CPPG Policy Brief*

Ensuring an Equitable Distribution of the Covid-19 Vaccine in Pakistan

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Abstract: This study anticipates the possible challenges that are likely to arise as the Covid-19 vaccine is developed and distribution mechanisms are designed across governments. More specifically, it critically explores the governance aspects the Pakistani leadership should be considering while developing a Covid-19 vaccination program. It argues that equitable distribution be the guiding objective of such a program and this implies that the program is built around principles of anticipatory governance, relies on evidence-based decision making, and that invests in public health programs that are inclusive and representative of the Pakistani population’s varying sociocultural, economic and health needs.

Introduction

Since the outbreak of the Covid-19 pandemic in late 2019, the most pressing concern has been the development of a life-saving vaccine. Research and laboratory trials began in January 2020 and by March of 2020, safety trials in humans had already begun. In July 2020, the American company Moderna began Phase III of the vaccine trials, which will be indicative of how effective the drug is in immunizing people. This accelerated the race for producing the drug/vaccine and companies such as the British-Swedish company AstraZeneca and the University of Oxford, the Chinese companies Sinopharm and Sinovac and Murdoch Children’s Research Institute in Australia have all entered Phase III of vaccine trials.

Earlier experiences with infectious diseases have shown that it can take several years after the disease was first discovered for a vaccine to be developed. The mumps vaccine is one of the few that were created fairly quickly—within approximately four years. If a Covid-19 or severe acute respiratory

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2 Ebola was first detected in 1976 but vaccines only became available after it was considered a global threat in 2014, and that too as a result of investments in biodefense. The Ebola vaccine still needs to undergo WHO prequalification which is expected this year.


syndrome coronavirus 2 (SARS-CoV-2) vaccine becomes available by the end of 2020, as is predicted, it will be one of the fastest developed drugs in history.\(^4\)

Once a vaccine is successfully tested, the next concern will entail its distribution. In Pakistan, several factors will determine how efficient this process is. First, the accessibility to the vaccine will, like many developing countries, depend on the ease through which patents of the vaccine are shared. Currently, the Covid-19 vaccine is being developed by innovation-driven economies such as UK, the US or China, many of which have already placed advanced orders to inoculate their own populations. Second, once a vaccine is made available, Pakistani policymakers will have to determine the vaccination process; which groups of people will receive the immunization first, what will the timeline of the vaccination program be and at what user-cost will the drug be administered? The key policy decisions will therefore revolve around the issue of distribution and how equitable it is.

The World Bank conceptualizes equity based on the idea of “equal opportunities” whereby people can expand their life choices without having to face social, financial, health or other deficiencies. Moreover it argues that, “institutions and policies that promote a level playing field—where all members of society have similar chances to become socially active, politically influential, and economically productive—contribute to sustainable growth and development.”\(^5\) Likewise the WHO refers to equity as “the absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically.”\(^6\) In other words policies that aim for equity, take into consideration the various factors that can act as barriers to an individual or community’s development outcomes, and then target decisions accordingly. Pakistan’s sociocultural, economic and governance system presents various forms of inequality that will make achieving equity a challenge. Accessibility to health services is largely determined by locality, income-level, and ethnicity.

Health equity is particularly essential given that health outcomes are determining factors of nations’ related development indicators such as education and skills development, levels of innovation, or even the strength of institutions of justice. Health therefore has an “instrumental” function towards other welfare outcomes.\(^7\) Healthy populations are more likely to have higher human capital levels, be more economically productive and are better equipped to respond to dynamic sociopolitical and governance challenges.

With the outbreak of the Covid-19 pandemic, the conversation amongst public policy circles has rightly turned towards how well countries’ health systems are equipped to adapt to the threats a public health crisis poses. Thus, acknowledging the fact that public health is inevitably a crucial determinant of economic growth and development. Some have even argued that this is a unique political opportunity for leaders to come forward, perform radical reforms in their health systems and emerge as “health heroes”.\(^8\) Investing in public health infrastructure is not only a tool to ensure people’s

\(^4\) According to Mark Suzman, President of the Bill and Melinda Gates Foundation, founders of GAVI, the Vaccine Alliance, has claimed that research into the COVID-19 vaccine can yield results in just about 12 months.


