CCCSL: Glossary of Codes

**Amélie Desvars-Larrive**

University of Veterinary Medicine Vienna, Austria / Complexity Science Hub Vienna, Austria

For any comment or suggestion: desvars@csh.ac.at

# Case identification, contact tracing and related measures

Measures aiming at identifying cases (testing, surveillance), tracing the contacts (i.e. identification and follow-up of persons who may have come into contact with an infected person (World Health Organization 2019)), implementing isolation for cases and quarantine for contacts and suspected cases (including tracking).

## Activate case notification

Notification of cases and/or data related to cases become mandatory.

### Covid-19 as a notifiable disease

Covid-19 become a notifiable disease, i.e. a disease that upon detection is required to be reported to public health authorities.

### Mandatory report of test results by laboratories

Laboratories must provide data on number of Covid-19 tests performed.

### Speed notification

The government asks to decrease time between suspicion and notification.

## Airport health check

Health screening of air passengers for Covid-19 infection at their arrival in and/or departure from airports. The screening can be performed through temperature screening, medical examination, questionnaire, etc.

### Health certificate requested at airport

A medical certificate provided by a healthcare professional, attesting a person's good health, is requested for entering or leaving a country by air.

### Health questionnaire in the plane or at the airport

Screening questions in order to detect medical symptoms in travellers or history of travel to infected area.

### Health screening at the airport

Used when “temperature screening” is not explicitly mentioned. Symptom screening of travellers to detect symptoms of Covid-19 infection at their arrival in and/or departure from border crossings and ports.

### Specific health channel for travellers

Implementation of a specific reception for travellers of “at risk flights” at the airport, with specific procedures for diagnosis, health check, questionnaire, or installation of a tracking app on phones. In some case, the structure of the channel enables to manage health emergencies.

### Temperature screening at airport

Control of the body temperature to identify travellers with fever.

### Test travellers with fever or symptoms

Travelers showing respiratory symptoms and/or fever are tested for Covid-19

## Border health check

### Health certificate requested to enter the country

A medical certificate provided by a healthcare professional, attesting a person's good health, is requested for entering or leaving a country by land or maritime way.

### Health questionnaire at the border

Screening questions in order to detect medical symptoms in travellers or history of travel to infected area.

### Health screening at the border

Used when “temperature screening” is not explicitly mentioned. Symptom screening of travellers to detect symptoms of Covid-19 infection at their arrival in and/or departure from the country.

### Temperature screening at the border

Control of the body temperature to identify travellers with fever.

#### Temperature screening at ports

The temperature screening is implemented for maritime travellers at port entries.

### Test at the border

A Covid-19 test is performed at the border before entry in the country.

## Enhance detection system

The method of detection and/or the definition of who have to be tested and/or the testing strategy change, which enables to detect more cases.

### Broaden definition / special definition

Change in the definition of cases, suspected cases or contacts.

### Extend test criteria

Change in the definition of who must be tested, therefore more people are tested.

#### Provide free testing

The government offer a free Covid-19 test to detect infection in citizens who wish it.

### Health evaluation of visitors before access to specific institutions

Visitors of social, healthcare and public and semi-public (restaurants, hotels, post offices) institutions have to undergo a medical check (search for symptoms, temperature screening) before entering the institutions.

### Targeted testing

Some specific people have to be tested because they are in contact with many people and/or are more exposed than in average in the population (e.g. frontline workers).

### Test contact or at risk of contact persons

Persons that have been or may have been in contact with a case or that have travelled in high-risk (infected) area are tested for Covid-19.

## Isolation of cases

Separation or confinement of a person who has or is suspected of being infected by Covid-19, to prevent further infections.

#### Asymptomatic carriers

Asymptomatic carriers are isolated (mandatory).

#### Mandatory

The isolation of cases is mandatory.

## Public transport health check

Medical screening (including temperature screening) before accessing public transports (train, busses, etc.).

### Temperature screening to access public transports

## Quarantine

Imposed separation or restriction of movement of persons who are exposed, who may or may not be infected but are not ill, and who may become infectious to others (World Health Organization 2019).

### Contact persons (Quarantine of)

Separation or restriction of the movement of persons who may have encountered an infected person.

### Incoming residents (Quarantine of)

Separation or restriction of the movement of persons entering the country and who live in the country permanently or on a long-term basis.

### Incoming travellers (Quarantine of)

Separation or restriction of the movement of persons entering the country (tourists, nationals, foreign nationals…)

### Incomings from high-risk areas (Quarantine of)

Separation or restriction of the movement of persons coming from high-risk (infected) areas, as defined by the government.

### Nationals coming from high-risk areas (Quarantine of)

Separation or restriction of the movement of nationals coming from high-risk (infected) areas, as defined by the government.

### Suspected cases (Quarantine of)

Separation or restriction of the movement of persons who are suspected to be infected with Covid-19.

## Restricted testing

The number of tests is limited to a specific category of persons/patients (due to shortage of test or insufficient laboratory facilities or workforce).

### Patients with need of hospital care and healthcare staff

Only patients whose health requires staying in medical institutions and healthcare professionals are tested.

### Patients with symptoms or/and epidemiological link

Only patients showing respiratory symptoms or have been in contact with a case of Covid-19 are tested.

### People hospitalized with severe signs of respiratory illness will be tested

Only the most severe cases are tests.

### Triage system for tests

"Priority is given to the most urgent samples based on the clinical data entered on the application form” – Only one occurrence (Belgium, <https://www.nieuwsblad.be/cnt/dmf20200307_04880150>).

## Surveillance

Collection, analysis, and interpretation of Covid-19 health data that are used for the planning, implementation, and evaluation of public health practice.

