

EVIDENCE-BASED PUBLIC-PRIVATE COLLABORATION IN THE HEALTH SECTOR

THE POTENTIAL FOR COLLABORATIVE GOVERNANCE TO CONTRIBUTE TO ECONOMIC RECOVERY FROM COVID-19 IN ASIA

Karen N. Eggleston

NO. 97

February 2023

ADB SOUTH ASIA
WORKING PAPER SERIES

ADB South Asia Working Paper Series

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Karen N. Eggleston is director of the Stanford Asia Health Policy Program and deputy director of the Shorenstein Asia-Pacific Research Center at Freeman Spogli Institute for International Studies at Stanford University.



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6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines
Tel +63 2 8632 4444; Fax +63 2 8636 2444
www.adb.org

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Printed in the Philippines

ISSN 2313-5867 (print), 2313-5875 (electronic)
Publication Stock No. WPS230027-2
DOI: <http://dx.doi.org/10.22617/WPS230027-2>

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ACKNOWLEDGMENTS

This working paper on Evidence-Based Public–Private Collaboration in the Health Sector has been prepared by Karen N. Eggleston, director of the Stanford Asia Health Policy Program and deputy director of the Shorenstein Asia-Pacific Research Center at Freeman Spogli Institute for International Studies at Stanford University. Dai-Ling Chen, health specialist at the South Asia Department of Asian Development Bank (ADB), provided the overall guidance for the development of this working paper. The publication was peer reviewed by Eduardo P. Banzon, principal health specialist, Southeast Asia Department, ADB and Kin Wai Chan, Public-private partnership specialist, Office of Public–Private Partnership, ADB.

ADB acknowledges the support of Stanford University in the development of this publication.

ABBREVIATIONS

ADB	Asian Development Bank
AADA	analyze, assign, design, assess
COVID-19	coronavirus disease
DHS	demographic and health surveys
LMIC	low- and middle-income countries
NGO	nongovernment organization
PRC	People's Republic of China
PPP	public-private partnership
SARS-CoV-2	severe acute respiratory syndrome coronavirus #2
SDG	Sustainable Development Goal
SOE	state-owned enterprise
UHC	universal health coverage
US	United States
WHO	World Health Organization

EXECUTIVE SUMMARY

Central and local governments, in their multiple roles as regulators, providers, and increasingly as purchasers of health services, must continuously decide whether to “make or buy” a range of services, from in-house population health services, to “buying” care from nonstate clinics and hospitals as well as from government-owned ones. This report focuses on the “make or buy” decision and supports it with appropriate evidence and institutional arrangements to adapt to uncertain futures while constantly creating and utilizing rigorous evidence to improve performance for accessible, equitable, and affordable health care.

In most health systems, health policy and health sector regulation entail working with a range of providers of different ownership forms receiving financing from a mixture of public and private funds such as patient out-of-pocket payments. Instead of the common but imprecise term “public–private partnership,” this report focuses on collaborative governance, or public–private collaboration based on terms of shared discretion. For collaborative governance to be effective, there must be a high level of governmental competency and administrative capacity. Cases throughout this report illustrate how effective collaborative governance relies on recruiting and retaining talented and motivated personnel into public service. Good stewardship of mixed-ownership systems requires investing in the capacity of government to avoid the two primary hazards of collaborative governance: “payoff discretion” when private collaborators divert payoffs to themselves, and “preference discretion” when private collaborators substitute their own preferences for those of the overall community.

After a brief discussion of ethical principles and a conceptual framework for understanding trade-offs in public–private collaboration, the report summarizes empirical evidence on how nongovernment providers serve different subpopulations, encompassing both the most vulnerable and the most privileged in low- and middle-income countries (LMIC). Quantitative analysis of hundreds of thousands of households’ health service choices in dozens of LMICs shows that private clinics care for sick children from both the poorest and the richest households. Although private care generally is positively associated with family resources, the estimated wealth elasticities of private use for a range of services vary substantially across health systems. Because many poor and vulnerable either do not use formal care services or access nongovernment providers when they do seek care, it is untrue that focusing resources on the public sector automatically prioritizes the poor and vulnerable. Private providers are an integral part of health service delivery, with much variation that is system-specific and service-specific.

