'KEEPING EACH OTHER ALIVE'

A plan to implement a national ZERO COVID social and health strategy and to eliminate the SARS-CoV-2 virus



Today, Chile is going through a critical moment of the pandemic. To overcome it and regain our wellbeing we must:

- 1. Eliminate the presence of COVID-19 in our country and prevent its reappearance.
- 2. Shield the population against imminent risks such as the entry of new variants.

These are achievable goals, yet they depend on our ability to make better decisions - decisions that follow public health criteria, use the best scientific evidence, and contribute to a transparent and participatory governance framework.



1. INTRODUCTION

Today, Chile is going through the most critical moment of the pandemic. In the midst of an unprecedented health crisis, each day we find ourselves mourning the death of more than 100 Chileans due to COVID-19. **Our healthcare system, both public and private, experiences daily saturation and collapse of its critical, basic and emergency care units, and the postponement of thousands of healthcare interventions affecting patients of all kinds.**

The picture is bleak; the epidemiological indicators are alarming. The set of measures implemented to date has been ineffective in containing the transmission of the virus. If we do not change course today, we will continue to mourn the death of thousands of people and see further deterioration of our quality of life.

And yet, the means to prevent such outcomes are within our reach.

The international evidence is clear: **our first goals must be to eliminate the virus from our country and to prevent its reappearance.**

The Chilean Medical Association (*Colegio Médico de Chile*) has made multiple proposals to improve Chile's response to the pandemic. In March 2020, at the outset of the pandemic, we submitted to the President an outline of an inclusive, transparent and collaborative governance structure. Since then we have participated in all the programmes in which the government or the congress asked for our collaboration. But the lack of clear procedures in the government's health decision-making body forced us to withdraw from the so-called Mesa Social ("Social Panel").

The point of joining such working groups is to control the pandemic, but the measures implemented to date have been ineffective. Local or dynamic quarantines lack timely financial support so they have been unable to reduce mobility or infections. They have been inadequately applied, sustained for too= long and have failed to address the real epidemiological situation. These failures, in turn, have generated considerable pandemic fatigue among Chilean citizens: dissatisfaction, non-compliance, and resistance to the measures. This fatigue is increasing.

This is a very unpromising scenario – mounting deaths, a stressed health system, ineffective action – but other, better scenarios are possible. We need not continue like this. So we made the decision to present **a new, ambitious proposal: a ZERO COVID Social and Public Health Strategy.** The work was led by our COVID-19 Council, formed by a number of COVID-19 experts¹ and members of the Association's leadership team². The dissemination of this strategy was approved by the Honorable National Council of the Medical Association (Honorable Consejo Nacional del Colegio Médico).



¹ Dr. Jeanette Vega , Dr. Jeannette Dabanch, Dr. Gabriel Rada, Dr. Yuc Ramon Kong, Dr. Cristóbal Cuadrado, Dr. Manuel Nájera, Dr. Cristian Rebolledo, Marcelo Pérez, Matías Goyenechea.

² Dr. Izkia Siches, Dr. Patricio Meza, Dr. Francisca Crispi, Dr. José Miguel Bernucci, Dr. Roberto Estay.



As medical doctors, our goals are clear: to control the pandemic, avoid further preventable deaths, reverse the collapse of our health system, and protect our people from upcoming threats. To get there we must take a new approach.

2. WE NEED A NEW STRATEGY

An analysis of the international evidence accumulated during the last 16 months of the COVID-19 pandemic provides us with two important lessons:

The active management of the pandemic saved an enormous number of human lives.
The supposed choice between saving human lives and preserving the economy is a false dilemma.

Countries that reduced the number of fatal cases did so by applying classic epidemiological measures, such as strict border closures, quarantines for passengers arriving in the country, and robust responses to outbreaks that deployed effective contact tracing and isolation systems. In contrast, a passive response to the threat of the virus led to it spreading freely through the population and to a large number of deaths.

It has also been shown that the active implementation of classic epidemiological measures allows a country to operate, within its national borders, in conditions similar to those of pre-pandemic times, thus favouring both economic activity and human survival and brushing aside the need to sacrifice the former to achieve the latter.

