

CONSIDERATIONS ON THE ADJUSTMENTS OF SOCIAL DISTANCING AND TRAVEL-RELATED MEASURES IN THE CONTEXT OF THE RESPONSE TO COVID-19 PANDEMIC

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1 | PREAMBLE

As the COVID-19 pandemic evolves, this document was developed to complement the PAHO document *Considerations on social distancing and travel related measures in the context of the response to COVID-19 pandemic*, distributed to the PAHO/WHO Country Offices on 3 April 2020 and now available on the PAHO COVID-19 web page.¹ Similarly, it complements the two WHO documents enumerated below:

- *COVID-19 Strategy update*,² is setting the global strategic objectives for the response to the COVID-19 pandemic: (i) Whole of government and communities mobilization; (ii) Control of sporadic cases and clusters and prevention of community transmission by rapidly detecting, isolating, and treating cases; and by identifying, quarantining, and catering for the needs of their contacts; (iii) Suppression of community transmission through non-pharmaceutical measures;³ (iv) Reduction of mortality by providing appropriate clinical care to cases, ensuring the continuity of essential health and social services, and protecting frontline workers and vulnerable populations; (v) Development of safe and effective vaccines and therapeutics that can be delivered at scale and that are accessible based on needs.
- *Considerations in adjusting public health and social measures in the context of COVID-19*,⁴ is reiterating the four transmission scenarios characterizing the pandemic so far,⁵ and it is anticipating that, based on current evidence, the most plausible epidemiological evolution of the pandemic that may be observed in the coming months might involve recurring epidemic waves interspersed with periods of low-level transmission, also including different transmission scenarios simultaneously occurring in non-contiguous areas within the same country. Therefore, especially in the current absence of both, safe and effective specific treatment and vaccine, the implementation of social distancing and travel-related measures (hereafter also referred to as “measures”) might require adjustments, in either direction (either tightening or lessening them), taking into account the following: (i) The epidemiology, and, in particular, the rate of spread of SARS-CoV-2 virus, causing

¹ Considerations on social distancing and travel related measures in the context of the response to COVID-19 pandemic, PAHO, 3 April 2020, <https://www.paho.org/en/documents/considerations-social-distancing-and-travel-related-measures> [Accessed on 20 April 2020]

² COVID-19 Strategy update, WHO, 14 April 2020, https://www.who.int/docs/default-source/coronaviruse/covid-strategy-update-14april2020.pdf?sfvrsn=29da3ba0_6 [Accessed on 20 April 2020]

³ Non-pharmaceutical public health measures for mitigating the risk and impact of epidemic and pandemic influenza, WHO, 2019, <https://apps.who.int/iris/bitstream/handle/10665/329438/9789241516839-eng.pdf?ua=1> [Accessed on 20 April 2020]

⁴ Considerations in adjusting public health and social measures in the context of COVID-19, https://apps.who.int/iris/bitstream/handle/10665/331773/WHO-2019-nCoV-Adjusting_PH_measures-2020.1-eng.pdf [Accessed on 20 April 2020]

⁵ Critical preparedness, readiness and response actions for COVID-19, WHO, 22 March 2020, <https://apps.who.int/iris/rest/bitstreams/1272587/retrieve> [Accessed on 20 April 2020]. **Transmission scenarios: 1.** Countries with no cases (**No Cases**); **2.** Countries with 1 or more cases, imported or locally detected (**Sporadic Cases**); **3.** Countries experiencing cases clusters in time, geographic location, or common exposure (**Clusters of cases**); **4.** Countries experiencing larger outbreaks of local transmission (**Community transmission**)

COVID-19. This should be maintained at a level at which new cases do not exceed the capacity of health services; and, ideally, at a level of sporadic cases and clusters of cases, all originating from known contacts or importations; (ii) The capacity of the health system (public health and health services), in terms of workforce, infrastructure, and technology, to detect, isolate, and treat cases irrespective of their severity, as well as to identify, quarantine, and cater for the needs of their contacts in order to break chains of transmission; (iii) The risks for the amplification of SARS-CoV-2 virus transmission in high-vulnerability settings; (iv) The existence of preventive measures in workplaces; (v) On the basis of the local, national and international epidemiological situation, as well as of the saturation of health services at any given point in time, the capacity to minimize the exportation and importation of cases, including through arrangements at points of entry; (vi) The level of community engagement in accepting and complying with changing measures in either direction.

