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Security Nexus Perspectives

INCREMENTAL COMMUNITY-BASED EXIT STRATEGIES FOR INITIATING AND REMOVING COVID-19 LOCKDOWNS

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Many nations across the Asia-Pacific have implemented guidelines for social distancing and introduced lockdowns to control COVID-19. However, now many leaders face the question of how they will be able to relieve their communities of the protective constraints in place. Who decides when safe is 'safe enough', or what level of residual risk is acceptable? Getting this wrong is something no leader can afford. By applying a community-based incremental approach to the easing of lockdowns, tailored to demographic and social stratifications of risk, much of the guesswork can be eliminated.

Social restrictions implemented during epidemics must strike a balance between cost and benefit. While disaster management is a discipline marked by uncertainty, and practitioners always anticipate data gaps and imperfect information, the COVID-19 pandemic has many unique planning challenges that affect decision makers' confidence. Leaders find themselves faced with a double-edged sword wherein acting with too much force or speed may trigger undue financial hardship while waiting for better data risks hidden spread of disease and the potential failure of healthcare systems.

Just weeks into the crisis now, government control efforts have already transformed life in profound ways. The costs are quickly adding up to trillions of dollars. Saving lives and protecting the public health system from excess stress has been the primary objective of every state and local government as they grapple with how to manage this crisis. Where they have diverged has been in determining the point at which collateral costs are deemed too excessive.

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Lessons learned from previous epidemics, including the outbreaks of SARS in 2003 and MERS in 2015, revealed that incremental risk-based measures were effective at controlling an epidemic without having to completely shut down a society. In the current pandemic, several places – including Taiwan, Vietnam, and the Republic of Korea – applied this approach with the rapid implementation of a system of case identification, tracing, and control. However, in comparison, the United States faced unique challenges due to a large population, geographical landmass and frequency of transport. The country now has widespread geographic dispersion and was left with no choice but to take the blunt approach of an extended lockdown, as the only path to containment.

As the positive results of the lockdowns become evident, past lessons can be drawn on to develop a strategy of incremental easing that rebalances economic costs and health risks. Communities are not homogenous. For nearly all hazards, including the current COVID-19, risk affects different groups differently. For instance, children and young adults with no significant underlying conditions have reactions to COVID-19 on par with mild influenza. However, for those with underlying health conditions, who are older, or who face higher dosages of the virus (e.g., medical workers), the disease is much more lethal. This is how risk managers pragmatically identify and implement the best mitigation for each stratification of society, recognizing that there are few ‘one size fits all’ options.

Easing of protective restrictions must not be considered as a great ‘On-Off’ switch. In managing any risk, government and society have options that balance the costs incurred with the benefits enjoyed. With health risks, social stratifications are applied to tailor measures. Cancer screening guidelines are a widely-understood application of these principles – although all ages can be affected by cancer, only those beyond certain ages or with certain conditions are recommended to pursue screening or other interventions. With COVID-19, similar principles would enable easing of restrictions in a way that protect all citizens equally.

For some populations, easing is not possible until: 1) an effective vaccine is developed; 2) an effective treatment is developed; or 3) community-wide immunity is achieved to reduce the risk to acceptable levels for all groups. Based on the behavior of this particular virus, as demonstrated in the data that has been collected from fatalities, these individuals will require extensive protections including ongoing self-quarantine. A blend of national and community-based programs, inclusive of delivery of food and medicine, provision of a specialized medical care environment, social support, financial assistance (for basic living expenses), and more, will be required. Highly vulnerable groups include the elderly, those with underlying conditions, and those in special social arrangements that increase the risk of rapid transmission (e.g., prisons).

For all other groups, in communities where there is no indication that active transmission is happening, easing will become possible with modified social distancing measures in place. Schools, houses of worship, restaurants, nonessential stores, parks, government services, and other key facets of the community will again become accessible. Important modifications such as limiting the number of tables in a restaurant, blocked seating in movie theaters, and limitations on activities that excessively increase transmission risk (e.g., concerts, parades, festivals).

At first, the incremental easing would be limited. This would be triggered when national or state-level risk continues to fall due to ongoing pandemic control measures, so will the scope of restrictions. If, however, a positive case of COVID-19 is detected, further transmission is immediately addressed through contact tracing and mandatory self-quarantine for anyone potentially exposed. Thresholds for action are pre-established, triggering action without the need for deliberation. For example, if a student tests positive, all students in the affected class are required to self-quarantine. If despite these measures, another student in the same school subsequently tests positive, the whole school, for example, may close for four weeks. If this occurs in multiple schools, or if a threshold number in the community is reached, incremental easing may be reversed, coupled with identification, tracing, and control using testing.

Population sampling and risk-tailored interventions are key to the incremental easing of COVID-19 lockdowns. However, the question remains how can this been implemented? A systematic process, underpinned by the US Centers for Disease Control and Prevention 10 Essential Environmental Public Health Services, provides a template. These services protect and improve public health using three core functions: assessment, policy development, and assurance. Situational assessments are currently underway, leading to tremendous building of knowledge and confidence in addition to evolving strategies, concepts, and ideas that support incremental re-opening. Assurance measures, which include linking people with services and informing regulations, are in place. What is required are community-based thresholds to determine when leaders can ease lockdowns.