Analysing these experiences, it is clear that the most effective strategy for resuming our lives as we know them is an elimination strategy. Elimination aims to keep the cases as low as possible by taking intense measures during a limited period of time. Countries such as New Zealand, Australia, China, Singapore, and Bhutan have managed to minimise the impact of the pandemic in both health and socioeconomic terms thanks to the early adoption of this strategy.

Countries that overtly chose to implement other strategies such as suppression (like most European countries) or mitigation (Sweden), which seek to "flatten the curve" or to respond dynamically to the epidemiological situation, have faced outbreaks and suffered negative impacts on their health, economic activity and social life due to pandemic fatigue and new variants.

We acknowledge that the current epidemiological situation makes it challenging to initiate an elimination strategy now. Pandemic fatigue is prevalent in the country and many of the successful implementations of the elimination strategy started at the beginning of the pandemic, as an initial course of action. However, when considering the experience of countries like Israel, who turned to





elimination midway through the pandemic, we have identified a **window of opportunity to switch to an elimination strategy.** If we implement intensive yet brief control measures now, strengthen the massive and successful vaccination campaign, and provide people with adequate social support, we will substantially lower the level of viral circulation and regain control of the pandemic.

Hence our proposal is to reorient the national response to the pandemic to a ZERO COVID social support and healthcare strategy.

New governance of the pandemic is essential to succeeding in implementing a ZERO COVID strategy. We need a participatory and transparent governance, with decisions made according to public health criteria and informed by the best scientific evidence. The Medical Association asserts, again, our willingness to be an active part of this new governance structure.

3. THE PLAN: 'KEEPING EACH OTHER ALIVE'

The plan 'Keeping Each Other Alive' was developed by a team of experts from Colmed and outlines the main characteristics of the new governance structure and the new measures needed to reach and sustain a state of ZERO COVID. The following sections describe the two main components of the plan:

- A new governance structure to tackle the pandemic.
- A redesign of the 'Step by Step' plan.

3.1. A new governance structure to tackle the pandemic

The governance of the pandemic must redirect its focus to using public health criteria to decide which are the most appropriate measures, incorporating the multidimensional implications of the pandemic and the necessary multi sectoral response. The new governance structure must go beyond the empty symbolic gestures and consultative character of the advisory groups that characterise the current management of the pandemic. Also, it must end the secrecy, lack of transparency, and erratic behaviour of the so-called Mesa COVID ("COVID Board") set up by the government.

The new governance structure must be built upon the following principles:

- Direct and binding participation of recognised experts and key stakeholders.
- Continuing evaluation and reformulation of the strategy and its implementation
- Transparent adjustments to the strategy and implementation plans (public minutes, well-founded judgments) based on agreed criteria (predefined indicators, thresholds, and actions).
- Transparency and accountability of the decision-making processes.
- Empowered regional leadership to secure a better fit between plans and territories.





Based on these principles, we propose a new governance structure that incorporates the lessons learned from the successful management of the H1N1 pandemic. Hence we recommend the creation of 3 related bodies to take charge of managing the national response to the pandemic:

1. Executive Board (Consejo de Manejo de la Pandemia), in charge of making the decisions to implement the health strategy.

2. Strategy Team (*Equipo Estratégico*), in charge of developing the global elimination strategy to be followed by our country.

3. Emergency Committee (*Comité de Emergencia*), led by the Public Health Department of the Health Ministry, in charge of implementing the strategic plan in the healthcare network and in collaboration with other ministries.

The **Executive Board** will be formed mostly by government authorities, such as the Ministers of Health, Social Development, Education, Transport, Labour and Finance, and the heads of Public Health and the Assistance Network.

In order to provide the Board with greater legitimacy, it will also include: representatives of the legislative branch (the presidents of the two chambers); representatives of the city councils and national universities; an expert in epidemiology (appointed by the Chilean Society of Epidemiology), an expert in infectious diseases (appointed by the Chilean Society of Infectious Diseases), a representative of the Chilean Medical Association, and a representative of the teachers' unions.