### Implement sentinel study

Selected reporting units, with a high probability of seeing cases of Covid-19 or laboratory facilities identify, notify, and report data on Covid-19 patients (adapted from: <https://www.who.int/immunization/monitoring_surveillance/burden/vpd/surveillance_type/sentinel/en/>).

### Obligation of reporting data on COVID-19 patients

The government specifically asks all healthcare facilities and/or laboratories to report data/key metrics on Covid-19 patients and/or medical equipment used.

### Prevalence estimation in the general population

Deployment of medical staff to test people in the general population. Generally random sampling but can also be stratified on age, gender, social situation.

### Syndromic surveillance

Research of symptomatic patients in the population by different means (e.g. phone app, phone calls) in order to identify illness clusters early, before diagnoses are confirmed and reported to public health agencies, and to mobilize a rapid response, thereby reducing morbidity and mortality (adapted from (Henning 2004)).

### Targeted surveillance

Targeted surveillance (also known as risk-based surveillance) is defined as a surveillance strategy that focuses sampling on high-risk populations in which specific and commonly known risk factors exist (Salman et al. 2003).

### Use existing respiratory disease surveillance systems

Use existing hospital-based severe acute respiratory infection (SARI) and primary care influenza like illness (ILI) sites, or whichever syndromic respiratory disease systems may already be in place to detect Covid-19 patients.

## Tracing and tracking

Tracing aims to identify and follow-up the persons who may have come into contact with an infected person (World Health Organization 2019). Tracking refers to the use of mobile software applications for contact tracing.

### Case tracking and monitoring during home isolation

Use of smartphone apps or other digital technologies to aid controlling if cases respect home quarantine and (not always) monitoring their health.

### Contact tracing

Contact tracing is the process of identifying, assessing, and managing people who have been exposed to a disease to prevent onward transmission (World Health Organization 2020). In the CCCSL, contact tracing means that no digital technology is used (see tracking).

### Contact tracking

Use of smartphone apps or other digital technologies to aid contact tracing.

### Tracking and monitoring of people under mandatory quarantine

Use of smartphone apps or other digital technologies to aid controlling if people that must be in quarantine truly respect it and (not always) monitoring their health.

### Tracking and monitoring travellers

Use of smartphone apps or other digital technologies to aid following movements of travellers and (not always) monitoring their health.

# Environmental measures

Measures aiming at reducing the transmission of COVID-19 through shared environment and surfaces. Those measures include the routine cleaning of frequently used surfaces, clothes and objects; minimizing the sharing of objects; and ensuring appropriate ventilation (European Centre for Disease Prevention and Control 2020).

## Enhance hygiene conditions

Seen in African countries: Some public places are cleaned as a response to Covid-19 (e.g. markets).

## Environmental cleaning and disinfection

Measures involving cleaning surfaces with detergent-based cleaners or disinfectants. The environment / surface concerned by the measure is specified in the subcategory (L3).

### Approval of new biocidal product

Permit of use of biocidal active substances already evaluated and approved approval of a modification of the active substance in a biocidal product, procurement of market authorization for biocidal products.

The following subcategories describe where the disinfection is performed (the label is clear enough and no further definition is given):

### Disinfect airplanes

### Disinfect businesses

### Disinfect educational institutions

### Disinfect hospitals

### Disinfect markets

### Disinfect mosques

### Disinfect nursing homes

### Disinfect public and semi-public spaces

### Disinfect public transports

### Disinfect shops

### Disinfect taxis

### Disinfect working places

### Economic support for environmental cleaning and disinfection

The government provides financial aid to support environmental cleaning and disinfection to prevent the spread of Covid-19.

# Healthcare and public health capacity

Public health capacity under the International Health Regulations (IHR) (2005) is defined as the indispensable, fundamental actions that are the primary responsibility of each State Party for achieving the goal of national health security, i.e. to prevent the spread of diseases and to detect and investigate health risks in the community by efficient multisectoral action (e.g. laboratory services and national, regional and global networks (World Health Assembly 2016). Healthcare capacity refers to patient capacity, healthcare workforce capacity, laboratory capacity, availability of medical supplies and equipment.

## Adapt procedures for patient management

### Case management

Hospitals are prepare to receive and treat Covid-19 patients.

#### Hospitals prepared to treat Covid-19 patients

Measures aiming to implement hospital preparedness planning, e.g. hospitals should ensure their staff are trained, equipped and capable of practices needed to detect and treat Covid-19 patients.

#### Digital assistant

Healthcare professionals are equipped with software agents/mobile devices to help/guide them in the diagnostic and management of Covid-19 patients.

### Ease prescription of regular medical products for patients

The prescription, renewal and delivery of medications and drugs is facilitated through use of online tools or extension of pharmacist rights.

### *Computer-based processing of prescriptions*

Computer-based electronic generation, transmission, and filling of a medical prescription (instead of paper). Can be done online. It enables the patient to avoid visiting the doctor who sends directly the prescription to the pharmacy.

### *Delivery of medicinal cannabis products*

### *Ease prescription renewal*

Easing restrictions on refills of some prescription drugs for chronic conditions. It reduces prescription-processing burden for physician practices.

### *Extend right of pharmacists to prescription of opioids*

### Implement triage procedures

Procedures to quickly examine and evaluate patients and then prioritize care are implemented.

#### Health hotline

Special telephone number to seek for medical advices (in particular to orientate patients on whether or not they should go to doctor or hospital).

#### Prioritize care

Cares must be provided to a specific category of patients (generally sickest ones).

#### Triage of patients depending in the severity of the symptoms

Triage of the patients based on the level of severity of their symptoms in order to orientate them to the appropriate hospital service or monitor them from their home.