An interdisciplinary cross-sector approach will be required to develop and implement incremental easing of COVID-19 lockdowns. This must be informed, but not controlled by public health experts, as such policies will require the perspective of and buy-in from all components of society and focus on minimization of harm across the entire population. This approach reflects the *Social Determinants of Health*, which are nationally and internationally recognized drivers for a healthy society. In addition to establishing economic recovery and stability, key areas the model would address include resumption of education, social and community foundations, health and health care systems, and neighborhood and built environments. All such elements are required for an effective and sustainable COVID-19 response and recovery.

A systematic way to engage all sectors and develop a best-practice re-opening plan would be the rapid application of relevant parts of the [Disaster Resilience Scorecard for Public Health](#) (Table 1). This scorecard was recently developed by a group of interdisciplinary experts from around the world, supported and facilitated by the United Nations Office for Disaster Risk Reduction. The scorecard is a new addendum to the Disaster Resilience Scorecard for Cities, which has been successfully applied worldwide.

Table 1: Selective parts of the Disaster Resilience Scorecard for Public Health related to lockdown assessment

#	Assess
A1.1/9.2	Governance mechanisms for disaster risk and emergency management include public health professionals
A2.1	Disaster risk planning includes public health emergencies
A2.2	Consideration of public health impacts arising from other disasters
A3.1	Funding earmarked for addressing public health implications of disasters
A6.1	Sufficient, skilled health professionals to maintain public health around disasters
A6.2	Public health data shared with all stakeholders that need it
A7.1	Communities are prepared to maintain public health levels after a disaster
A7.1.2	Community can access and trust public health information
A8.1	Existence of health infrastructure besides hospitals (E.g., isolation, clinics, labs, supplies)
A8.2	Health facilities can manage a surge of patients
A9.1	Early warning systems exist for impending healthcare emergencies
A9.5	Existing stockpile of public health items, PPE, medications and equipment

It provides government leaders and crisis managers with a mechanism to collaboratively and systematically rank and prioritize preparedness and readiness of the community’s public health functions, infrastructure, and services. This includes pandemics, supply chain management, and vulnerable group management.

Rapid application of these elements of the scorecard would require a multidisciplinary approach that incorporates social determinants and essential public health services, which are vital for population sampling, risk-tailored interventions, and a whole of society approach to incremental easing of lockdowns (Figure 1). This may provide a mechanism for collectively determining when it's ‘safe enough’ to loosen up elements of a lockdown. Further thought is required to determine exactly what data triggers a decrease or increase in an element of a lockdown.

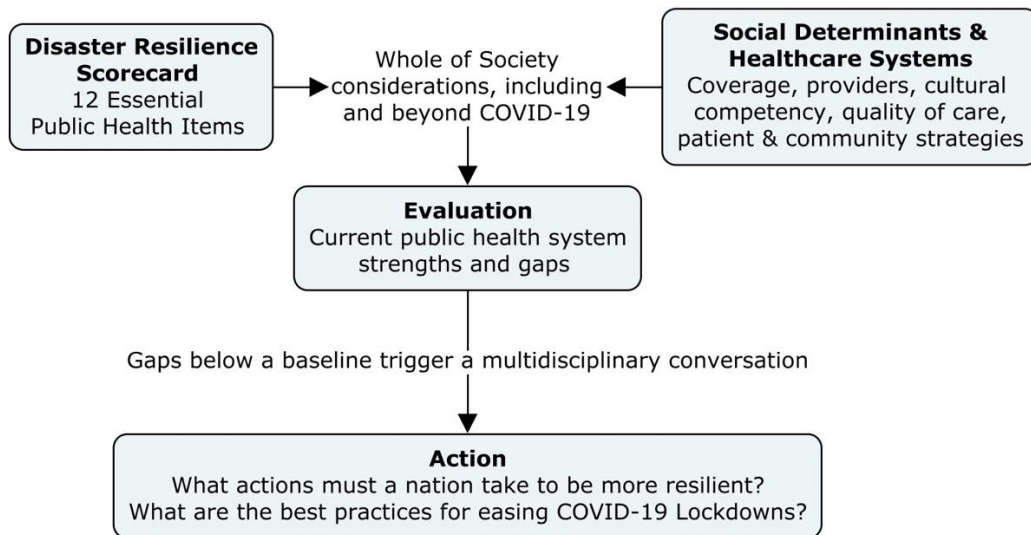


Figure 1 – Process for developing Community-Based Exit Strategies for COVID-19 Lockdowns

It is important to note that such measures have been tried and tested with high levels of success in outbreaks of SARS, MERS and Swine Flu, as well as with COVID-19. The Republic of Korea, which is managing the disease using an incremental lockdown approach has been able to stay open with little to no protective restrictions. Many nations across the world are now delicately balancing the high cost of prevention through lockdowns with the incalculable benefit of lives saved. There is evidence now on how to incrementally ease COVID-19 lockdowns and there must now be action to plan, prepare, and collectively determine when it will be 'safe enough' to incrementally ease lockdowns.

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