The Executive Board will meet weekly, at least. Its role will be to implement the health strategy and to decide everything related to new measures, phase changes, adjustments by geographical areas, changes in case definitions, and other matters central to the success of the strategy.

The **Strategic Team** will have the role of defining, evaluating and proposing adjustments to the strategy against COVID-19. It will monitor the progress of the strategic plan and gather national and international evidence to make evidence-based recommendations to adapt or modify the strategy in the short, medium and long term. It will meet monthly and should be formed by experts in the following areas:

- Evidence
- Epidemiology
- Test and trace
- Vaccination
- Clinical management
- Risk communication in a pandemic
- Social response
- Economic response





- Education
- Business (small and large companies)

The **Emergency Committee** will be led by the Department of Public Health and will coordinate the implementation of the strategy throughout the national health system and coordinate the collaboration between the Health Ministry and other government agencies.

3.2. A redesign of the 'Step by Step' plan

The plan aims to achieve a ZERO COVID country. This means freeing territories from community transmission and protecting them from new outbreaks by turning them into health bubbles. This will be possible once the cases are drastically reduced and there is a powerful testing, tracing and isolation system in place.

After analysing the international scientific evidence and the available national information, we have concluded that it is possible, with a high probability, to achieve viral elimination if certain conditions are met. Therefore the plan sets out to secure those conditions.

The plan considers, first, a set of intensive yet brief measures which will drastically decrease viral circulation. These measures can be quickly assimilated by citizens and will include limitations to mobility as well as social protection packages. These measures will be demanding, yet temporary, and should be taken for what they are: drastic actions that are critical to mid- and long-term success.

Second, the plan includes a robust reopening strategy, based on public health criteria. This will allow the resumption of low-risk activities first, and then gradually remove further restrictions according to the current epidemiological scenario and the risk levels. Once a territory reaches a low viral transmission, it will be shielded from the virus by protective measures. The reopening path will incorporate the most recent evidence on the association between activity and risk of contagion, virus transmission mechanisms, and lessons from the management of the pandemic by those countries that have reached good health and economic results.

The plan covers the period from now until the day we eradicate COVID-19. The plan is expected to shorten the duration of the pandemic in Chile, bringing the ZERO COVID day closer than it is now.

As it seeks to eradicate the virus, the plan will also minimise avoidable deaths – those directly caused by COVID-19, which could exceed 10,000 within the next few months, and secondary deaths caused by the collapse of the healthcare system and the consequent loss of care opportunities. But the plan also seeks to reduce the social cost associated with the current emergency and to protect families from financial harm, so that they can comply with the plan's health measures, among other benefits.

Finally, it is important to note that during the implementation of the plan, it will be necessary to con-





tinually reinforce certain basic, highly effective measures such as the correct use of masks, hand washing, physical distancing, and adequate ventilation.

One of the most urgent measures, **stage 0 of the 'Keeping Each Other Alive' plan**, **is the implementation of an 'epidemic short circuit':** a set of strict restrictions enforced for a short period of time. This short circuit is designed to reverse the worsening pandemic situation and thus drastically and effectively reduce the number of cases.

This short circuit is not equivalent to the previous and current lockdowns. Rather, it is a new measure that balances epidemiological efficacy and mental health. By being limited to a short period of time, it minimizes the immediate negative socioeconomic effects, and by accelerating the return to normal activities, it enables an earlier socioeconomic recovery.

STAGE 0: EPIDEMIC SHORT CIRCUIT

We propose to implement, as quickly as possible, an 'epidemic short circuit', which consists of the following measures:

- Suspension of the Mobility Pass (Pase de movilidad).

- **Redefinition of territorial units**, replacing municipalities with regions and eventually provinces as the smallest unit of analysis.

- Suspension of all activities that involve crowds or meetings of more than 10 people within enclosed spaces.

- Closure of all economic activity other than the production, distribution, and retail sale of essential household goods (groceries, medicines), the provision of healthcare, and the delivery of basic services such as water, electricity, gas and telecommunications.