#### Triage of patients outside hospitals

Set up of structures (often tents) to identify which patients are suspected of Covid-19 infection, which patients should be hospitalized, or which should be sent home.

### Simplification of the health journey

Access to healthcare and healthcare pathways show simplified and/or quicker procedures to ensure social distancing and appropriate patient treatment.

#### Authorize audio-only call for health care services

Allows using only voice call for health consultation (no video).

#### Authorize telemedicine

Allow remote medical consultation (i.e. the healthcare provider and patient are not physically present).

#### Authorize telemedicine for mental health

Allow remote mental health care (i.e. the healthcare provider and patient are not physically present).

#### Eliminate restrictions on ambulance services

Eliminate any restrictions on approved ambulance services or providers operating outside of the primary territory listed in such ambulance service’s operating certificate (measures specific to the USA).

#### Expand the use of and access to telemedicine

More medical consultations can be conducted/more pathologies can be followed-up remotely (e.g. includes chronic conditions).

#### For suspected cases

The health journey is facilitate for suspected cases.

## Enhance laboratory testing capacity

Measures aiming to increase the number of tests performed or to speed up the achievement of Covid-19 test results.

### Decrease time between test and result

Procedures aiming at reducing the time between sampling and achievement of Covid-19 test results.

### Increase laboratory facilities

Rapid repurposing of laboratory infrastructure or certification of new laboratories or development of mobile or drive-in laboratories for enhanced testing capacity during the COVID-19 pandemic.

### Increase testing capacity (number tests)

Measures aiming at increasing the number of available Covid-19 tests in the country.

## Increase availability of PPE

PPE: Personal protective equipment.

Measures aiming to increase the availability of masks, gloves, overalls, goggles, etc. for the population of specifically for frontline workers. Could be purchase, donated by a third country or a charity organisation, obtain through a specific increase in the domestic production.

### Face masks

The availability of (any sort of) face masks is increased for the population or healthcare professionals.

#### Rationing PPE for population

Controlling the distribution or limitation on the number of Personal Protective Equipment for the population.

### Hand sanitizers

The availability of hand sanitizers and/or soap is increased for the population or healthcare professionals.

### Increase domestic production of PPE

Increase the production of PPE for use in the home country.

### PPE (not specified)

The government increase the number and/or availability of Personal Protective Equipment but the category/type of PPE is not specified in the information source.

### PPE for healthcare professionals

The government takes measures for the healthcare professionals to receive more Personal Protective Equipment.

### PPE other than face masks

The government increase the number and/or availability of Personal Protective Equipment that are specified in the information source and are not face masks (see code for the detail of the PPE).

### Prohibition of export of protective personal equipment

Export restrictions or restrictions on exportation on the quantity of PPE exported to a specific country or countries by the government.

## Increase healthcare workforce

Measures aiming to increase the number of healthcare professionals (e.g. mobilize students or retired personals, impose a travel bans for healthcare professionals, increase the working hours of healthcare workers (work law released), ease their transport to work or facilitate their accommodation), increase the number of educated healthcare workers through specific training on Covid-19, or motivate the healthcare workers (incentives).

### Exception to work law allowed

The government waives some laws that restrict or control the working time and prerogatives of medical workers. E.g. it suspends restrictions regarding allowed working time, suspends licensure laws (out-of-state license in the USA), waives staffing requirements…

### Incentives for healthcare workers

Something is implemented that aims to motivate, encourage or support the work of medical workers.

#### Ease accommodation for healthcare professionals

Healthcare professionals get free or partially government-supported accommodation close to the hospital/medical facility where they work.

#### Ease transport of healthcare workers

Healthcare professionals get free or partially government-supported transport to and/or parking place at the hospital/medical facility where they work.

#### Monetary bonuses for healthcare professionals

Healthcare professionals get monetary payment over and above their standard salary or compensation package.

#### Increase legal protection of healthcare professionals

Provide health care providers with protection, in most instances, from lawsuits for medical malpractice and other potential liability.

### Mobilization of domestic resources for health

Recruitment of healthcare workers in the country to meet emerging needs and priorities.

### Movement restriction of healthcare professionals

Healthcare workers are not allowed to leave the country or to travel in contaminated/high-risk areas.

### Train medical staff especially for covid-19

Medical and paramedical workers receive a specific training to diagnose and manage Covid-19 patients and/or to protect themselves from contamination.

## Increase in medical supplies and equipment

Measures aiming to increase the availability of medical supplies and equipment in the country, e.g. bans on exportation of medical equipment and drugs, increase of domestic production, tax relief on medical products, measure facilitating import, or purchase of supplies and equipment in another country.

### Ambulances

The number of ambulance in the country is increased (purchase or donation).

### Ban on exportation of medical equipment and drugs

Ban or limitation on the exports of drugs and medical supplies to mitigate shortages of equipment and materials needed for healthcare.

### Delivery of medical supplies and equipment

Exceptional measure to deliver medical materials (mostly in remote areas of the country, i.e. islands).

### Diverse medical materials and equipment

The government increases the number of some specific medical materials (see code related to this subcategory) but because there is several types of materials, they have not been listed in the subcategory.

### Ease access to drugs

Measure to facilitate the delivery or prescription of medications to the patients or to facilitate the use of certain drugs for medical trials.

### Increase delivery capacity for medical supplies

Measure aiming to increase the transport and/or delivery capacity of medical materials.

### Increase domestic production of medical equipment

Measure aiming to equip or repurpose some industries and businesses in the country in order to increase the production of medical material in the country.

### Respirators

The number of respirators in the country is increased (purchase or donation).

### Secure necessary medical equipment stocks and distribution

Measure aiming to store medical materials to face the demand but it includes also measures aiming to implement procedures or computer-based systems to manage the supplies and stocks of medical materials and distribute them where they are necessary.

