare for it at home
- explain that infection prevention measures must continue
- explain that healthcare and social services will continue
- ensure all messages are factual and do NOT cause panic
- ensure messages are in all locally relevant languages
- ensure messages are in easy-to-understand language
- ensure messages are provided in different media formats
- counter all fake news and misinformation
- ensure the media is “on-board” as colleagues/allies
- engage them in explaining the epidemic and quarantine
- provide media with regular briefings and up-dates
- provide carefully prepared texts they can adapt and use
- use messages to generate solidarity and give examples.

WORKING WITH COMMUNITY LEADERS

Some people may not have a good understanding of the disease, how the virus is transmitted, the rationale for community quarantine, and the need for intensified prevention. Some may be initially resistant to it. It will be important to involve people who normally play a leadership role in the community and who have credibility in the eyes of different segments of the community in conveying new information.

- engage well known national and local public figures
- work with religious leaders, sports people, labour leaders, etc.
- brief them all carefully and frequently
- provide them all with factual messages they can use
- ensure they all say the same thing about the epidemic
- sensitize them to look for and counter fake news and rumour
- encourage them to look for and counter stigma/discrimination
- keep same opinion leaders involved for a sense of continuity
- organize regular meetings to keep them updated and involved.

HEALTH AND SOCIAL SERVICES

In any community under quarantine, a proportion of the population will have pre-existing and new non-COVID-19 related health problems and needs, as well as COVID-19 specific problems. In planning community quarantine, it will be important to know exactly what health/social services are already available and how they can be expected to continue providing care and support without or with additional resouces.

- map/coordinate private and public hospitals and clinics
- map all healthcare facilities with beds and ICU units
- map availability of special equipment, such as ventilators and PPE
- identify possible sources of additional equipment
- map facilities that could be adapted for isolation of patients
- map all general practice offices and number of personnel
- map pharmacies, physiotherapy and psychology offices
- map social services offices and personnel
- map location and telephone numbers of all health-related staff
- list health and social services staff by speciality/availability
- prepare to recruit and train additional paramedical personnel
- prepare to recruit and train additional social services personnel
- list recently retired medical and social services personnel
- prepare to bring them “up to speed” and engaged if needed
- assess/map existing coronavirus screening/testing capacity
- assess/map existing analytic laboratory capacity
- prepare to complement all the above wherever necessary
- prepare for healthcare staff becoming infected and ill
- prepare contingency plans for dealing with their absence
- prepare to procure/ask for new human and material help.

HEALTH OF PEOPLE UNDER QUARANTINE

People placed under community quarantine have, and must be seen as having, the same rights to quality healthcare and social services as the larger non-quarantined public. Keeping people placed under quarantine as healthy as possible is not only ethical but also sound public health. It will help reduce the eventual need for additional health care. It will also contribute to reducing the duration of quarantine and facilitate the eventual re-entry of people into productive normal lives once the situation improves.

- ensure continued COVID-19 prevention messaging
- ensure continued promotion/provision of screening/testing
- map known community pre-quarantine health profile
- map chronic non-communicable diseases, such as diabetes, cardiovascular diseases, and mental health problems
- map people with dissabilities and limited mobility
- ensure continued care for people already on treatment

- create COVID-19 information service lines
- recruit and carefully train personnel to staff these lines
- ensure advice and answers are factual and prompt
- ensure questions are always dealt with sensitively
- avoid and explain how to avoid fake news
- use the media to explain how helplines can/should be used
- map location of people who call in with symptoms
- prepare to follow up including with home visits
- avoid burn-out in information staff and limit hours on the job.

INFORMATION LINES

Many people will have questions about the disease and quarantine. People can easily become concerned, frustrated, angry and non-participatory if questions are not readily answered or if they are felt to be answered late or insensitively.

- estimate what medical supplies are/will be needed for this
- estimate what non-COVID-19 needs are likely to emerge
- assess what else will be needed and where help can come
- plan for asymptomatic people becoming symptomatic
- prepare for ill people requiring specialized and scarce care
- prepare for new health events such as delivery, cardiovascular diases, injuries, etc.
- prepare for mental health needs/emergencies
- prepare for domiciliary care and assess how best to deliver it.