- Prohibition of non-essential motor vehicle transportation and closure of public transportation, including domestic passenger air traffic.

- Direct and automatic cash transfers to the entire affected population, without any paperwork.

- Intensification of the vaccination effort, including mass and systematic vaccination at the local community level.

The short circuit will be implemented once only in all territorial units in which the COVID-19 incidence is greater than 10 cases per 100,000 inhabitants. The duration of the epidemic short circuit will be 3 weeks at most and will be announced a few days in advance so that people can make essential purchases and arrangements.

Outdoor group activities by household members or individuals will be allowed in order to minimize the short circuit's negative impact on mental health.





STAGES 1 TO 3

The 'Keeping Each Other Alive' plan strives to reinstall public health criteria at the centre of the decision-making process. It will take into account the risks of each activity, promoting low-risk activities and restricting high-risk ones. At the same time it seeks to support the economy, prevent mental health issues, and protect children.

The application of this plan will take the region as the unit of analysis and decision making, although the province may be used in certain properly considered cases, according to local relevance. The exceptions will be isolated and / or insular areas, in which it makes epidemiological sense to have territorial bubbles in smaller areas.

The following activities, which allow social contact and help reactivate priority groups in a safe way, will have a high priority when 'reopening' after the short circuit:

- 1. Low-risk outdoor activities.
- 2. In-person classes for children and adolescents.
- 3. Operation as usual of small and medium enterprises and independent workers.
- 4. Reopening of large companies.

The following figure illustrates the progression of allowed activities as the plan moves from Stage 0 or Short Circuit (SC) to Stage 4 or Territorial Bubble (TB).





Figure: 'Keeping Each Other Alive': activities allowed in each stage

Activities ordered by risk level, from low to high	SC	1	2	3	TB
Outdoor activities by individuals or household members					
Kindergarten, primary, and secondary school classes (voluntary)	×				
Intra-urban transport	×				
Activities in low-risk open spaces (e.g. commercial and productive outdoor activities wearing masks; outdoor classes; open-air religious services with reduced capacity)	×			•	
School and university classes in enclosed spaces (voluntary)	×	×			
Activities in medium-risk and high-risk open spaces (e.g. theatres, restaurants, bars)	×	×			
Activities in medium-risk enclosed spaces (e.g. shops, hairdressers)	×	×	×		
Night-time gatherings, meetings, and free movement	×	×	×		
Activities in high-risk enclosed spaces (e.g. restaurants, bars, cafes, gyms, theatres, cinemas)	×	×	×	×	
Interregional passenger travel (land, air, and sea) [1]	×	×	×	×	
Non-essential international travel	×	×	×	×	×
Definitions Enclosed space: space covered by a roof or enclosed by one or regardless of the materials used, the existence of doors or window temporary nature of the structure.	mor ws, o	e wa r the	IIIs or pern	side: nane	s, ent or
Low risk activities: activities done with a mask and an effective d and <10 people (all three conditions must be met)	istan	cing	of >	1.5 n	neter
High risk activities: activities done with a mask but without the podistancing > 1.5 meters or with crowds of >= 10 people, and activition continuous use of a mask is not feasible (one or more of the three	ossibil /ities e cor	ity of in wł nditio	effe nich ns is	ctive the not r	e net).
Notes					
[1] Interregional travel to regions that have reached Stage 4 is all stages 2, 3, and 4.	lowe	d fro	m re	gions	; in

The transition between stages will be guided by the epidemiological indicators used by I-COVID.





STAGES 1 TO 4: DETAILED DESCRIPTION STAGE 1

Allowed:

- Outdoor activities by individuals or household members.
- Beginning of face-to-face classes in kindergartens and elementary schools on a voluntary basis, complying with safety protocols and in agreement with the educational communities.
- Reopening of public transport and national air travel for essential activities.

• People are allowed and encouraged to leave their homes for outdoor recreation and exercise, in the company of their household members, support group, or regular visitors in the case of people living alone.

