



POLICY BRIEF

GOVERNING DIAGNOSTICS: COVID-19 AND THE G20



Task Force 4

SOCIAL COHESION AND THE STATE

Authors

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موجز السياسة التشخيص الحكومي: كوفيد-١٩ ومجموعة العشرين

فريق العمل الرابع
التماسك الاجتماعي والدولة



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ABSTRACT

This policy brief stresses the importance of diagnostics as effective first-line defenses against the transmission of pandemic diseases such as the coronavirus disease (COVID-19). National governments cannot always be relied upon to ensure timely access to diagnostics during a pandemic. Hence, we propose the creation of a global coordinating platform for diagnostics preparedness, whose mission it would be to ensure the timely availability and access to diagnostics during a pandemic. The Group of Twenty is an ideal forum for initiating dialogue about the creation of such a coordinating platform. It should promote multilateral collaboration, which is key for the global governance of diagnostics.

يُشدد ملخص السياسة هذا على أهمية التشخيصات بوصفها دفاعات فعالة في خط المواجهة ضد انتقال الأمراض الوبائية كمرض فيروس كورونا (كوفيد-19). ولا يمكن الاعتماد دائمًا على الحكومات الوطنية لضمان الوصول إلى التشخيصات في الوقت المناسب في أثناء الجائحة. وبالتالي، فنحن نقترح إنشاء منصة تنسيق عالمية لجاهزية التشخيصات تكون مهمتها ضمان توافر التشخيصات والوصول إليها في الوقت المناسب في أثناء الجائحة. وتُعد مجموعة العشرين منتدى مثالي لبدء الحوار بشأن إنشاء مثل هذه المنصة التنسيقية. ومن شأن هذه المنصة تعزيز التعاون متعدد الأطراف، والذي يُعد أساسيًا لحوكمة التشخيصات عالميًا.



CHALLENGE

Social cohesion is a complex construct that refers to the net effect of shared values, shared participation, and shared acceptance (pluralism, tolerance etc.) on the achievement of the universal values of human dignity, freedom, equality and solidarity (Jenson 1998). Social cohesion also concerns individual perceptions of being included (Boarini et al. 2018). This also depends partly on the availability of institutions to represent and safeguard the various components of social cohesion. We argue that shared values, shared market capacity (e.g., the opportunity to participate in the economy), shared participation, and shared acceptance can be compromised due to the coronavirus disease (COVID-19) pandemic.¹ The adverse impacts can intrinsically stem from the disease (the direct effects), or from the remediation action taken by various state and non-state entities (the indirect effects). Intrinsically, the disease undermines shared participation and shared market capacity. Precautionary lockdowns, to contain the spread of the disease, restrict interdependence and interaction among people.² The more protracted the disease and the precautionary measures, the wider are the social, economic, and health gaps.

The capacity of countries to sufficiently test their populations is essential to interrupting disease transmission. The divergent experiences of the United States and South Korea illustrate that testing can be the difference between containment and catastrophe. In both countries, the pandemic began with similar trajectories with the number of confirmed cases increasing at a comparable rate (91-DIVOC n.d.). The South Korean government quickly took action to create a market for rapid innovation and fulfillment of testing demand. Meanwhile, the US delayed government intervention, which left markets in charge of meeting accelerating demand. The US had performed only about 300 tests per million people by mid-March 2020, in spite of housing ten of the twenty largest diagnostics companies (Sharma 2019). In contrast, despite being home to none of the twenty largest diagnostics companies, South Korea had performed, over the same period, about 6000 tests per million people (Silva and Braunstein 2020).

The pandemic has uncovered the global diagnostics deficit, a long-standing problem of inadequate attention and investment towards ensuring availability and access to diagnostics. While the deficit has multiple causal roots, the most salient one is the absence of a global coordinating mechanism to ensure pandemic diagnostic preparedness. Ensuring timely access to pandemic diagnostics presents a critical and time-sensitive problem at the nexus of state and social cohesion, which calls for effective G20 engagement.

1. However, some empirical research illustrates that, in times of crisis, people rediscover their sense of togetherness. For example, donations to charities have never been as high in Italy as during the COVID-19 crisis. See Calo-Blanco et al. (2017) and Cassar et al (2017).

2. See Appendix.



PROPOSAL

To date, the development of in vitro diagnostics has largely remained an enterprise of the private sector. As a result, their development priorities have been driven by markets that have become highly specialized, often by disease and geographic region. For example, diagnostics markets in Latin America are primarily focused on neglected tropical diseases. In North America and Europe, these are dominated by products for non-communicable diseases. In Sub-Saharan Africa, the markets have become highly specialized to provide HIV- and tuberculosis-related diagnostics. Such specialization, in addition to market presence and concentration, is determined by purchasing power, which selectively excludes populations who lack sufficient purchasing power, but critically need diagnostics to meet their health needs.