### Thermometers

The number of (any type of) thermometers in the country is increased (purchase or donation).

### Ventilators

The number of ventilators in the country is increased (purchase or donation).

## Increase isolation and quarantine facilities

Measures which make it possible to requisition existing buildings or to set up structures (example: tents) in order to allow the isolation of patients or the quarantine of people who must be separated from the population for a defined period.

### Isolation centers

Facilities for the isolation of Covid-19 cases.

#### New isolation structure for non-severe cases

### Quarantine centers

Facilities for the quarantine of persons that have to be separated from the population because they may represent a risk of Covid-19 transmission.

#### Government properties repurposed as quarantine facilities

#### Long-term care facilities repurposed as quarantine facilities

#### Public housing converted into quarantine facilities

#### Quarantine facilities implemented for travellers coming from affected areas

#### Short-term accommodations repurposed into quarantine facilities

#### Stadiums repurposed into quarantine facilities

#### Student dormitories repurposed into quarantine facilities

## Increase patient capacity

This category deals with measures aiming to improve patient flow and increase the capacity of the medical institutions in order to receive more patients.

### Beds

Measure aiming to increase the number of beds in medical institutions.

### Emergency hospitals

Emergency hospitals are built (concerns the construction of new facilities specifically to answer the emergency needs related to Covid-19).

### Increase ICU capacity

Measure aiming to increase the number of places in Intensive Care Unit in order to treat Covid-19 patients.

### Increase medical consultation capacity

The government increases the number of medical centers in order to examine more patients. Also includes measure aiming to enhance the possibility for the patients to get specialist consultations.

### Increase number of medical institutions

The number of hospitals, healthcare centers, etc. that can receive Covid-19 patients is increased.

### Medicalise nursing home

Nursing homes are equipped with medical equipment in order to be able to treat their residents on-site.

### Postponement of non-essential care and non-urgent operations in hospitals

Non-emergency medical cares and non-emergency operations must be postponed in order to decrease the number of non-Covid19 patients in the medical institutions to limit the risk of contamination to these patients and free space for Covid-19 patients.

## Personal protective measures

Measures aiming to protect individuals.

### Enhance hand hygiene

Measures aiming to improve hand hygiene compliance or to increase the possibilities for respecting hand hygiene.

#### Allowing licensed pharmacies to make and sell alcohol-based hand sanitizers

#### Allowing non-traditional manufacturers to make alcohol-based hand sanitizers

#### Approval of new hand disinfectant

#### Essential businesses and operations shall make sanitizing products available for employees and customers

#### Hand sanitizers in airports

#### Hand sanitizers in public places (mandatory)

#### Mandatory hand washing/disinfection before entering a shop or working place

#### Mandatory hand washing/disinfection before entering a shop or working place

### Mandatory physical barrier between workers and public

### Mandatory use of gloves

### Mandatory use of masks

Mask wearing is compulsory (the code specify where and/or when).

### Mandatory use of PPE

### Precautions for handling and disposal of dead bodies

Measures to prevent contamination by body fluids. These measures are implemented in hospitals, firms of undertakers, and during funerals (i.e. non presentation of the body, certain burial ceremonies forbidden).

## Reduce the number of patients in healthcare centres and hospitals

Measures aiming to reduce the number of non-Covid-19 or non-critical Covid-19 patients in medical centres and hospitals.

#### No more patient accepted in rehabilitation centers

Rehabilitation centers do not accept new patients.

## Repurpose hospitals

Measures aiming to change hospital settings or usual hospital se in order to receive and treat Covid-19 patients, i.e. stratified patient care, assignment of hospitals/beds by a task force team, the establishment of dedicated COVID-19 hospitals, dedicated COVID-19 emergency centers, COVID-19 community facilities, and respiratory care split hospitals (Her 2020).

### Requisition private hospitals

The government requests private hospitals to face the emergency (treat Covid-19 patients or non-Covid-19 patients so that these last are not in contact with Covid-19 patients in the other hospitals).

### Small hospitals used to reduce burden on hospitals dealing with covid-19 patients

Smaller medical institutions treat non-Covid-19 patients (Covid-19 patients being treated in bigger hospitals).

### Some hospitals dedicated to covid19 patients

Procedures are set up in some hospitals that are specifically prepared and ready to receive and treat Covid-19 patients.

### Special section for covid19 patients

Hospitals implement (a) specific area(s) or unit(s) / circulation of patients in order to separately receive and treat Covid-19 patients.

## Research

Measures aiming to develop or fund research projects or initiatives related to Covid-19.

### Clinical trials on COVID-19

### Funding allocated to research

### Funding of a diagnostic test project

### Simplify clinical trials regulations

# Resource allocation

Resource allocation cover the whole range of policies involved in the allocation of budgets, deployment of resources, and distribution of goods for controlling a disease outbreak (these measures are most often carried out by national, regional, or even local authorities). This theme also includes the use of military and/or police forces to ensure compliance with the implemented NPIs. For example, under the IHR (2005), each State Party is required to develop, strengthen and maintain core public health capacities for surveillance and response by using existing national resources, such as the national plans for pandemic preparedness (Kinlaw and Levine 2007; World Health Assembly 2016).

## Activate or establish emergency response

The government activates pre-established emergency response plans (e.g. Declare state of emergency or any other exceptional state of a country that is linked with a major crisis) or establishes novel plans (risk management plan), administrative committees (e.g. set up of crisis unit), passes new laws, or waive data protection law, as emergency responses in order to manage the crisis.