• Activities in low-risk open spaces (e.g. commercial and productive activities outside and religious services outside with reduced capacity).

Maintained:

- Restriction of meetings and movement at night (22:00 05:00).
- Telecommuting.
- Restriction of non-essential inbound and outbound international travel.

STAGE 2

Allowed:

- Outdoor meetings of up to 10 people.
- Return to secondary school and university classes on a voluntary basis, complying with safety protocols and in agreement with the educational communities.
- Medium-risk activities in open spaces (e.g. theatres, restaurants, bars, cafes).

Maintained:

- Restriction of meetings and movement at night (00:00 05:00).
- Remote work.
- Restriction of non-essential inbound and outbound international travel.

STAGE 3

Allowed:

- Outdoor social gatherings of up to 30 people (e.g. weddings, funerals, ceremonies).
- Medium-risk activities in enclosed spaces (e.g. commerce, religious services).
- Freedom of assembly (complying with the allowed capacity) and free movement at night.

Maintained:

- Remote work.
- Restriction of non-essential inbound and outbound international travel.





STAGE 4: TERRITORIAL BUBBLE

The **territorial bubble** is a tool designed to prevent an increase in viral circulation in a territorial unit which has already controlled community circulation. The main indicator to enter this stage is an incidence rate lower than or equal to 3 cases per 100,000 inhabitants on a moving average.

The territorial bubble will require:

• Strict implementation of sanitary borders, with controls similar to those used at international borders. Key measures include: the requirement of well-founded reasons for entering the area, the completion of a vaccination schedule at least 14 days before entering, a negative PCR test performed within the last 72 hours, a viral antigen test at the control point, a requirement to quarantine upon entering the area and to show a negative PCR test before leaving quarantine to control the asymptomatic population in which antigen tests have lower sensitivity.

• **Deployment of an active test-trace-isolate programme** to avoid new outbreaks. This requires dedicated resources and thorough preparation. The programme will determine: the costing of tracing units at the Primary Health Care level, a secure long-term budget, guidelines and support for the municipalities so that they reach their isolation targets, methods of tracing suspected cases, and timely use of technology to identify contacts and promptly indicate quarantines when needed.

Within the territory bubble, there are no restrictions on social contact.

OTHER PRIORITY MEASURES

This proposal addresses the most urgent and actionable measures. In the coming weeks, after sharing this document with other stakeholders and receiving their feedback, we will address other elements relevant to controlling the pandemic, such as:

Risk communication strategy: It is essential to improve the way risk is communicated to the general public. In particular, it is crucial to communicate the distinction between low-, medium-, and hi-gh-risk activities. Specialists in this area will join the Strategy Team and help train spokespeople.

Risk mitigation strategy for enclosed spaces and other high-risk activities: It is impossible, especially during winter, to completely suppress activities in enclosed spaces and other high-risk activities. However, there is growing evidence on the transmission of the virus through aerosols and on the fundamental role that ventilation plays in reducing the risk of contagion. Therefore, it is essential to improve the ventilation of enclosed spaces, adjust building capacities according to their ventilation levels, and determine the type of masks required according to ventilation levels.





REFERENCES:

1. COVID-Local.org, 2020; Global Health Institute Harvard, 2020; https://data.sfgov.org/stories/s/ epem-wyzb, Sn Francisco Gov, 2020

2. Rudan I. Evaluating different national strategies to contain the COVID-19 pandemic before mass vaccination. J Glob Health 2021; 11: 01004.

3. Baker MG, Wilson N, Wilson N, Blakely T, Blakely T. Elimination could be the optimal response strategy for covid-19 and other emerging pandemic diseases. BMJ. 2020; 371: m4907.

4. Laydon DJ, Mishra S, Hinsley WR, Samartsidis P, Flaxman S, Gandy A, Ferguson NM, Bhatt S. Modeling the impact of the tier system on SARS-CoV-2 transmission in the UK between the first and second national lockdowns. BMJ open. 2021; 11 (4): e050346.