Cases from Canada, the People’s Republic of China, India, Indonesia, and Mexico provide comparative perspectives on the role of public and private providers in health systems before and during the pandemic. Several cases illustrate how nongovernment analysts can support effective collaborative governance by working with government agencies using their administrative data to provide evidence to policy makers; or to design studies jointly with policy makers to address critical questions about policy impact—from primary health care to contracting for food delivery.

Several themes emerge. Resilient health systems embed accountability and assessment of “value for money” within everyday collaborations across the public, private, and community sectors so that feedback loops allow evidence to inform policy updates, while engaging all stakeholders. Stewardship of resilient, pluralistic health systems requires commitment to creating an enabling legal and regulatory framework for productive cross-sector collaboration; recruiting, training, and retaining skilled human resources for health and public policy makers; and gathering evidence to provide feedback about what works, including both intended and unintended impacts of programs and policies.

Public–private cooperation has been central in responding to the coronavirus disease pandemic. A crisis underscores the vital social and economic importance of investing in a high-functioning health system. Private sector and civil society efforts, including that of the global research community, provided crucial inputs to successful responses. Numerous cases illustrate that peak performance under pressure comes from investment in preparation months and years ahead of time. Building trust and credibility are critical. At the health system level, and for specific purchaser–provider relationships, adjustment to the pandemic and resilient continuation of patient care during other unforeseen circumstances can be enhanced if parties invest in collaborative governance relational contracts with guiding principles.

To realize the latent potential of public–private collaboration, empirical evidence and case studies suggest that two sets of policies can be especially important foundations: (i) attracting, training, and retaining top talent within public service (i.e., high quality government personnel to oversee the collaboration for aligning with collective interests); and (ii) investing in a constant cycle of performance measurement and innovation to identify and remedy shortcomings while responding to changing circumstances in a manner that embodies the spirit as well as the letter of the guiding principles of the collaboration.

A useful sequence of steps can assist busy policy makers implement the cycle of performance measurement and organize their teams for effective collaborative governance. Assuming that government involvement is warranted, the first key question is the “make or buy” decision: Do benefits and costs suggest that instead of producing the good or service, the government should delegate responsibility to nonstate producers, or partner with private entities and civic organizations to do so? Policy makers should analyze the current landscape of private provision as well as the specific goals of collaboration; assign appropriate responsibilities to private collaborators; design the contract, incentives, and accountability; and continuously assess whether the arrangements meet the collaborative governance goals and deliver good public value. A select subset of public–private collaborations warrant a more detailed design process.

For those few collaborations that are long term, with outcomes difficult to define in detail in advance because they face myriad uncertainties and need for adaptation, policy makers should consider investing in a relational “vested” contract with guiding principles. This process involves establishing a partnership mentality within a governance team from the collaborating organizations; creating a shared vision and objectives for desired outcomes; and defining what the six guiding principles—reciprocity, autonomy, honesty, loyalty, equity, and integrity—entail within the scope of the collaborative endeavor. Investment in articulating guiding principles strengthens collaborative governance when noncontracted circumstances require the collaborating parties to undertake new tasks or respond to crises.

I. INTRODUCTION

Governments at central and local levels have long held the vital responsibility for working with communities and the private sector to promote population health, a responsibility that has thrust their work into the global spotlight during the coronavirus pandemic. As governments move to implement and sustain universal health coverage (UHC), governments also increasingly serve as purchasers in relation to providers of health services such as hospitals and clinics; health insurers for various population groups; and suppliers of vaccines, pharmaceuticals, and other vital health sector inputs. These suppliers and providers include organizations of various ownership forms, from government-owned providers to nonstate providers that are not-for-profit or investor-owned (for profit); whether individually owned or part of a larger organization. Thus, purchasing services from public and private providers and regulating the quality of their services constitute core government functions in the health sectors of most economies (and in many related social protection services related to the social determinants of health, such as affordable housing, nutrition, education, and pensions).

