CCCSL: Glossary of Codes

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# 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.

### Speed notification

The government asks to decrease time between suspicion and notification.

### Mandatory report of test results by laboratories

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

## 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 (Airport health check)

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

### Health questionnaire (Airport health check)

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

### Health screening (Airport health check)

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 (Airport health check)

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 (Border health check)

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

### Health questionnaire (Border health check)

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

### Health screening (Border health check)

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 (Border health check)

Control of the body temperature to identify travellers with fever.

#### All airports and all harbours

The temperature screening is implemented for air and maritime travellers.

### 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.

### 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.

### 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.

#### Facilitate access to personal patient data

The government allows access to personal patient data to actively search and test contact persons.

### 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.

### 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).

## 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

## Public transport health check

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

## 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 certain type of patients (due to shortage of test or insufficient laboratory facilities or workforce).

## 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.

### 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.

### 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.

### 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).

## 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.

# 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 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

### Ease prescription of regular medical products for patients

### Health hotline

### Implement triage procedures

### No more patient accepted in rehabilitation centers

### Prioritize care

### Simplification of the health journey

Prioritize emergency care and identify patients who need immediate medical attention because of the nature or severity of their injury or illness.

#### 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.

#### Prioritize care

Cares must be provided to the sickest patients.

## 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.

### List of the PPE

### Increase domestic production of PPE

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

### 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.

### Rationing PPE for population

Control distribution or limitation on the number of PPE for the population.

## 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

#### Ease accommodation for healthcare professionals

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

#### Ease transport of healthcare workers

#### Monetary bonuses for healthcare professionals

#### Increase legal protection of healthcare professionals

### Mobilization of domestic resources for health

### Movement restriction of healthcare professionals

### Train medical staff specially for covid-19

## 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.

## 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 certain period.

### Ambulances

### Ban on exportation of medical equipment and drugs

### Delivery of medical supplies and equipment

### Devices for ventilators

### Ease access to drugs

### Equipment

### Facilitate import

### Increase delivery capacity for medical supplies

### Increase domestic production of medical equipment

### List of material: to code differently (see also increase availability of PPE)

### Medical beds and other medical supplies

### Medical equipment, laboratory equipment

### Secure necessary medical equipment stocks and distribution

## Increase isolation and quarantine facilities

### Government properties repurposed as quarantine facilities

### Isolation centers

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

### New quarantine structure for non-severe cases

### Public housing converted into quarantine facilities

### Quarantine centers

### 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

### Beds

### Emergency hospitals

### Increase ICU capacity

### Increase medical consultation capacity

### Increase number of medical institutions

### Isolation wards

### Medicalise nursing home

### Postponement of medical appointments

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

## Personal protective measures

### Enhance hand hygiene

### Mandatory physical barrier between workers and public

### Mandatory use of gloves

### Mandatory use of masks

### Mandatory use of PPE

### Precautions for handling and disposal of dead bodies

### Prevent contamination by body fluids

## 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 (promote self-isolation of mild symptomatic people, set up a health hotline to answer questions).

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

### Staff qualifications extended to avoid unnecessary emergency staff visits

## Repurpose hospitals

### Isolation and quarantine

### Requisition private hospitals

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

### Some hospitals dedicated to covid19 patients

### Special section for covid19 patients

## Research

### Antibody research

### Clinical trials on COVID-19

### Focus on implementing measures to detect, manage, and reduce the transmission of the virus

### Funding of a diagnostic test project

### Health research

### Open call 50 million euros

### Simple diagnostic kits, antiviral drugs, vaccines

### Simplify clinical trials regulations

### Vaccine

### Vaccine and antiviral development

### Vaccine trials on COVID-19

# Resource allocation

Resource allocation covers the whole range of operations 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). 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).

## 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.

## Emergency response mechanisms

Emergency response mechanisms are mostly related to the declaration of emergency state or any other exceptional state of a country that is linked with a major crisis.

# 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.

# 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 stakeholders

Pro-active communication with stakeholders 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.

# 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.

## 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).

## Mass gathering

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

## 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…).

## 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).

## 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).

# Travel restriction

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

## 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 of persons, e.g. curfew, implementing a buffer zone around the main residence, prohibition of movements for non-essential activities, segmentation of the population.

## 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).

## 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.

European Centre for Disease Prevention and Control (2020) Technical report. Considerations relating to social distancing measures in response to COVID-19 – second update. ECDC,

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

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