welfare is secured, but also to ensure a future pandemic is avoided and resources remain productively utilized in moving the economy forward. A report by McKinsey Global Institute\(^9\) estimates that in a typical year, poor health costs the global economy a reduction of 15% of GDP. Conversely by 2040, each dollar invested in health, will yield a 2-4$ economic return—a 12 trillion$ increase in the global GDP. This expansion can be explained through a reduction in chronic disease burden and through an expansion of people’s productive capacity. Furthermore, as life expectancy improves so does the size of the global labor force.\(^10\) With the Covid-19 pandemic, many countries responded by putting their economies into lockdown, closing several industries in order to curb the rapid spread of the disease. As a result, the economic reverberations have been immense, particularly with respect to the impact on the labor force. In Pakistan alone, unemployment is likely to increase with up to an additional 18 million people unemployed\(^11\), while a GDP loss of 2.4% has been estimated.\(^12\) Around 71 per cent of Pakistan’s non-agriculture employment is in the informal sector, additionally, many daily-wage workers are undocumented and therefore have no access to social safety nets including health insurance.\(^13\) Moreover, around 50 per cent of Pakistani households’ sustenance depend on the agriculture and livestock sectors which have been categorized as the most ‘acute vulnerable groups’ given the disruptions in transportation, raw material supplies and availability of labor that have resulted from the spread of the pandemic.\(^14\) Opening up the economy and returning to work is urgent in order to sustain people’s livelihoods and welfare—and the successful discovery of a safe and accessible vaccine is essential for that.

**Serious Challenges to Equitable Distribution**

**Governance capacities, socioeconomic frameworks and the role of leadership**

When a vaccine is made available, a practical consideration is its distribution, amongst nations and at the subnational level. Internationally, our greatest challenge is working on a distribution mechanism that recognizes that governance capacities and socioeconomic frameworks vary across nations. For instance experiences with social and physical distancing have differed tremendously from nation to nation. Labor market structures, the level of economic digitization and even cultural dynamics are factors that impact the management of the pandemic. Likewise, leaders’ ability to conduct international negotiations on securing the right public health resources are likely to be influenced by the size of their economies, their diplomatic clout and the political ideologies they represent.

Similarly, leaders will need to manage the public health demands of their own diverse populations at the subnational level. In **Pakistan health outcomes vary considerably across income groups and geographic locations and this is a result of both local state capacities (in terms of the availability of quality health facilities) but also related factors like education achievement and health seeking behavior. Under-five childhood mortality for example, varies between 91 deaths per

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\(^10\) Ibid, p.vi and p.4.


1000 births to 38 deaths per 1000 births for mothers with no education to mothers with higher education respectively. \(^\text{15}\) Geographic location is another major determinant of health outcomes—consider vaccination coverage for children aged 12-23 months, which varies from as low as 30% in FATA to around 80% in Punjab. \(^\text{16}\) These statistics suggest the high levels of health inequality that exist in Pakistan and are indicative of the challenges that characterize equitable and quality healthcare delivery in the country.

Similarly demographic profiles and familial structures vary; intergenerational households make it difficult to protect the more vulnerable age cohorts. The average household size in Pakistan is 6.45 persons, while in some areas this number is even greater, around 7.9 in KPK and 7 in Balochistan. \(^\text{17}\) This compares to an average household size of around 2.7 people in New Zealand for instance, where the pandemic has been curbed to a great extent. \(^\text{18}\) Moreover, the number of people living in a household with limited space restricts the extent to which infection rates can be managed. Staying home and working from home has worked for many nations in flattening the curve but for several developing countries and even some developed ones, this has not been an option.

As a result, while formulating policies aiming to equitably distribute vaccines and medical equipment, decision-makers must address the heterogeneity in the way different communities function.

### Integrating & Owning SDG’s: Coordination & Cooperation—Internationally, Nationally and Locally

One precondition to the equitable distribution of the Covid-19 vaccine is that of coordination and cooperation—internationally, regionally and locally. Goal 17 of the Sustainable Development Goals (SDGs), which Pakistan was one of the first countries to adopt, calls for ‘Building Partnerships for the Goals.’ This foremost implies that in the development phase of life-saving drugs and vaccines there is transparent information and technological sharing. Expectedly, issues with respect to Intellectual Property rights and licensing acts as serious barriers to how vaccines will be made available and shared across the world. The Trump administration’s intent of buying off up to three months’ supplies of the pharmaceutical company Gilead’s, therapeutic medicine Remdesivir for use in the US, has international implications. \(^\text{19}\) While Remdesivir has been licensed for production outside the US, such a step symbolizes another form of nationalism—‘vaccine nationalism’ as some analysts describe, \(^\text{20}\) which goes against principles of equality and inclusivity. It indicates a return to unilateralism, when conversations about global partnerships and cooperation should instead be taking place. This, in

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addition to laws in countries like the US and the UK, that prevent the export of drugs essential for use during a public health emergency, also means serious shortages in global production. Consequently, leaders across nations and within the countries will need to devise licensing agreements between pharmaceutical companies in a manner that discourages such protectionist behavior, so that the objective of equity is not compromised.