Engaging the private sector can be seen as critical for achieving the Sustainable Development Goals (SDGs). The World Health Organization (WHO) notes “growing momentum to using cross-sector partnerships to achieve the health-related SDGs” (WHO 2020, p. v). Nevertheless, few health systems have developed national plans for engaging the private sector for collective goals. In its study of 18 low- and middle-income countries (LMICs), the WHO found that only Nigeria, the Philippines, and Uganda had designed a national policy beyond disease-specific programs for public-private partnership in the health sector (WHO 2020, p. 74).

Government purchasers must take account of a broad range of considerations when deciding whether to “make or buy” a range of services—from in-house (“making”) of population health services or medical treatment in government-owned and government-managed hospitals; to “buying” services like primary care from nonstate clinics, and inpatient care from private for-profit or nonprofit hospitals. Focusing on this “make or buy” decision, this report explores the evidence and institutional arrangements that might best enable health systems to adapt to uncertain futures while constantly creating and utilizing rigorous evidence to improve performance for accessible, equitable, and affordable health services (and other services financed with taxpayer money within social protection systems). Effectively scaling this approach to entire health sectors may help build long-range resiliency as well as mitigate the longer-term consequences of the pandemic for vulnerable groups. Adopting some of the recommendations may assist policy makers to retain or improve policies that cushion the negative effects of the ongoing pandemic, compensate for the collateral damage to myriad aspects of health investments for the populace, and innovate further to build resilient health systems adaptable to future crises.

Some analysts and policy makers argue that leveraging the private sector is the most fruitful path for innovation, which is itself key to addressing many economic and social problems of great complexity, including the conundrums that plague the health sector and social protection programs during and after the pandemic. Such advocates emphasize the potential of private for-profit and not-for-profit organizations and public-private partnerships (PPP) to bring substantial social value. Others counter that innovation by private organizations often comes at the expense of equity, leaving out the poorest or most vulnerable. These critics often argue that public sector providers (such as hospitals and nursing homes) offer greater accountability and fidelity to public goals such as reducing inequality in access and quality (see literature review in Chapter 2 of Eggleston, Donahue, and Zeckhauser 2021; and Hart, Shleifer, and Vishny 1997). Numerous market failures in the health sector (Arrow 1963) imply that market forces alone cannot guide social investments to their highest-valued use for services such as population health, medical care, long-term care for the disabled and elderly, health insurance, and other related social protection programs.

This report focuses on how to leverage the vital synergies between market and control, and between the public and the private sectors, to build stronger and more resilient health systems. The primary message can be summarized concisely: Resilient health systems embed accountability and assessment of “value for money” within everyday collaborations across the public, private, and community sectors so that feedback loops allow evidence to inform policy updates, while engaging all stakeholders.

Who are those stakeholders? And what do we mean by “private”? Discussion of private, or nonstate, in this report uses these terms to include not only private for-profit individual and corporate organizations, but also and very importantly, nongovernment organizations (NGOs), nonprofit organizations, community-based organizations, and a range of hybrid organizational forms that collectively represent civil society. Resilient pluralistic systems involve government agencies responsible for social services collaborating with civil society. These civic organizations not only are critical contributors to pandemic response, but transparent governance that leverages their strengths is one of the only ways to truly serve population health, promote health for residents of all ages, and establish sustainable and inclusive social protection systems. “Civil society plays a crucial role. While their most visible roles may be those involved in delivering services to those who fall through the gaps in official programs, they also can contribute as a source of information.... [and] take on roles that have previously been reserved for health professionals, such as vaccinations (after appropriate training) or by providing support for those isolating or otherwise in need” (European Observatory and World Health Organization 2021, p. 92). Thus, while for brevity “private” is used throughout the report, readers should not misconstrue as referring only to private corporations; it encompasses a far more diverse and rich set of counterparties for government collaboration to serve the collective good.