### Declare state of emergency

Official declaration by the government of the state of emergency (or equivalent). A state of emergency is a situation in which a government is empowered to perform actions or impose policies that would normally not be permitted to undertake. A government can declare such a state during a natural disaster, civil unrest, armed conflict, medical pandemic or epidemic or other biosecurity risk (<https://en.wikipedia.org/wiki/State_of_emergency>).

### Emergency laws

This category groups measures dealing with laws that we have thought of high interest or that could not fit in a global category.

#### Law to ease the passing of laws

The government gets exceptional legal power to pass law with regard to the emergency (= "enabling act").

### Exceptional change to work law

Some work laws are changed to facilitate the hiring of specific (essential) workers. This category does not include healthcare professionals (see Healthcare and Public Health Capacity).

### Relaxation of data protection law

*Enable access to confidential patient information*

The government allows access to personal patient data for disease surveillance, research or to actively search and test contact persons.

### Repurpose domestic forces

The regular duties of some forces (in the single measure included in this subcategory it is firefighters) are decreased in order for them to help fighting against Covid-19.

### Risk management plan

A risk management plan is a document that the government has prepared or intend to prepare to foresee risks, estimate impacts, and define responses to a specific risk (in this case Covid-19). Risk management plan includes a risk response.

#### Contingency plan

#### Country-wide alert level system

#### Emergency plan

#### Government taskforce

#### Highest level of alert

#### Mobilize other forces

#### Nationwide guidelines

#### New task force

#### Raised emergency level (1 to 2, 3 to 3, etc.)

#### Set up crisis unit (national)

#### Set up crisis unit (regional)

#### Update preparedness plan

### Suspension of the requirement for nutrient management plan

#### Disposal of unused milk

### Transfer or enforcement of decisional and legal power

#### Greater prerogative for mayors

#### Transfer the executive power of all ministers to Prime Minister

## Crisis management plans

A clearly defined and documented plan of action for use at the time of a crisis. Typically, a plan will cover all the key personnel, resources, services and actions required to implement and manage the crisis management process (<https://www.enisa.europa.eu/>). It includes for example the facilitation of some administrative procedures for the population, providing food assistance to the population, providing and receiving international help, measures to ensure the security of supplies, fixing a maximum price for necessity goods, measures concerning state aid, taxation and social security, or traffic enactment.

### Administrative procedures facilitated

Measure aiming to simplify and/or accelerate some administrative procedures using remote services or automatic extension of some licenses/authorisations.

### Develop all-of-society and business continuity plans

Economic measure aiming to support the businesses, private and public services, and industries. These measures aims to improve their ability to ensure operations and core business functions and mitigate the economic impact of Covid-19.

### Financial aid for health system

The government provides economic support to the healthcare institutions via transfer of funds.

### Funding for non-profit institutions

The government provides economic support to non-governmental organisations to fight against Covid-19 or mitigate its impact.

### Repurpose government plans

Adapt the government budget for use in a different purpose.

### State aid, taxation and social security

These measures are only related to aid provided by the government to individuals in the population (aid for businesses or private enterprises are not encompassed here). State aid is a term that refers to forms of public assistance. Taxation refers to any measures providing tax relief or tax deferral. Social security refers to measures that aim to improve or provide better social security to individuals in the population. Social Security is "any government system that provides monetary assistance to people with an inadequate or no income" (Bach and McKean 2003).

## Economic measure to stimulate consumption

Measures mostly taken during the easing of the restriction to stimulate domestic consumption, e.g. vouchers.

### Direct support to the population

The government provide direct incentive to the population to stimulate domestic consumption (e.g. vouchers).

### Direct support to people with low income

The government´s support to increase domestic consumption targets low-income family.

## Measures to ensure continuity of services

### Ensure the continuity of public services

### Increase workforce for critical jobs

## Measures to ensure security of supply

### Ban export of necessity goods

### Fixing maximum price for medical supplies

### Fixing maximum price for necessity goods

### Fixing price for medical supplies

## Fixing price for necessity goods

### Increase delivery capacity for food products

### Increase delivery capacity for medical supplies

### Increase delivery capacity for necessity goods

### Insure access to gas/electricity/water/telecommunications

### Prohibition of the hoarding of goods

### State aid for fuel supply

### Traffic enactments

## Police and army interventions

The police or the military force is deployed to support the healthcare workers, to provide help to the population or to ensure compliance with the implemented NPIs.

### Against dissemination of fake news

### For cybersecurity

### Increase police forces

### To collect data and samples for tests

### To support essential workers

### To support law enforcement/sanction in case of no compliance

### To support the population

## Provide international help

## Receive international help

## The government provide assistance to vulnerable populations

# Returning to normal life

Measures supporting the return to normal life, i.e. lifting of restriction measures (e.g. lift of quarantine, re-opening of schools, re-opening of shops) and adaptive measures.

## Access to non-essential/critical healthcare services

Non-urgent and non-critical health care and consultation are re-opened.

### Lift suspension on home birth

Births that take place at residence (rather than at hospital or birthing centre) can be performed again.

### One-to-one services allowed

In-person consultation with a healthcare professional is allowed.

### Re-opening of medical and paramedical centers

Health facility institutions, other than hospitals, can receive patients again.

## Actively communicate with managers (in Returning to normal life)

The government provides guidelines to managers (i.e. persons responsible for controlling or administering an organization or group of staff) and policy makers to inform them on the procedures for the re-opening of the activity/sector for which they are responsible. Communication actions are non-binding.

Guidelines for the re-opening of different shops, services, institutions, facilities

## Educate and actively communicate with the public

The government informs or educates the population regarding the timeline, conditions, and adaptive measures regarding the phase-out strategy and the return to normal activities. Communication actions are non-binding.