This paper is also aligned with the document *An overview of current social distancing measures and required evidence for determining optimal time for relaxing such measures*, presented at the COVID-19 Pandemic response - High level meeting of Ministers of Health, convened by the PAHO Secretariat on 14 and 15 April 2020.⁶

2 | Objective

The actual or potential negative socioeconomic impact, determined by the adoption of stringent social distancing and travel-related measures, is translating into a mounting pressure on national leaders to call for a transition to less stringent measures which would allow the economy to regain some momentum, without precipitating a dramatic evolution of the pandemic. Mindful of that, this document aims at providing national authorities, across governmental sectors, with a framework to inform their decision-making process, over the coming months, concerning the adjustment of social distancing and travel-related measures, which are strictly intertwined, without nullifying efforts and sacrifices incurred so far.

3 | Background

The public health rationale warranting the adoption of social distancing measures lies in minimizing the opportunity for exposure to individuals infected with SARS-CoV-2 virus, hence decreasing the number of cases, including deaths; decreasing the burden on health services, so that their capacity is not exceeded and an even larger health crisis is averted; and, by flattening the epidemic curve, buying time for specific pharmaceutical measures to become available. The public health rationale warranting the adoption of travel-related measures lies in limiting, or avoiding, the introduction of new additional cases of COVID-19, which might increase the burden on the already limited health services capacities (human resources, health technologies, physical infrastructures).

⁶ An overview of current social distancing measures and required evidence for determining optimal time for relaxing such measures, PAHO, 10 April 2020, <https://www.paho.org/en/documents/overview-current-social-distancing-measures> [Accessed on 20 April 2020]

Except for a limited number of countries in North America, Central America and South America,⁷ where in some areas the current rate of COVID-19 spread is high, the remaining countries in the Americas, thanks to a timely implementation of measures (through the promulgation of legal tools allowing for the provision of financial and fiscal protection, for the meeting of essential needs, and as for the maintenance of essential services) as the pandemic was burgeoning, are experiencing transmission scenarios allowing health services to operate within their capacity. Therefore, maintaining the current level of transmission, and possibly further curbing it, should represent the overall objective of current national response efforts.

The effectiveness in decreasing the rate of spread of SARS-CoV-2 virus, and related mortality, of both, measures individually implemented or implemented as package cannot be quantified. Nevertheless, this can be inferred from empiric observations in countries experiencing different transmission scenarios.⁸ Such observations are consistent with and corroborated by mathematical models.

4 | Principles

- Individual-based social distancing measures – isolation of cases and quarantine of their contacts – are warranted independently from the transmission scenario experienced. The exceeding of the capacity of both, public health and health services, is regarded as the only limitation which can prevent the implementation of these measures.
- At any point in time, depending on the transmission scenario observed, the adjustment of community-based social distancing and travel-related measures can be in either direction – either tightening or lessening them.
 - Notwithstanding that several measures are intertwined, generally, measures with the highest level of acceptability and operational feasibility and the fewest negative consequences could be introduced first and discontinued last.
 - The determination of a transmission scenario corresponding to a higher rate of spread of SARS-CoV-2 virus calls for the immediate implementation, or re-institution, of tighter measures, which it seems prudent to plan for two to three months. Tightening measures may range from the establishment of a cordon sanitaire around well circumscribed areas experiencing clusters of cases, to nation-wide lockdown.
 - The stabilization of the rate of spread of SARS-CoV-2 virus within the capacity of health services, may trigger considering the implementation of less stringent measures, and/or a lesser number of measures implemented at once. The experience in European countries is suggesting that the measures’ lessening process is, in many respects, more complex compared to the measures’ tightening process, and that this must be gradual, prioritized, and planned for. Ideally, each step in the lessening process should be taken at least 14 days apart, to allow for the identification of

⁷ Please refer to Interactive Map on PAHO COVID-19 webpage at <https://www.paho.org/en/topics/coronavirus-infections/coronavirus-disease-covid-19>

⁸ Johns Hopkins University, Coronavirus Resource Centre, Has the curve flattened?, <https://coronavirus.jhu.edu/data/new-cases> [Accessed on 20 April 2020]

epidemiological changes over a time interval corresponding to one maximum incubation period at least.