In examining how to leverage public–private collaboration to build resilient health systems, this report draws upon the following definition of resilience: “the ability of the health system to prepare for, manage and learn from a sudden and extreme disturbance. It is about maintaining the performance of core health system functions” despite shocks and uncertainty (European Observatory and World Health Organization 2021, page xix). There can be other definitions with similar implications. All definitions of resilience involve some appropriate form of public–private cooperation.

Private engagement in public tasks constitutes *collaborative governance* when the collaborating parties (e.g., a government purchasing agency and a nonstate organization of physicians or other providers) share meaningful discretion (Donahue and Zeckhauser 2011; Eggleston, Donahue, and Zeckhauser 2021). With careful attention to evidence-based policies for leveraging the strengths of public and private sector collaboration, renewed investment and innovation ideally can diagnose and effectively treat health system weaknesses, just like scientific cooperation about the SARS-CoV-2 virus itself diagnosed and treated the coronavirus disease (COVID-19). Building on investments to date, a renewed commitment to, and investment in, evidence-based, scientific study of health systems holds the potential to strengthen prevention and to develop more cost-effective, high-quality primary care and other core services to promote healthy lives for every citizen, including the rural, poor, and vulnerable.

The report covers 10 sections. After this introduction of key concepts and themes, section II briefly summarizes the ethical principles guiding the report’s recommendations for public–private collaborative arrangements in the health sector. If public and private collaborators share fidelity to these ethical principles, more effective collaboration might find a solid foundation. Some of the principles will re-emerge in multiple places in the report, since one of the key recommendations includes selecting a few vital long-term public–private collaborations for establishment of “relational contracts with guiding principles.” Section III summarizes a conceptual framework for understanding trade-offs in public–private collaborative provision of social sector services. This section provides a more detailed definition of collaborative governance, how it differs from the more common but more restricted term “public–private partnership” (PPP), and the trade-offs associated with writing a good contract and knowing that contracts are inevitably incomplete. Contractual incompleteness shapes decisions about

“the proper scope of government,” the “make or buy” decision, and when to utilize a relational contract with explicit guiding principles to structure long-term collaborative governance arrangements with large scope for discretion.

The first step in effective collaborative governance is to understand the landscape of public and private roles and analyze the benefits and costs of in-house provision compared to a collaborative approach. Accordingly, section IV presents analysis of the prepandemic landscape of public and private provision of health services in LMICs, drawing on empirical analysis of demographic and health surveys (DHS). The section then develops case studies from LMICs in Asia (the People’s Republic of China [PRC], India, and Indonesia), illustrating the promise and peril of public–private engagement in in-patient care and health insurance (India), primary care and elderly care (the PRC), and supporting affordable and appropriate nutrition through subsidized rice delivery (Indonesia). Comparative cases from Canada and Mexico illustrate potentially valuable roles of collaborative governance in health service delivery.

In section V, the report turns briefly to the role of public–private cooperation in responding to the COVID-19 pandemic. Section VI discusses recovery from the pandemic, especially the nexus of collaborative governance with ongoing trends in technology adoption in the health sector, from telehealth to decision support algorithms and detecting diagnostic error. Designing incentives and accountability mechanisms are the focus of section VII, from legal frameworks and regulations to the all-important issue of recruiting skilled and pro-social talent to public service, because a capable government sector constitutes the cornerstone of effective public–private collaboration. The final sections of the report present recommendations for various stakeholders: section VIII on the potential role of regional cooperation organizations such as the Association of Southeast Asian Nations; section IX on the potential role of regional multilateral development organizations like the Asian Development Bank (ADB); and section X concluding with recommendations for private sector and civil society, for LMIC governments at local and central levels, and for ADB and other intergovernmental organizations.