There is no market for diseases and pathogens that are prioritized for research and development in public health emergency contexts, under WHO's research and development blueprint. These diseases with pandemic potential currently include Crimean-Congo hemorrhagic fever, Ebola virus disease and Marburg virus disease, Lassa fever, Middle East respiratory syndrome coronavirus (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS), Nipah and henipaviral diseases, Rift Valley fever, Zika, and "Disease X"—the unknown pathogen capable of causing a serious pandemic (Friedrich 2018). The demand for diagnostics for these diseases is sporadic and sudden. Therefore, as a cursory glance would reveal, such markets must first be created. However, the mechanisms that we have depended on to create markets in the past, such as push and pull mechanisms (Mueller-Langer 2013), presume at least a trace level of demand, which does not exist in the case of pandemics. When demand alone is insufficient to create markets, state intervention is often employed. The nature and scale of state intervention is dictated by heterogenous political systems and ideologies. As such, states cannot always be relied upon to create markets with the same swiftness demonstrated by South Korea. Therefore, responsive market creation is not the way forward due to the large inefficiencies associated with market creation and the potential for market fragmentation. However, while intervention is necessary to remedy the absence of a long-term market, such intervention should originate from a global coordinating platform to guarantee universality, concertedness, and efficiency. As an alternative to relying on national governments to ensure the rapid development, production, and deployment of diagnostics during outbreaks, the world needs a global coordinating platform.

We envision a coordinating platform that raises capital, pools and channels that capital towards diagnostics development and manufacturing, enables markets, and guarantees their security. The blueprint for such a platform already exists for vaccine preparedness. The Coalition for Epidemic Preparedness Innovations (CEPI) is a coordinating mechanism that aims to rapidly advance vaccines to late-stage development and facilitate clinical validation, mass-scale manufacturing and stockpiling. The CEPI also ensures market access and market security by improving predictability and minimizing disruptions. The CEPI relies on both traditional and innovative capital; while the former is in the form of large upfront investments through grants by governments and foundations, the latter improves the spending power of such financing, by investing in instruments such as the International Finance Facility for Immunisation (IFFIm). In the event of an outbreak, the CEPI relies on innovative instruments such as Advanced Market Commitments or volume guarantees for rapidly scaling manufacturing. Such innovative instruments can be structured through mechanisms such as the Global Health Investment Fund (GHIF) and InnovFin or as conditional pledges to the GAVI (officially, Gavi, the Vaccine Alliance) and the IFFIm.

This blueprint can be easily replicated for diagnostics. A specialized institution or initiative is needed to bridge research and development with market access. The remaining components can be linked based on the CEPI blueprint. The spending power of such an entity can be extended by investing in the IFFIm. Manufacturing can be responsively scaled up or down using innovative instruments such as Advanced Market Commitments or volume guarantees. These coordinating mechanisms can even leverage the current platform supporting the CEPI, which facilitates a diagnostics-vaccines partnership model relying on a common market access and financing platform, thereby reducing inefficiencies and transaction costs.

Such an arrangement would enrich a burgeoning movement in diagnostics development that we believe to hold great promise in terms of pandemic preparedness. Responsive diagnostics manufacturing relies on a joint partnership between a diagnostics developer and a diagnostics manufacturer and is located in an outbreak hotspot. It can ensure rapid and timely access to point-of-need diagnostics by facilitating self-testing either at home or in the community and thereby curb transmission. Enabling responsive manufacturing, in addition to responsive financing, will greatly enhance the function and reach of a global coordinating platform.

The G20 is an ideal forum for initiating a dialogue about the creation of a “global coordination platform for diagnostic preparedness” (GCPDP). This dialogue can take place under the auspices of the G20 Health Ministers Group and include international organizations such as the WHO and CEPI.

The GCPDP can be conceived as a specialized entity that integrates diagnostic research and development with market access. Its focus will be on advancing diagnostic development, mass-scale manufacturing, and stockpiling. Its objective will be to reduce uncertainty and minimize disruptions, thereby making diagnostics for diseases with pandemic potential more secure, accessible, and dynamic. It will also take the lead in raising and pooling capital to channel towards the rapid development, production, and distribution of diagnostics.

The initial seed funding for the GCPDP can originate from the G20 members and the Global Response pledging initiative (which is co-convened by Saudi Arabia), in addition to innovative financing (the returns from instruments such as IFFIm). In the event of an outbreak, the GCPDP would use instruments like Advanced Market Commitments or volume guarantees, which can be structured through mechanisms such as the GHIF to enable it to quickly scale up production. As policy actions, we propose the following:

- **Enhance global stewardship of the G20 through a declaration from G20 leaders and health ministers on enhanced collaboration in diagnostics preparedness for current and future pandemics.** In the absence of an effective therapy or vaccine, diagnostics remains the single most important tool to fine-tune government action in pandemic preparedness. This will subsequently help in mitigating the adverse socio-economic effects of COVID-19. Moreover, it is in line with the G20 Action Plan “Supporting the Global Economy through the COVID-19 Pandemic” (G20 n.d.).
- **Acknowledge the need for a systematic approach to align the mandates of international institutions and G20 members towards building global capacity in responsive diagnostics development and manufacturing (e.g., through a Responsive Diagnostics Initiative).** Such an initiative should encourage dialogue with the non-G20 members that are playing a critical role in pandemic prevention. It should also involve other actors, such as international health financing institutions, diagnostics developers, national governments, and would be a direct response to the UN resolution on “Global solidarity to fight the coronavirus disease 2019 (COVID-19),” which calls for a mobilization of all relevant actors for a coordinated global response to the pandemic and its socio-economic consequences (United Nations 2020).