COUNSELLING AND TESTING

Communities placed under quarantine will include some people who are already infected with the coronavirus. Other will become infected. Identifying and documenting them as quickly as possible is essential if they are to be cared for, and if other people in the community are to be protected. Some people and/or groups may be hesitant with respect to testing. Some may be affraid that their results will not be treated confidentially. Counselling and testing is essential, and must be made available for those who need or want it.

- ensure that counselling is part of all screening/testing for COVID-19
- recruit and train staff for counselling
- strengthen existing COVID-19 screening/testing capacity
- explain where COVID-19 screening/testing is available
- use media and social media to promote screening/testing
- explain what signs of possible COVID-19 infection to look for.

ISOLATION IN QUARANTINED AREAS

In any community placed under quarantine, some people who have been infected will become ill and will need to be hospitalised/isolated. Isolating people with COVID-19 is good practice for the patient, and sound practice for family, friends and neighbours. It nevertheless has implications for hospital based isolation, ICU beds, and specialized equipment.

- map local hospitals and clinics with isolation/ICU capacity
- map other facilities that could be adapted for isolation
- ensure relevant isolation and ICU equipment is available
- ensure staff trained in isolation techniques are available
- plan for any further equipment procurement
- plan for further staff allocation/recruitment and training
- ensure continuing supply of personnal protective materials
- identify isolation options outside the quarantined community
- establish referral links with external hospital options
- plan for possible movement of patients to these facilities
- put in place a safe patient movement system (PMS)
- train PMS personnel, including drivers in safety methods
- ensure all PMS personnel are well equipped with PPE.

HEALTH AND WELLBEING OF HEALTHCARE PERSONNEL

Maintaining the health and wellbeing of healthcare personnel is essential for practical and ethical reasons. Healthcare personnel must be healthy in order to function, and they must have and be seen to have the same right to health as everyone else. Placing communities under quarantine will place added time and practice loads on healthcare staff. It can also place additional psychological pressure on them.

- ensure all healthcare staff and families have access to testing
- ensure healthcare staff have appropriate PPE
- ensure healthcare staff adhere to infection control practices
- ensure “reasonable” working hours, especially in hospitals
- train healthcare staff to look for burn-out signs in themselves
- encourage staff to be alert to signs of burn-out in colleagues
- encourage staff report signs of burn-out immediately
- provide staff with psychological support and counselling
- organize regular briefings and de-briefings of staff
- explore optional ways of supporting healthcare personnel
- recruit and up-date recently retired medical personnel
- provide on-the-job refresher training for all personnel
- ensure infected and ill healthcare personnel are well cared for.

MONITORING AND REPORTING

Managing epidemics and quarantine calls for constant, consistent and quality monitoring, describing and up-dating information on the situation under quarantine as well as in the public at large. In the absence of quality and regularly gathered data it will not be possible to determine if and how trends in infection and health outcomes are changing, and if interventions are working.

- quickly establish a local COVID-19 data system
- decide with health experts what data are essential
- ensure screening, reporting and case definition protocols
- ensure all case management follows standard protocols
- make sure all healthcare staff are aware of protocols
- in principle count, record, map and centralize data on:
  - number of people already screened/tested
  - number of people being screened/tested per day
  - number of people diagnosed with COVID-19
  - number of diagnosed cases per day and week
  - number of people under treatment
  - outcomes of people being treated, including compliance
  - number of people discharged
  - problems encountered (staffing, equipment)
- prepare regular reports on findings and discuss findings.

SPECIAL HEALTH AND HEALTH-RELATED NEEDS

Placing communities under quarantine in response to the coronavirus epidemic is a complex process. It will call for comprehensive planning and for a wide range of public health challenges and health-related service areas to be addressed. Some of these areas will nevertheless deserve priority if quarantine is to be sustained, and if the health and wellbeing of quarantined people it is to be maintained and wherever possible, improved. This section of these NOTES takes up a number of these areas.

PSYCHOSOCIAL HEALTH AND WELLBEING

Community quarantine can be a difficult experience for the people who are directly and indirectly involved. Those who are directly involved are the ones in the social and geographic area under quarantine. The people who can be expected to be indirectly involved include immediate family, relatives and close friends who fall outside the quarantined area but who will vicariously live the quarantine. For those in the area under quarantine, quarantine can quickly become claustrophobic and tense. If not well managed, it can give people the sensation of having been cut off and abandoned by the "outside world". While this is rarely the case, perceptions of being abandoned can become destabilizing and contribute to a perceived loss of control and self-esteem. Feelings such as these can push people to lose interest in looking after their health as well actively participating in the quarantine and the fight against the virus. Anger and mistrust of government and frontline workers who are trying to respond to the epidemic is another possible outcome that must be avoided, as is the sense of chronic boredom.