Pakistan’s endeavor to gain access to the Covid-19 vaccine has progressed to the creation of a National Vaccine Taskforce with the goal of ensuring the vaccine is equitably and reliably shared across the country. Setting up an authority to lead the process is an important step forward, however a comprehensive program needs to be developed that tackles the geographic, cultural and governance challenges that have hampered previous health programs in the country. Moreover, developing an efficient pricing mechanism will be crucial to ensure that no Pakistanis are left behind in our quest for universal health coverage (SDG 3: Ensure healthy lives and promote wellbeing for all at all ages). In a country where accessibility to quality healthcare is significantly impacted by the associated expenditures, a publicly subsidized Covid-19 vaccine program will be necessary to eradicate the pandemic and minimize the adverse socioeconomic costs.

As a report by the OECD maintains, in order to avoid bidding wars and inflated prices, governments will need to effectively manage supply mechanisms through which the vaccine is allocated to the maximum number of people possible in a timely manner. This also entails determining logical price controls that can help ensure accessibility for all. This will be a fundamental determinant of how equitable the process will be and the extent to which nations are willing to look beyond their political economy gains and focus on saving lives and livelihoods.

Resultantly, the Pakistani government must engage and coordinate efforts with international organizations such as the WHO or GAVI alongside pioneering pharmaceutical companies to ensure they are prepared for procurement and distribution when a vaccine comes out. A virtual roundtable discussion by The New York Times unanimously indicated that biomedical research organizations and regulatory authorities were showing “unusual urgency and cooperation among scientists”. Such engagements are welcome and must be built on in the fight against Covid-19. In Pakistan, there is news that the state owned pharmaceutical company; China Sinopharm International Corp. has invited the National Institute of Health in Pakistan for the possibility of conducting clinical trials of the Covid-19 vaccine it is developing. Such a trial would make Pakistan one of the first countries to partake in a Covid-19 vaccination program but this would demand strategic coordination between key stakeholders including the Ministry of National Health Services, the Drug Regulatory Authority of Pakistan, the statistical and national database departments, local government offices, health facilities and health workers across the country and even the print and electronic media.

While building partnerships and cooperation at the international level, the public health infrastructure must be strengthened at the national and subnational level. More specifically, it is essential that the

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government focus on reaching the most vulnerable communities through publicly financed programs on sanitation, personal protection equipment, medicines and vaccines. This can be achieved through an integrated health response that manages to safeguard the interests of all relevant stakeholders through participatory and representative policy-making.

Investing in public health infrastructure will yield benefits that have far reaching effects beyond the health sector. This exercise requires considering possibilities of public-private partnerships, including through international aid agencies, and philanthropic foundations. Already biomedical research centres, pharmaceutical companies and development foundations such as GAVI the Vaccine Alliance, The Coalition for Epidemic Preparedness Innovations (CEPI), and WHO are proactively calling for a culture of open sharing in terms of both biomedical knowledge and technical public health data. These collaborations will be significant when it comes to building countries’ technical, administrative, organizational, and managerial absorptive capacities—especially when the adaptability curve for Covid-19 management is likely to be very steep for developing countries such as Pakistan.

**Mapping Exercises and Maintaining Effective Population Databases**

Before a vaccine becomes available, we need to conduct effective and transparent mapping exercises that will allow us to determine infection hot spots based on geographic and demographic indicators. Mapping exercises will also help us locate the ‘highest risk’ populations that the vaccine will be administered to. The Population Census 2017 and housing censuses can act as the cornerstone of such a mapping exercise. Enumerating indicators such as the number of people in a region, their geographic density and their demographic traits such as gender, age, ethnicity are fundamental not only for administrative purposes like urban city planning, but also to implement essential public health policies such as geo-fencing that has been a popular strategy to manage Covid-19 in several countries. Similarly, public health services such as child immunization, the procurement of medicines and the construction of health facilities depend heavily on the availability of updated statistical resources.