- **Facilitate a coordinated multi-sector approach, for example, through the creation of a GCPDP.** Such a platform is essential to link the required financing with diagnostics developers and manufacturers and to negotiate global policy. The aim of such a coordinating platform is to rapidly advance diagnostics development and manufacturing in the absence of market mechanisms. Hence, the creation of such a platform would be aligned with the 2030 UN Sustainable Development Goal on strengthening the capacity of all countries, in particular developing countries, for the early warning, risk reduction, and management of national and global health risks (United Nations n.d.).
- **Initiate a stock taking of the global diagnostics landscape to support the creation of a Global Coordination Platform for Pandemic Diagnostics.** Such a stocktaking can evaluate the suitability of existing institutions to function as coordinating entities and provide valuable guidance for the design of the architecture that will link the core functions and entities of the coordination platform. Such an assessment must consider the potential of institutions such as the Foundation for Innovative New Diagnostics (FIND), which aims to catalyze the development of diagnostics, guide policy and use, and accelerate access, while shaping the agenda to improve the understanding of the value of diagnostics and to strengthen the commitment to funding and use. We believe that FIND is well suited to function as a coordinating entity, whose purview can be expanded to become the global coordination entity.

In conclusion, the G20 and its member nations, should exercise leadership in the global governance of diagnostics through:

- (a) signaling of political support for coordinated global pandemic preparedness via ministerial declaration and communiqués,
- (b) supporting international organizations in the fight against pandemics, and
- (c) establishing a Global Coordination Platform for Pandemic Diagnostics that enables rapid advancements in diagnostic development and manufacturing in the absence of market mechanisms.

In this manner, the G20 should play a central role in shaping the future direction of global pandemic preparedness by reviving multilateral collaboration, which is expected to strengthen the capacity of individual countries in realizing their goal of re-opening their economies.

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Disclaimer

This policy brief was developed and written by the authors and has undergone a peer review process. The views and opinions expressed in this policy brief are those of the authors and do not necessarily reflect the official policy or position of the authors' organizations or the T20 Secretariat.



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APPENDIX

COVID-19 Government Responses and Community Mobility Changes

A new set of data from Google Maps Community Mobility Reports reveals the comprehensive scope of universal social distancing, quarantines, and general travel bans among G20 member countries. Figure 1 illustrates the changes in movement trends among G20 member countries across different categories of places such as retail and recreation, groceries and pharmacies, parks, transit stations, and workplaces. Changes for April 5 are compared to a baseline median value for the corresponding day of the week, during the five-week period of Jan 3–Feb 6, 2020. For example, as of April 5, there was a 95% drop in visits and length of stay in retail and recreation points³ in Italy, whereas during the same time, the drop was only 17% in South Korea. All G20 members—with the exception of South Korea and Germany—experienced significant drops in visits and length of stay in places like national parks, public gardens, and plazas.

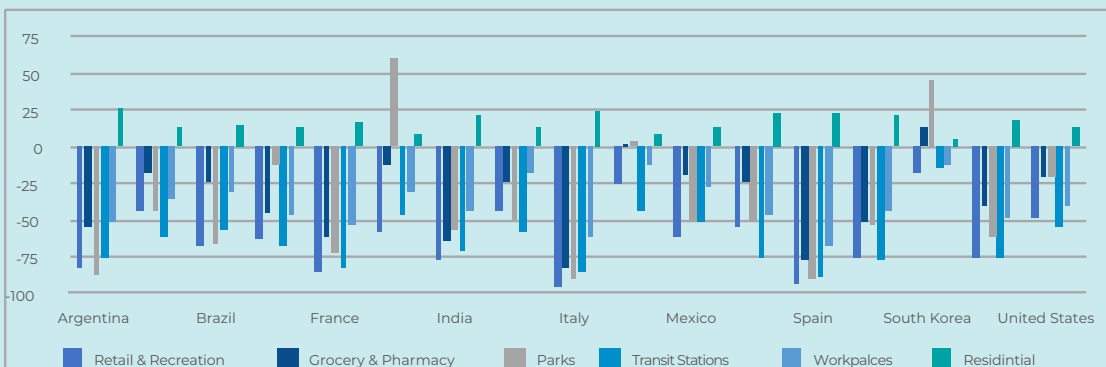


Figure 1. **Mobility Changes among G20 members (as of April 5, 2020)**

Source: **Google Maps Community Mobility Reports.**

Note: **Russia and China are not included.**

3. Recreation points refer to restaurants, shopping centers, theme parks, museums, libraries, and movie theaters.



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