- Different transmission scenarios, especially in large countries,⁹ might be simultaneously present in noncontiguous geographical areas. While the adjustment of community-based social distancing measures applied to circumscribed geographic areas (e.g., second administrative subnational level) would be desirable, the experience of European countries is highlighting operational challenges as well as challenges in terms of communication while attempting the adoption of geographically differentiated community-based social distancing measures. Therefore, generally, the implementation of measures across the whole country's territory, or, in large countries, across the territory of the first subnational level, should be driven by the scenario corresponding to the highest rate of SARS-CoV-2 virus transmission.
- In response to the emergence of SARS-CoV-2 virus, the first measures adopted by countries in the Americas were travel-related measures, with 33 out of the 35 countries in the Region implementing such measures at the time of this writing. While points of entry should remain operational to ensure the global supplies chain, which, by extension, entails regarding conveyances' crews mobilized to that effect as essential workers, resuming of non-essential traffic should be carefully weighed against the capacity of the country to manage the additional public health and health services burden that imported cases may represent. Therefore, since, at the time of this writing, (i) the pattern of viral shedding, through different routes, by infected or clinically recovered individuals is not fully elucidated; (ii) the presence of the virus can only be detected through molecular diagnostic tools (e.g., PCR); (iii) the presence of antibodies against SARS-CoV-2 does not rule out the fact that the virus might still be shed; (iv) there is no evidence that the presence of antibodies against SARS-CoV-2 virus confers protection against re-infection; (v) tests currently available for detecting antibodies are additionally carrying a low sensitivity; (vi) travelers may acquire the infection during their journey, the decision to resume non-essential travel on the basis of documents carried by a traveler and issued by the country where the travel is originating on the basis of laboratory is not warranted (e.g., "immunological passport"). Notwithstanding that, while resuming international travel, the probability of exportation/importation of cases cannot be eliminated, the risk can be managed on the basis of the transmission scenario/s experienced by the destination country, the country of travel's origin, and the countries/s of transit, being the decision to resume the arrival of international travelers ultimately determined by the capacity of public and health services in the country of destination.
- There is no one-size-fits in terms of outcome of the decision-making process related to the adjustment of social distancing and travel-related measures, and its timing. Ultimately, the overarching principles underpinning any decision-making process would have to rely on (i) the availability of accurate data and the capacity to analyze and contextualize them; as well as (ii) on the ability to strike a fine balance between slowing transmission to maintain health services within their operational capacity while minimizing the risk of critical socioeconomic damage, maximizing health benefits and minimizing socioeconomic consequences.

⁹ For the purpose of this document, Argentina, Brazil, Canada, Chile, Colombia, Mexico, Peru, and the United States are regarded as large countries

5 | Critical Elements

The reiterative analysis of the elements enumerated below are regarded as critical to inform any decision-making process concerning the adjustment of measures. Such a process should, ideally, be rooted in a whole of government approach, political consensus among different parties, as well as consensus across administrative levels. To the extent possible, the process should involve representations of the whole society (e.g., professional associations, local leaders, etc.). To that effect, the institutional consultative mechanisms underpinning the decision-making process should be defined and documented. For easy reference, accountability purposes, and sub-sequent after actions review/s, the analytical process related to any decision considered and/or taken should be formally documented by relevant government authorities and decisions communicated to the public accordingly. When numeric values are included in the indicator, those values should not be interpreted as absolute cut-off points, but as reference or guidance to assist in appraising the critical element.

Data/information

- Accurate, granular, and up-to-date are critical to minimize the risk of taking decisions – especially those related to the lessening of measures – based on incorrect assumptions or incomplete information that may worsen or precipitate the rate of spread and health impact of SARS-CoV-2 virus. **The data pertain to vulnerable settings, public health services, health services, community engagement, economy.** The availability of those data, including in terms of timeliness and degree of analysis performed, is regarded, *per se*, as reflecting, and being directly proportional to, the actual and prospective response capacity of public health and health services of the country. As such, limited availability of data and information demands exerting a greater degree of caution in the decision-making process related to the lessening of measures.

Indicator:

- Existence of an inventory/list of available sources of data needed to generate the indicators referred to in the following paragraphs. The attribution to the subsequent headings of the indicators only represents a classification attempt according to the most likely primary source of data, which may vary from country to country.

High-risk populations and/or populations in vulnerable settings

- The protection of high-risk populations and/or populations in vulnerable settings conducive for the amplification of SARS-CoV-2 virus transmission, such as elderly in nursing homes; disabled people, and psychiatric patients in long-term care facilities; homeless people in shelters; undocumented migrants in detention centers; inmates in prisons and other correctional facilities; refugees in camps.