### Provide information on the restrictions

The government provides clear information on how and where the restrictions are lifted (e.g. traffic light: map with green and read areas with differential timelines in the phase-out strategy).

## Exemption of quarantine

The quarantine is soften or totally lifted for some categories of persons (specified in the subcategory or code) or for everyone (specified in the subcategory or code).

### Disembarkation of passengers

Concerns the Diamond Princess only: passengers can go out of the boat.

### For certain workers

Only specific categories of workers (usually those considered as essential workers) are dispensed of quarantine.

### For people who can prove they had covid-19

Only people showing antibodies via serological test are dispensed of quarantine.

### For persons with a permanent or temporary residence permit

Residents are dispensed of quarantine.

### Lift mandatory quarantine for commuters

Cross-border commuters (i.e. workers who are resident in a different country) are dispensed of quarantine.

### Lift mandatory quarantine for travellers from low risk areas

Travellers arriving from what is considered (by the government or the World health Organization) as low-risk country/area are dispensed of quarantine.

### Reduce quarantine period

The time of quarantine is cut down.

## Lift airport restrictions

### Lift landing ban

The prohibition of landing is lifted for the aircrafts originating from one, several (specified in the code) or all countries.

### Resume domestic flights

### Resume international flights

## Lift personal protective measures

The obligation of mask/gloves/hand washing/other personal protective measures is lifted. The subcategory and code specify in which circumstances/facilities/context personal protective measures are not compulsory anymore.

### Lift restriction on dead body management

The funeral or burial of dead persons can resume as in the traditional way.

### Lift obligation to cover mouth and nose in public

Face masks (or cloth masks) are not anymore mandatory in public areas.

## Lift restriction on individual movements

### Allow movements for non-essential activities

### Allow non-essential travel in the country/state

### Lift of the curfew

### Partial lift of the curfew

### Private transports allowed

### Segmentation of the population

Measure that involves using information about individuals, such as age and sex, to partition a population into similar groups. During the easing of the Covid-19 restriction: used as an adaptive measure when governments were lifting the restriction on individual movement in order to give older persons a special time to go out or fulfil their basic needs.

### Sport competitors can resume training

## Lift restriction on mass gatherings

Gathering of > 50 people is allowed although it can be a restriction on the number of people allowed in the same place (indoor or outdoor).

### Lift ban on familial and private gatherings

Familial and private celebrations (funerals, weddings…) with > 50 persons are allowed.

### Lift ban on festivals, faith-based events

Festivals and faith-based events are allowed.

### Lift ban on outdoor sport events

Sport event outdoor are allowed.

### Re-opening of certain shops (in the category “lift restriction on mass gatherings”)

Refer to the re-opening of shops that have a big surface, shopping centers, shopping malls…

### Re-opening of cultural institutions

### Re-opening of indoor sport facilities

### Re-opening of markets

### Re-opening of outdoor attractions and touristic sites

### Re-opening of outdoor sports facilities

### Re-opening of places of worship

### Re-opening of public outdoor leisure facilities

### Re-opening of public places

### Re-opening of workplaces

### Resume activity in gastronomy and trade facilities

### Resume indoor hobbies and leisure activities

### Resume outdoor activities

## Lift restriction on public transports

## Lift restriction on small gatherings

Gathering of < 50 people is allowed but there is still a restriction on mass gatherings.

### Lift ban on familial and private gatherings

Familial and private celebrations (funerals, weddings…) with < 50 persons are allowed.

### Re-opening of certain shops (in the category “lift restriction on small gatherings”)

Refer to the re-opening of shops of small to medium size (e.g. retail stores). To be differentiated from shopping centers for example, which are classified as “mass gathering”.

### Re-opening of judicial institutions

### Re-opening of long-term facilities

### Re-opening of public institutions

### Re-opening of restaurants/bars/cafes

### Re-opening of short-term accommodations and hotels

### Resume outdoor sports and activities

### Resume public services

### Resume private services

### Sport competitors can resume training

## Lift travel restriction

### Expand zone of travel

### Lift cordon sanitaire

### Lift maritime restriction

### Resume public transport

## Phase out emergency management

The government takes policies aiming to exist the previous phase of managing the different aspects of emergencies (preparedness, response, mitigation) and enter in the recovery phase.

### Lift state of emergency

### Start of phase-out strategy plan

Official date for the start of the easing of the restrictions.

## Re-opening of educational institutions

## Re-opening of land borders

## Resume visits in establishments hosting vulnerable populations

# Risk communication

All implemented methods for using communication strategically to achieve positive behavioural and social results. Risk communication includes health education, health literacy, health promotion, risk communication and social mobilization (World Health Organization 2019). We have included in this category all voluntary, non-compulsory, recommended measures of any kind.

## Actively communicate with healthcare professionals

The government disseminate information and/or guidelines to the medical workers or institutions.

## Actively communicate with managers

(previously labelled “Actively communicate with stakeholders”)

Pro-active communication with managers other than healthcare professionals (i.e. persons responsible for controlling or administering an organization or group of staff) and policy makers to promote or encourage the implementation of work safety protocols (promote social distancing, environmental cleaning, wearing of masks) in enterprises, businesses, government administrations, etc. via different communication ways (e.g. guidelines, allocutions, official documents) or to ask them assess the risk before organising an event. Risk communication measures are non-binding.

## Educate and actively communicate with the public

Communication strategy to achieve positive behavioural and social results. Educate and actively communicate with the public plays a critical role in the implementation of the NPI measures by modifying behaviour (World Health Organization 2019). It includes the quick development of effective communication strategies, messages and materials, using existing resources and partnerships (e.g. social media, direct allocution, TV program, covid-10 hotline, webpage…): share the rationale, encourage active engagement, empower people with information, and adapt recommendations to the local context (World Health Organization 2019). Risk communication measures are non-binding.