The United Nations’ Department of Economic and Social Affairs Statistical Division outlines guidelines on conducting population censuses and suggests that a population census take place every ten years. It also stipulates that some countries may find it beneficial to conduct censuses more frequently, particularly when they have rapidly changing population circumstances. In Pakistan, the penultimate population census took place in 1998; it took another nineteen years until the next census was conducted in 2017. In order to design and implement evidence-based public policies, it is imperative that demographic data be collected in a timely, coherent and thorough manner and understood alongside Pakistan’s dynamic topographic and territorial features. Government authorities such as NADRA have been fairly successful in conducting citizen registration and have relatively kept pace with adopting digitization technologies. The technical expertise of these authorities can be relied on to further strengthen our enumerating procedures.

**Developing Distribution Mechanisms based on principles of Anticipatory Governance**

During the H1N1 (Swine Flu) pandemic that hit in early 2009, the WHO established guidelines to facilitate the process of vaccine deployment and sequencing to distribute the vaccine equitably. These guidelines helped galvanize the right resources for a timely response and have indicated that prioritizing the order in which countries received the drugs depended on vulnerability factors such as the existing disease burden, geographic challenges, climactic preconditions and the severity of a

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pandemic’s impact on public health infrastructure. Building on guidelines such as these will consequently help us develop distribution mechanisms that are both efficient and effective.

In addition to following international recommendations, Pakistan will foremost need to work towards building its health crisis preparedness. This entails analyzing the entirety of the policy framework that will lead to an equitable distribution of essential public health resources. The report *Addressing the Public Health Crisis* of the Global Town Hall of the Think Tanks and Civil Societies Program, outlines the importance of adopting “anticipatory governance” in our decision making processes. This demands that governments are able to respond to a specific disaster in time (in this case the Covid-19 Pandemic) by predicting possible threats to an “operational environment” (a country). The idea is to minimize negative spillovers or adverse reactions to a particular policy by evaluating risks and addressing to them accordingly.

Similarly, a study by GAVI outlines potential bottlenecks in the case of the distribution of vaccines. These include unsteady flows of vaccines, cumbersome legal agreements, delays due to quality control or custom clearance and time-consuming regulatory processes. Anticipatory governance would thus require the Pakistani leadership and relevant stakeholders, to work towards mitigating many of these threats before the first few vaccines come out in the coming months. Additionally, there will be a list of risks that are country-specific. In Pakistan, inequalities in terms of physical infrastructure, information and telecommunications technology and human capital are chronic and define several of our human development challenges. These are trends we have to be cognizant of and adapt to when we are still in our planning phase and Covid-19 presents a unique opportunity to develop a concurrent policy response that allows both preventative and corrective measures.

Once specific area to focus on during this period would be Informational Asymmetries, which act as a serious challenge to managing Covid-19. The influx of information following the spread of the pandemic has lead to people acting on myths and false information. Additionally, many communities, particularly in rural areas, have no access to the Internet or even electricity and therefore remain unaware of the health and economic threats of this disease. Furthermore, in communities with high levels of illiteracy and low educational achievements, it is hard for authorities to enforce proper standardized operating procedures (SOPs) and conduct convincing information campaigns where they do not address linguistic barriers. Here it is worth mentioning that extra attention will need to be paid to areas with traditionally low immunization rates. Previous experiences with socio-cultural and religious preconceptions need to be kept in mind while designing our Covid-19 vaccine administration policy. For instance the various misconceptions associated with the polio vaccine have greatly hampered the disease’s eradication in Pakistan. Similarly, since the spread of Covid -19, studies indicate a drop in child immunization rates following the lockdowns. In Karachi, a study by GAVI revealed that the number of daily immunization visits fell by 52.8% when compared to the same number six months before the lockdown began. Moreover outreach services faced a heavier brunt with an 88.6% decrease in immunization doses administered compared to fixed centres, which witnessed a 38.7% drop. Planning ahead, by engaging with private telecommunication companies,

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28 The Centre for Public Policy and Governance is also a contributing author to this report


educational institutes and village authorities to create targeted programs will be crucial to guarantee the Covid-19 vaccination process is a success.