Indicators:

- Existence of an inventory/list of vulnerable settings;
- *Ad hoc*, preferably active, surveillance schemes (covering cases and deaths) for vulnerable settings in place, and data passively or actively collected on a weekly basis covers at least 90% of the vulnerable settings inventoried;

- *Ad hoc* laboratory testing schemes, based on molecular diagnostic, in place for guests and workers of vulnerable settings;
- Audit and inspection schemes for vulnerable settings are in place and focus on compliance with surveillance requirements, infection prevention and control practices, and environmental measures.

Public health services

- The generation of data pertaining to public health services implies the existence of one, or more surveillance schemes – based on epidemiological and molecular laboratory data; and supported by human resources and information management tools – which allow for the monitoring of the evolution of rate of spread of SARS-CoV-2 virus, or COVID-19, across the national territory, and for the timely detection of transmission patterns at local level, signaling high rates of SARS-CoV-2 virus spread. Additionally, since the decision-making process related to the adjustment of travel-related measures might need to be contextualized taking in to account the transmission scenarios experienced by countries in the sub-region, region, and worldwide, access to that information is needed.

Indicators:

Surveillance and laboratory diagnostic related

- Existence of documented protocols which underpin the SARS-CoV-2 and/or COVID-19-related surveillance scheme/s in place (e.g., ad hoc COVID-19 surveillance, comprehensive SARI surveillance, sentinel SARI surveillance, sentinel ILI surveillance, etc.);
- The **effective reproductive number (R_t)** is an indicator of transmissibility at any given point in time and in the context of a population assumed to be not completely susceptible. Values of $R_t < 1$ would indicate that the spread of an infectious agent, SARS-CoV-2 virus in this case, is being brought under control. The monitoring of the evolution of R_t over time represents the best indicator to appraise the rate of spread of SARS-CoV-2 virus and its trends. **A value of $R_t < 1$, as well as a decreasing R_t trend, over a 14 days period, towards a value of 1, would warrant the initiation of the process related to the prospective lessening of measures.**

However, the process of calculating and interpreting R_t depends on mathematical models, based on robust assumptions, and, most importantly, on reliable surveillance data generated by surveillance schemes in place in any given country.¹⁰ Doubts about the robustness of the mathematical model, or the reliability of surveillance data used for the calculation of R_t , warrant the use of the indicators listed below to inform the decision-making process related to the lessening of community-wide social distancing measures;

¹⁰ Support and assistance in that respect can be obtained from the PAHO Secretariat

- Continuous decline, over a 14 days period at least, of the incidence of confirmed and probable cases,¹¹ provided that, over that period, the surveillance and sampling schemes remain unchanged, or the sampling strategy is extended to a greater proportion of the population;
- Continuous increase, over a 14 days period at least, of the proportion of confirmed and probable cases for whom contact tracing is conducted;
- Continuous decline, over a 14 days period at least, of the proportion of confirmed and probable cases who could not be linked to any known chain of transmission. This equals to a continuous increase of the proportion of cases who can be linked to a known chain of transmission;
- Continuous decline, over a 14 days period at least, of the number of deaths among confirmed and probable cases, provided that, over that period, the surveillance and sampling schemes remain unchanged, or the sampling strategy is extended to a greater proportion of the population;
- Continuous decline, over a 14 days period at least, of excess mortality attributable to COVID-19;
- Proportion of samples obtained in the framework of sentinel ILI surveillance and positive for SARS-CoV-2 at molecular tests below 5% over a 14 days period;

Capacity related (to be interpreted not only in terms current capacity, but also of prospective capacity)

- Existence of documented strategy and operational arrangements regarding sampling and molecular testing approaches for SARS-CoV-2 virus;
- Existence of documented strategy and operational arrangements to conduct contact tracing under different transmission scenarios;
- Continuous increase of the proportion of confirmed and probable cases who are isolated either in health care facilities or medical settings. This proportion should ideally reach 100% and be maintained over an indefinite period of time;
- Under transmission scenarios allowing for contact tracing to be conducted, and provided that extensive efforts are warranted for the identification of contacts of confirmed and probable cases, continuous increase of the proportion of contacts identified who are documented to have

¹¹ Global Surveillance for human infection with coronavirus disease (COVID-19), WHO, 20 March 2020, <https://apps.who.int/iris/bitstream/handle/10665/331506/WHO-2019-nCoV-SurveillanceGuidance-2020.6-eng.pdf> [Accessed on 20 April 2020]

Suspect case: A. A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath), AND a history of travel to or residence in a location reporting community transmission of COVID-19 disease during the 14 days prior to symptom onset; OR

B. A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to symptom onset; OR

C. A patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath; AND requiring hospitalization) AND in the absence of an alternative diagnosis that fully explains the clinical presentation.