### Answer to questions

The government communicates to the public directly of via different media in order to provide answers to questions that the public can have on Covid-19 (e.g. website, hotline, FAQ, etc.)

### Call for return of nationals living abroad

The government asks or advises the nationals residing abroad or national tourist abroad to return to their country of origin.

### Communication targets nationals living abroad

The government addresses nationals residing abroad or national tourists abroad to provide information or advice (but do not call for a return).

### Communication targets protection of vulnerable populations

The government addresses the general population and provides information/advices/guidelines regarding best practices/behaviour to adopt towards vulnerable persons(pregnant women, persons with a medical pre-conditions, elderly, person suffering from mental illness…) in order to protect them from infection with SARS-Cov-2.

### Direct advice to vulnerable populations

The government provides information or guideline specifically to vulnerable persons (pregnant women, persons with a medical pre-conditions, elderly, person suffering from mental illness…).

### Direct government communication

The government directly addresses the populations via a live speech or a TV programme (we have separated this type of communication from the communication through twitter or other social media or the other information campaign because direct communication may have a stronger impact on the population or aim to communicate very important information).

### Encourage donation for covid19 crisis

### Encourage environmental disinfection

### Encourage hand hygiene

### Encourage self-initiated quarantine

Encourage self-initiated quarantine for certain populations, i.e. anyone returning from a foreign country, contact persons, contacts and suspected cases, for people who attended a service at Shincheonji Church, for people who visited Cheongdo Daenam hospital, travelers returning from high risk areas. This is a non-binding measures (only recommendation).

### Encourage stay at home

The population is advised to stay at home (the term is specified in the text).

### Discourage non-essential travels

### Encourage to call before medical visit

### Encourage vaccination against respiratory diseases other than covid19

### Foster community assistance

The government encourages the citizens to look after each other and to check on the most vulnerable. Some initiatives/projects are launched for this objective.

### Guidelines

### Implement communication tool

The governments develops and gives access to tools enabling the public to follow the course of the epidemic (dashboard) or to provide the public with some information (SMS, app).

### Information about travels

### Information bulletin

### Information campaign

### Promote health check if respiratory symptoms

### Promote hygiene measures and social distancing

### Promote self-health check

### Promote self-initiated isolation of people with mild respiratory symptoms

### Promote social distancing measures

### Promote telemedicine

### Promote testing

### Promote workplace safety measures

### Raising awareness of children in schools

### Respiratory etiquette

### Safety during sport practice

### Strengthen communication capacities

The government provides some education to some persons who are the sent to different communities in order to increase the communication on Covid-19 and obtain therefore more understanding and compliance from the population.

## Travel alert and warning

### Travel alert level 1 to 6

The government provides information on the level of alert for the different countries.

### Warning against travel to and return from high risk areas

The government discourage travelling in certain countries (countries are specified in the code).

# Social distancing

Social distancing refers to methods for reducing frequency and closeness of contact between people in order to decrease the risk of transmission of disease. Examples of social distancing include cancellation of public events such as concerts, sports events, or movies, closure of office buildings, schools, and other public places, and restriction of access to public places such as shopping malls or other places where people gather (Kinlaw and Levine 2007).

## Closure of educational institutions

Measures aiming to implement social and physical distancing through the closure of educational institutions (including closure of day-care centres, kindergarten, primary and secondary schools, universities), the postponement/cancellation of or special measures for exams, reduction or cancellation of excursions.

## Mass gathering cancellation

Measures aiming to implement social and physical distancing through the prohibition of mass gatherings, i.e. planned gatherings of more than 50 persons (NPIs implemented to provide a strict limit on the number of persons, i.e. 100, 500, 1,000, 5,000, are included and specifically described). It includes the closure of non-essential public places, the prohibition of conferences, meetings and trade fairs, the postponement of elections, the closure of cultural places and events, the prohibition of festivals and faith-based events, the implementation of e-learning, the closure of indoor activities (gyms, swimming pools, fitness centres…).

Note: mass gathering: Group events such as concerts, festivals, and sporting events bring people into close contact for extended periods (Qualls et al. 2017).

### Closure of adult daycare facilities

### Closure of discotheques

### Closure of markets

### Closure of non-essential public places

### Closure of non-essential working places

### Complete prohibition of gathering

### Conferences, meetings, trade fairs, etc.

### Cultural places and events

### Festivals, faith-based events

### Implement e-learning

### Indoor activities

### Measures for elections

### Outdoor activities

### Places of worship

### Public events

### Sport events

### Unspecified

## Measures for public transport

### Implement cashless payments in public transport

### Implement the 2m distance

### Increase service

### Specific measures to avoid congestion

## Measures for special populations

Measures aiming to protect groups of people with needs that require special consideration and attention. It includes measures to limit the contact to hospital patients (reduce or prohibit visits), measures to limit contact to long-term care facilities, measures to limit contact to the elderly (special hours for shopping, limit on the visits in nursing homes), measures for the most exposed (not healthcare) professionals (e.g. provide personal protective equipment to post officers, garbage collectors, social workers, etc.), measures to protect prisoners, measure to protect vulnerable populations (homeless, persons with a medical precondition).

## Return operation of nationals

The government operates charter flights or any other transport means to enable nationals abroad to come back to their country.

## Small gathering cancellation

Measures aiming to implement social and physical distancing through the prohibition of small gatherings, i.e. gatherings of less than 50 persons (NPIs implemented to provide a strict limit on the number of persons, i.e. 2, 5, 10, ...50, are included and specifically described). It includes the closure of restaurants/bars/cafés, closure of short-term accommodations, closure of non-essential shops, bans on family celebrations (e.g. weddings, funerals).