Finally, the role of local government authorities and community-led initiatives are crucial to the fight against Covid-19. Local level policy stakeholders can play an instrumental role in improving the coordination and distribution of vaccines and essential medical equipment. They can create awareness and spread verified information, especially to convince people about the threats of the pandemic and the importance of managing it safely with the recommended best practices. A lot of the success stories with respect to ‘flattening’ the infection curve highlight the importance of an inclusive and participatory policy design format. For instance, India’s southern state of Kerala has been quite successful in enforcing government recommended SOPs and this has to do with empowered local governments and strong community involvement, which helped people understand the severity of the situation. An engaged response also minimized fear and panic and sensitized people on how to adopt the needed behavioral changes. Kerala’s experience also indicates how crucial it is to build a shared vision that everyone is willing to work towards particularly with the understanding that investment in the health sector is critical. Moreover a cohesive strategy has helped build responsiveness and empathy amongst those in leadership positions—essential for effective social policy implementation. These lessons will need to be carried forward with the distribution of vaccines and equipment as well.

In Pakistan, following the 18th Amendment, there continues to be ambiguity surrounding the administrative and managerial role of the lower tiers of government. Moreover, financial and decision-making autonomy remains restricted, limiting the ability of elected officials and street-level bureaucrats to fully execute useful policies. In a Policy Brief titled Pathways to Governance and Civil Service Reform in Pakistan: Federal, Provincial and Local, Saeed Shafqat makes a case for focusing on lower level public officials, arguing that “Training and skills development […] must begin at the lowest levels of government, including ‘street level bureaucrats’ who not only act as the first point of contact between the public and the state, but also act as important agents of feedback to decision-making bodies. With their latter role, lower level government officials provide essential information on loopholes in policy implementation.” Equity can only be achieved if we are aware of the context-specific, local-level challenges and bottlenecks and these feedback loops act as fundamental sources of necessary data that must be capitalized on by the leadership in its quest to formulate a just, inclusive vaccine distribution program.

Summary Recommendations

Pakistan’s Covid-19 vaccination program must be designed around the sole goal of equitable distribution. Based on the preceding discussion, the policy guidelines or recommendations for a Covid-19 vaccine program can be grouped into three main themes; one, adopt principles of anticipatory governance that champions inclusivity and participatory governance, two, prioritize evidence based decision-making and three, invest in public health. These principles will ensure that Pakistan’s Covid-19 vaccination program is equitable, efficient and is based on the idea of ‘leaving no one behind.’

1. **Adopt Principles of Anticipatory Governance;** focus on building preparedness and resilience so that policy choices are responsive to the entire ‘operational environment’ of the country. This requires taking into consideration the entirety of Pakistan’s Federal-Provincial policy network to develop an integrated, bottom-up and top-down governance framework.

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   (accessed 4 July 2020).

Crucial to this exercise, is working with local stakeholders who possess insight into unique locational factors that can inform public policies. Strengthening local governments through greater financial and administrative autonomy is part of this process and will also ensure that the vaccination program is representative and inclusive. Public-Private Partnerships are another area to explore; the government should for instance facilitate engagement with private telecommunication companies, educational institutes and village authorities to create targeted programs that will not only help in the organizational process of administering a Covid-19 vaccination program, but will also play a role in achieving the required attitudinal and behavioral changes.

2. **Prioritize Evidence-Based Decision Making**: Increase reliance on data for public policy choices; specifically invest in the data that helps determine demographic trajectories. This is essential for our Covid-19 vaccination program, as access to reliable and up-to-date demographic data will determine the extent to which policy-makers can identify vaccine-priority groups. Similarly, epidemiological research that explores the matrix of disease risk factors including water and sanitation conditions, urban development, environmental conditions and genetics should be a public health priority. The Ministry of National Health Services, the Drug Regulatory Authority of Pakistan, and Medical research institutes should take a lead in coordinating with the statistical and national database departments, local government offices, health facilities and health workers across the country and even the print and electronic media in this regard.

3. **Invest in Public Health**: The Covid-19 pandemic presents itself as a unique opportunity for many developing countries, including Pakistan, to bring about radical reforms in their health infrastructure. Decision-makers should use this opportunity to invest in bold public health programs that are patient-centric and aim for universal coverage. Consequently, a public funding program that expands access to quality healthcare services is important. This will include a public funding program that allows the Covid-19 vaccine to be administered at the lowest-possible cost to the users-particularly for those families where health costs disproportionately overcrowd their household expenditures.

Political parties also have a pivotal role to play in this regard; by adopting public health as a priority in their agenda, they can begin to develop a culture that works towards human development goals, with the understanding that a healthy and skilled population is the only way livelihoods can be improved. By focusing on people over political gains, opposition leaders can help build a unified response to health crises such as Covid-19, which is integral to Pakistan’s overall development goals.