5. Hunter PR, Brainard JS, Grant AR. The Impact of the November 2020 English National Lockdown on COVID-19 case counts. medRxiv. 2021

6. Salje H, Tran Kiem C, Lefrancq N, Courtejoie N, Bosetti P, Paireau J, Andronico A, Hozé N, Richet J, Dubost CL, Le Strat Y, Lessler J, Levy-Bruhl D, Fontanet A, Opatowski L, Boelle PY, Cauchemez S. Estimating the burden of SARS-CoV-2 in France. Science (New York, NY). 2020; 369 (6500): 208-211.

7. Chiesa V, Antony G, Wismar M, Rechel B. COVID-19 pandemic: health impact of staying at home, social distancing and 'lockdown' measures-a systematic review of systematic reviews. Journal of public health (Oxford, England). 2021

8. Drury J, Mao G, John A, Kamal A, Rubin G, Stott C, Vandrevala T, Marteau T. Behavioral responses to Covid-19 health certification: A rapid review. ResearchSquare. 2021

9. Okell LC, Verity R, Watson OJ, Mishra S, Walker P, Whittaker C, Katzourakis A, Donnelly CA, Riley S, Ghani AC, Gandy A, Flaxman S, Ferguson NM, Bhatt S. Have deaths from COVID-19 in Europe plateaued due to herd immunity?. The Lancet (London, England). 2020; 395 (10241): e110-e111.

10. Haug N, Geyrhofer L, Londei A, Dervic E, Desvars-Larrive A, Loreto V, Pinior B, Thurner S, Klimek P. Ranking the effectiveness of worldwide COVID-19 government interventions. Nature human behaviour. 2020; 4 (12).

11. Fowler JH, Hill SJ, Obradovich N, Levin R. The Effect of Stay-at-Home Orders on COVID-19 Infections in the United States. medRxiv. 202

12. Fowler JH, Hill SJ, Obradovich N, Levin R. The Effect of Stay-at-Home Orders on COVID-19 Infec-





tions in the United States. medRxiv. 2020.

13. Rawson T, Huntingford C, Bonsall MB. Temporary "Circuit Breaker" Lockdowns Could Effectively Delay a COVID-19 Second Wave Infection Peak to Early Spring. Frontiers in public health. 2020; 8: 614945.

14. Bulfone TC, Malekinejad M, Rutherford GW, Razani N. Outdoor Transmission of SARS-CoV-2 and Other Respiratory Viruses, a Systematic Review. The Journal of infectious diseases. 2020.

15. Prakash MK. Eat, Pray, Work: A Meta-analysis of COVID-19 Transmission Risk in Common Activities of Work and Leisure. medRxiv. 2020.

16. Liu T, Gong D, Xiao J, Hu J, He G, Rong Z, Ma W. Cluster infections play important roles in the rapid evolution of COVID-19 transmission: a systematic review. International journal of infectious diseases: IJID: official publication of the International Society for Infectious Diseases. 2020; 99: 374-380.

17. Grekousis G, Liu Y. Digital contact tracing, community uptake, and proximity awareness technology to fight COVID-19: a systematic review. Sustainable cities and society. 2021; 71: 102995.

18. Megnin-Viggars O, Carter P, Melendez-Torres GJ, Weston D, Rubin GJ. Facilitators and barriers to engagement with contact tracing during infectious disease outbreaks: A rapid review of the evidence. PloS one. 2020; 15 (10): e0241473.

19. Ayouni I, Maatoug J, Dhouib W, Zammit N, Fredj SB, Ghammam R, Ghannem H. Effective public health measures to mitigate the spread of COVID-19: a systematic review. BMC public health. 2021; 21 (1): 1015.

20. Greenhalgh T, Jimenez J, Tufekck Z, Firsman D, Schooley R. Ten scientific reasons in support of airborne transmission of SARS-CoV-2. April 2021. Lancet.

21. Oliu-Barton M, Pradelski B, Aghion P, Artus P, Kickbusch I, Lazarus J. SARS-CoV-2 elimination, not mitigation, creates best outcomes for health, the economy, and civil liberties. The Lancet, April 28, 2021.