- make sure people understand all quarantine decisions
- make it clear that quarantine is temporary
- present "participation" as an act for the greater public good
- ensure easy communication with family and "outside world"
- ensure people have regular access to radio, TV, Wi-Fi etc.
- look out for people living alone and people with disabilities
- look out for people with pre-quarantine mental health needs
- ensure continuity of care, medication, and confidentiality
- look out for new mental health needs and respond promptly
- be ready to develop mobile units and an out-reach capacity
- identify specialized mental health care and hospital options
- be ready to provide counselling and train for peer-counselling
- help avoid discrimination/stigma around infection or ethnicity
- provide advice on coping/stress management techniques
- look out for people with disabilities impairing independence
- provide counselling to first-responders and front-line health staff
- ensure culturally sensitive psychosocial support in bereavement.

FOOD AND NUTRITION

Sound food and nutrition is essential and must always have high priority when planning community quarantine. In addition to nutrition, food can be an important symbol of care, support and security. Regular access to foods of custom is always a comfort for people.

- assess what foods people in quarantine are used to/prefer
- assess where these foods can be had in bulk
- set up procurement systems and financing mechanisms
- work with nutrition specialists to create balanced diets
- ensure regular bulk food delivery into community
- ensure safe and quality food
- assess and strengthen food storage facilities if necessary
- assess food retail outlet options in the community
- involve the private sector in food storage/distribution
- create new food distribution systems if necessary
- create domiciliary or neighbourhood delivery options
- estimate special food needs of pregnant women, babies and young infants, elderly, religious groups
- estimate quantities of different foods to meet all needs
- create monitoring system of food availability and use.

WATER AND SANITATION

In any community quarantine situation, clean water availability and maintenance of safe sanitation in all parts of the community is likely to become a concern and should be planned for.

- map water supply in all parts of the community
- estimate if, how, and where the demand could increase
- estimate existing capacity to be able to cope
- map all sanitation systems, especially around hospitals
- estimate if any additional measures may need to be taken
- organize domiciliary delivery of water where necessary
- organize to meet needs of special groups, such as the elderly
- monitor use of the water and sanitation system.

PUBLIC HYGIENE

Maintaining quality environmental and public hygiene is essential in any community quarantine setting. Visible quality public hygiene together with the measures to ensure it are often seen as evidence of continuity and of commitment by local authorities. It can be a positive influence on public morale.

- provide regular media messaging on public hygiene
- link public hygiene to prevention of infection
- ensure supplies of disinfectants and cleaning materials
- ensure routine disinfection of public areas and surfaces
- organize safe and frequent efficient removal of all trash
- organize safe rapid disposal of discarded medical waste, such as used masks, gloves, swabs, etc.
- ensure that clean-up of medical waste is done by health sector
- follow WHO recommendations on disposal of medical waste
- recruit local people, if necessary, for public clean-up
- train them for virus avoidance and equip them accordingly
- promote community participation in public hygiene.

CHILDREN

Most quarantine situations will include children of different ages. While they may be at low risk of COVID-19-related complications, they are potential carriers of infection to parents and others at home if/when they become infected. Interrupted schooling can be destabilizing and the fact that children may be too young to understand the epidemic and what is occurring around them should be seen as a priority issue.

- support families as they try to organize child care at home
- help parents avert confusion in the daily life of children
- encourage/help parents to maintain regularity in child life
- help parents to ensure continuity of “education” at home
- help parents to explain quarantine is time-limited
- continue to explain the importance of handwashing and hygiene
- encourage/help parents to be alert to symptoms of infection
- encourage/help parents not to over-dramatize infection
- make use of phones, tablets used by children in messaging
- provide online games/stories explaining quarantine
- ensure children get regular physical and mental exercise
- make sure children eat and drink well and regularly
- recognize that adolescents have special bio-social needs
- organize online education and social activities for them
- remind to use language geared to different age levels.