II. ETHICAL PRINCIPLES GUIDING HEALTH SECTOR STEWARDSHIP AND PUBLIC-PRIVATE COLLABORATION

Public-private collaboration often will be more productive and long-lasting when those who are responsible for health policy and social protection and other stakeholders share awareness of, if not equal commitment to, a set of ethical principles. Following Kornai and Eggleston (2001a and b), my starting point is the ethical challenge of assuring social solidarity while promoting individual sovereignty and choice.

- (i) **Sovereignty of the individual (choice).** Health and social protection system strengthening should honor and preserve some scope for individuals to choose providers and services that best fit their needs, leaving them less defenseless in relation to providers in the sphere of social services.¹
- (ii) **Solidarity.** Help the suffering, the troubled, and the disadvantaged. All definitions of resilience, including the one guiding this report, involve some elements of these two ethical principles: allowing individuals and society some ability to bounce back after adversity, while preserving individuals' health and livelihoods as much as possible, and working together in solidarity in the face of shocks and unforeseen circumstances. Resilience is the ability to deliver on these ethical principles even when facing great strain, uncertainty, or conflict. Investing in preparation and planning, along with some agreement on guiding principles of collaboration, can be critical for building trust in the underlying cooperative processes and governance arrangements so that these principles are not lost during a crisis.
- (iii) **Competition.** Competition can help to assure that patients are not defenseless under a public monopoly or an exploitive private equity provider; or a provider who forces patients to accept their own beliefs and preferences (religious, gender, preferable treatment pathway, or otherwise). Of course, competition may also have the desirable effect of promoting efficiency, if structured carefully to avoid market failures. To assure effective choice for all citizens—not just the wealthy, healthy, or well-connected—also requires attention to incentives, strong government oversight, transparency in policymaking, and allowing time for adjustment.
- (iv) **A strong government role.** The main functions of the government in the social services sector include supplying legal frameworks, supervising policies that steward private as well as public organizations, and providing last-resort insurance and aid. The government is responsible for ensuring that every citizen has access to basic health care and basic education, even in a crisis.
- (v) **Transparency.** The link between social services provided by the government and the tax burden that finances them must become apparent to citizens; reform should be preceded by open, informed public debate; and purchasing arrangements should be transparently managed to avoid collusion, unfair advantages for the connected, and discrimination against disadvantaged social groups.
- (vi) **Time requirement.** Time must be left for the new institutions to evolve and for citizens to adapt. The pandemic has demonstrated health systems' ability to adapt rapidly when necessary, thus highlighting the potential to streamline processes and move life-saving innovations into practice quickly. Yet individuals and systems cannot always function in crisis mode without burnout; there needs to be time to mourn the tragic losses of this pandemic and to renew commitment that the victims will not have died in vain because

¹ For example, if giving birth in facilities is seen as a path to improve birth outcomes, then policy should make choice of facility-based birth (instead of home birth) easy and affordable.

we are learning lessons to build resilience through evidence-based innovation with accountability. Moreover, response to crises inevitably involves trade-offs; rapid responses are difficult without compromising quality. Crisis management frequently requires allocating resources away from core health care services, or otherwise compromising effectiveness and efficiency of noncrisis services. Therefore, prudent embrace of a collaborative governance approach involves addressing this aspect of resilience and allowing time for new institutions to evolve.

Finally, policy makers need to find a socially responsible and fiscally sustainable balance among the competing priorities of harmonious growth and sustainable financing:

- (vii) **Harmonious growth.** There should be a balance between the resources devoted to investments in the social service sector and those that directly promote livelihoods and economic growth. Health, as one facet of human capital, should be viewed as an investment, made available with equity for all, even during crises as far as possible. There may need to be wrenching short-term trade-offs between health and the economy during a crisis, but in the intermediate to longer run, the trade-off recedes: investment in health and education are foundations for economic growth and improved living standards.
- (viii) **Sustainable financing.** The government budget should be continually capable of financing fulfillment of the government’s obligations.