Probable case: A. A suspect case for whom testing for the COVID-19 virus is inconclusive. OR

B. A suspect case for whom testing could not be performed for any reason.

Confirmed case: A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

completed the 14 days quarantine period. This proportion should ideally reach 100% and be maintained over an indefinite period of time;

- Continuous increase of the proportion of suspected cases¹¹ on whose samples molecular diagnostic tests for SARS-CoV-2 virus infection are performed;
- Existence of detailed protocols regarding public health measures to be implemented at points of entry. Any decision that might have been taken with respect to resuming non-essential travel should be implemented only on that basis and should be subject to systematic reconsideration taking into account the global evolution of the COVID-19 pandemic. Extra careful consideration should be granted to the public health criteria and operational implications related to resuming the traffic of cruise ships.

Health services

- The generation of data pertaining to health services implies the existence information management tools allowing for the monitoring of the saturation of health services for both, treatment of COVID-19 as well as of other pathologies, so that their capacity is not exceeded (which would result not only in the fueling SARS-CoV-2 transmission, but also in excess mortality attributable to COVID-19 as well as other pathologies remained untreated), care is provided according to intended health care standards, including the adherence to infection prevention and control practice (the lack of which is likely to results in a depletion health care workers because of COVID-19 in particular). Therefore, it is critical that the decision-making process related to the adjustment of measures considers the protection of health services and of the health workforce as priorities.

Indicators:

Information system related

- Nation-wide proportion of health services routine capacity's used is daily known and includes physical infrastructure (number of ICU and non-ICU beds in particular); human resources; health technologies (including medical devices, medicines, other consumables including PPE);
- Alternate care sites established to increase the capacity of health services in response to COVID-19 have remained continuously unused for a 7 days period at least;
- Continuous decline, over a 14 days period at least, of COVID-19 related ICU admissions;
- Routine health services are operating at a maximum of 75% of their capacity for a 7 days period at least. This is critical to ensue that health services can absorb a possible rise in the number of COVID-19 cases needing admission, as well as with the backlog of interventions that might have been postponed because of COVID-19;
- Continuous decline, over a 14 days period at least, of confirmed and probable cases among health care workers;

Capacity related (to be interpreted not only in terms current capacity, but also of prospective capacity)

- Existence of documented nation-wide strategy and operational arrangements, including referral mechanisms, for scaling up and scaling down the capacity of health services to cater for COVID-19 related needs;
- *Ad hoc* laboratory testing schemes, based on molecular diagnostic, in place for health care workers.

Community engagement

- Local traditions, cultural context, political context, and religious believes, may affect the acceptability and compliance with community-wide measures, hence affecting their intended and expected impact on the rate of SARS-CoV-2 transmission. Proactive engagement of social stakeholders in the decision-making process is warranted to ensure that different social sensitivities are taken into consideration, hence attempting to secure acceptability and compliance with those measures, while decrease the chances of social unrest.

Indicators:

- Systematic community surveys (e.g., through mechanisms used for voting polls) to be conducted to assess the degree of acceptability of current and prospective measures. Results indicating that 75% or a higher proportion of the community is supporting any given measure, or package of measures, could be interpreted as an expression of support;
- In addition to country-specific data publicly available and systematically updated by Google (COVID-19 Community Mobility Reports, available at: <https://www.google.com/covid19/mobility/>), aggregated data to appraise compliance with measures implemented can be obtained through agreements with mobile networks and internet providers.

Economy

- The monitoring and forecasting of the economic implications determined by the implementation, or adjustment, of measures are necessary since their negative impact on the economy might reach a critical threshold beyond which increased inequities and poverty might entails substantial hurdles in the recovery process; and critically undermine the national fiscal situation thus affecting capacity to finance the health system and other essential governmental functions.

Indicators: Although the scope of the work of PAHO's Secretariat does not directly encompass this field, during the decision-making process related to the adjustment of measures, consideration should be given to the prospective a GDP decrease, increase of fiscal deficit, increase of unemployment rate, increase of poverty rate. Similarly, national or international assessments (e.g., CEPAL, OCDE, IMF) might be warranted.