ELDERLY PEOPLE AND PEOPLE WITH DISABILITIES

Elderly people and people living with disabilities are easily overlooked in the context of community quarantine and are at risk of experiencing serious psychosocial challenges related to their personal and social condition as well as any health problems they may develop. This is especially in the case of people living alone. For a mix of biological and social reasons, elderly people and those with disabilities are also at risk of having poor health outcomes if infected with COVID-19 coronavirus.

- map/enumerate elderly people and people with disabilities
- encourage routine medical/nursing follow up
- ensure continued care for people already on any treatment
- encourage friends/neighbours to look-in on elderly people
- remind them to take virus precautions in looking in on them
- encourage social workers and volunteers to visit them
- monitor/report on their physical and psychosocial health
- monitor/report on their medication situation and follow up
- organize domiciliary delivery of food, medicines, etc.
- monitor/report their personal capacity to manage

MIGRANTS AND REFUGEES

Most countries have communities of migrants and refugees who come from different parts of the world, cultural and linguistic backgrounds. Their entitlement and access to health and social services may vary and for a variety of reasons, their geographic whereabouts in the community and their health conditions may not be well recognized or understood. Nor may much be known about how they see health protection and to what extent they are able to access and use information about COVID-19. If they are living in crowded conditions, which is often the case, they are especially likely to be at risk of infection.

- map/enumerate whatever is known about migrants/refugees
- map where they live and what is known about their health
- map their cultural/linguistic backgrounds and legal status
- assess what is known about their access/use of healthcare
- develop prevention messages in relevant languages
- identify their community leaders and ask them to help
- work with any NGOs that are already linked to them
- identify and use innovative ways of reaching hem
- ensure healthcare/social services staff reach out to them
- ensure they have good access to screening/testing services
- ensure they know how, and can, access healthcare services
- provide, where possible, cultural mediators and interpreters
- maintain confidentiality of migrant names and addresses
- monitor/report on their situation

PHYSICAL ACTIVITY

Quarantine does not mean that people have to be immobile. On the contrary exercise will become an even more essential part of staying fit and psychologically alert. This is true for people of all ages, and within areas under quarantine simple, home-based exercises should always be promoted for people of all ages.

- assess what, if any, outdoor areas are available for exercise
- develop optional exercise programs and instructions
- disseminate these programs using media and social media
- encourage health/social services staff to promote exercise
- help elderly and people with disabilities to exercise
- encourage/organize exercise among children of all ages
- use exercise to give regularity of daily life.

MANAGING DEATH

During the period of community quarantine there will be deaths from COVID-19 as well as from other causes. All of them will have to be managed in accordance with infectious disease specifications outlined by national and local health authorities. In most if not all instances, funeral services that are likely to attract large congregations may not be possible, and some religion/faith and culture-based ceremonies may not be feasible. Nor may it be possible for people to travel to funerals outside the quarantined area, and for the same reason, repatriation of bodies to other parts of the country or to other countries may not be possible either.

- plan for excess deaths and implications for autopsy/burial
- provide clear protocols on handling of COVID-19 bodies
- engage representatives of different faiths to discuss options
- explain what the regulations are and what will be possible
- explore options including preservation of bodies until later
- engage with all faith leaders to develop counselling options
- ensure safe and dignified burial for all dead bodies
- explore options for eventual repatriation of bodies if desired
- review legalities in body disposal and movement.

IN SUMMARY

Decisions to place entire communities under quarantine should never be taken lightly. The value of placing communities under quarantine has not yet been established, although logically it can be assumed to delay the spread of the coronavirus. At the same time, it may place new and additional burdens on people, local health/social services and the personnel staffing them. Much will inevitably depend on the community's size and socio-demographic profile, but in general quarantine can be expected to be complicated and require out-of-the-box thinking and flexible planning. All sectors will need to work together under the leadership and coordination of the health sector in confronting the COVID-19 challenge.

- coordinate with all ministries at central/regional levels
- coordinate with WHO and other relevant UN agencies
- share plans and updates with those who can assist
- plan short and medium term, think long term
- think-out-of-the-box and recruit "problem-solvers"
- be flexible at all times and plan according to evidence
- fight fake news, rumours and incitement
- hope for the best, plan for the worst
- plan and talk of "all for one and one for all".