### Closure of non-essential shops

### Closure of restaurants/bars/cafes

### Closure of short-term accommodation

### Closure of student dormitories

### Complete prohibition of gathering

### Implement part-time work

### Mandatory 2m distance in public spaces

### Mandatory home office

### Non-critical court operations suspended

### Reduce close physical contact in workplaces

### Remote Psychotherapy Consultation

### Restriction on private and familial events

## Special measures for certain establishments

### Measures implemented to authorize the functioning of some establishments under certain conditions, i.e. respecting social distancing and/or public hygiene and/or environmental cleaning and/or personal protective measures (e.g. for catering, places of worship, public administration). This category also includes measures aiming at protecting the public or residents of specific types of establishments (e.g. prisoners).

### Aircrafts and airports

### Alcohol sellers

### City hall

### Closure of adult daycare facilities

### Decongestion of administrative institutions

### Emergency rooms hospitals

### Entertainment venues

### Essential businesses and operations

### Essential shops

### Establishments open to the public

### Food services

### Grocery stores

### Implement the 2m distance

### Measure for cashless payments

### Museums, events

### Non-essential shops

### Places of worship

### Post offices

### Prisons and youth detention centers

### Public utility companies

### Residential social institutions

### Restaurants

### Restriction in number of people in child care settings

### Short-term accommodation: partial closure

### Sports centres with indoor facilities

### Touristic places

### Veterinary clinics

## Work safety protocols

Protective measures / procedures implemented in workplaces to protect workers and ensure occupational health and safety.

# Travel restriction

Travel restriction encompasses travel alert, entry and exit screening, internal travel restrictions, border closure (World Health Organization 2019), and cordon sanitaire.

## Airport restriction

### Airports closed

### Ban on all air traffic from countries outside the European Union

### Cancellation of domestic flights

### Cancellation of international flights

### Entry ban to passengers from high-risk areas other than China

### Entry ban to passengers from non EU citizens

### Landing bans on aircrafts from high risk areas

### Some airports dedicated to receive international flights

## Border restriction

Measures aiming to limit the travelling possibilities of persons and goods through restrictions on (air and/or land) borders. It includes the (re-)establishment of border controls, bans and conditional entry of persons in a country, entry bans of foreign nationals from infected countries or with a travel history to infected countries, entry bans of refugees, and travel bans to high-risk areas.

### Border control

### Close land border to prevent virus spread

### Close land border to prevent virus spread

### Conditional entry of citizens

### Conditional entry of persons from neighboring countries

Entry ban for symptomatic people and case contacts

Entry ban to infected persons

Entry ban to non-citizens

Entry ban to people from China

Entry ban to people from high-risk areas other than China

Entry ban to people with a travel history to China

Entry ban to refugees

Land border controls

Land borders closed

Total entry ban

Travel ban to high-risk areas

## Cordon sanitaire

Establishment of a geographic containment zone, typically monitored by authorities, to restrict movement into and out of an infected area.

## Individual movement restrictions

Measures aiming to impose a restriction of movement on persons, e.g. a curfew; implementing a buffer zone around the main residence; prohibition of movements for non-essential activities; segmentation of the population.

### Curfew

### Movements for non-essential activities forbidden

### Non-essential travels abroad/out-of-state forbidden

### The government strictly regulates travels abroad or out-of-state (USA).

### Obligation to stay at home

### Partial restriction on movements

### Prohibition of moving out the municipality of residence

### Restrictions on the movements of children

### Segmentation of the population

Measure that involves using information about individuals, such as age and sex, to partition a population into similar groups. During the Covid-19 response: used to give older persons a special time to go out or fulfil their basic needs.

## National lockdown

Requirement for people to stay where they are, usually due to specific risks to themselves or to others if they can move freely. In the version of the data set used in this study, for the states of the USA, the term "state lockdown" is used instead of “national lockdown” (Stay-at-Home Order).

### Port and ship restriction

### Public transport restriction

Bach D, McKean E (2003) 1001 Financial Words You Need to Know. Oxford University Press, USA, DOI

European Centre for Disease Prevention and Control (2020) Technical Report. Considerations Relating to Social Distancing Measures in Response to COVID-19 – Second Update. ECDC, Stockholm

Henning KJ (2004) Overview of syndromic surveillance. What is syndromic surveillance? MMWR Morb Mortal Wkly Rep 53:5-11

Her M (2020) Repurposing and reshaping of hospitals during the COVID-19 outbreak in South Korea. One health (Amsterdam, Netherlands) 10:100137-100137. 10.1016/j.onehlt.2020.100137

Kinlaw K, Levine RJ (2007) Ethical guidelines in Pandemic Influenza—Recommendations of the Ethics Subcommittee of the Advisory Committee to the Director, Centers for Disease Control and Prevention. Centers for Disease Control and Prevention,

Qualls NL, Levitt AM, Kanade N, Wright-Jegede N, Dopson S, Biggerstaff M, Reed C, Uzicanin A (2017) Community mitigation guidelines to prevent pandemic influenza — United States, 2017. MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports 66

Salman M, Stark K, Zepeda C (2003) Quality assurance applied to animal disease surveillance systems. Revue Scientifique et Technique 22:689-696. <http://dx.doi.org/10.20506/rst.22.2.1431>

World Health Assembly (2016) International Health Regulations (2005). World Health Organization, Geneva DOI

World Health Organization (2019) Non-Pharmaceutical Public Health Measures for Mitigating the Risk and Impact of Epidemic and Pandemic Influenza. World Health Organization, DOI

World Health Organization (2020) Contact tracing in the context of COVID-19 : Interim guidance.