Note that the ethical principles apply to all organizational forms in pluralistic systems. Embedded norms may be “activated” in the process of contracting (Hart 2009, Frydlinger and Hart 2022), inviting people to identify with the mission, leveraging a sense of working for a purpose.

The macroeconomic principles (e.g., harmonious growth, sustainable financing) indicate that during the ongoing recovery, reform of health systems and social protection more broadly should take account of the fiscal space, historical-cultural context, and political economy of each system. This report focuses on one small slice of the health and social sector, pluralistic systems, with the understood backdrop of appropriate system governance and macroeconomic stewardship.

The guiding principles of collaborative “vested” partnerships (formal relational contracts) as highlighted by Frydlinger and Hart (2022) can also be understood within the Kornai–Eggleston (2001a and b) ethical framework for health system reforms, when interpreted as referring to organizations as well as individuals. The six principles—reciprocity, autonomy, honesty, loyalty, equity, and integrity—provide a framework for resolving potential misalignments when unforeseen circumstances occur (Frydlinger and Hart 2022) and build the trust needed for resilient response to crises.

III. CONCEPTUAL FRAMEWORK FOR UNDERSTANDING TRADE-OFFS IN PUBLIC-PRIVATE COLLABORATIVE PROVISION OF SOCIAL SECTOR SERVICES

A. Collaborative Governance

Eggleston, Donahue, and Zeckhauser (2021) describe and apply the term *collaborative governance*, which has a reasonably specific definition: private engagement in public tasks on terms where the two sectors share discretion. Collaborative governance occupies the crucial middle ground on the spectrum of public-private interactions, a spectrum with strict government control at one end, and private volunteerism at the other. Collaborative governance embraces definitions of “public” and “private” that allow for shades of gray. For example, “public” encompasses government agencies and public service organizations (such as public schools); while “private” includes nonstate actors running the gamut from for-profit private firms to social organizations and other not-for-profit entities.

Governments use multiple approaches to tap the perceived efficiency advantages of the private sector for many activities. If any form of delegation to the private sector is to be effective, then first and foremost, there must be a high level of governmental competency. That is why this report emphasizes the importance of recruiting, training, and retaining talented and motivated personnel into public service, as a foundation for effective collaborative governance.

Collaborative governance should not be confused with other forms of engagement, such as straightforward service contracting without shared discretion (e.g., providing reliable cleaning services for hospitals). Collaborative governance and service contracting are certainly related, but are more like cousins than siblings (Eggleston, Donahue, and Zeckhauser 2021). Both depend on the diverse, vibrant private sectors that many higher-income economies have long possessed and that have also blossomed in several LMICs, although LMICs are diverse and heterogeneous: some have long had a private sector serving a substantial fraction of the population, while other LMICs may have very few private health service providers of any scale or scope. Moreover, quality and competency vary widely among nongovernment providers. In many cases, there could be a valuable role for nonprofit associations to partner with government agencies in providing “matchmaker” services to organizations with relevant expertise, which would enable appropriate growth of the private sector for both service contracting and, eventually, as options for trusted partners in collaborative governance.

Both service contracting and collaborative governance require a well-elaborated system of law and ownership rights so that obligations and entitlements can be specified and secured. But the key difference between the two hinges on the defining feature of *discretion*. Contracting is a matter of government issuing clear instructions to its private agent and holding that agent tightly accountable for following those instructions. The private provider does what it is told and paid to do, with little or no discretion (Eggleston, Donahue, and Zeckhauser 2021). In other words, simple contracts between the government and the private provider are easiest and cheapest in many cases: “for simple transactions where unanticipated events are not a major issue, a standard contract will suffice” (Frydinger and Hart 2022, p. 5).

Collaborative governance, conversely and by definition, involves a meaningful degree of discretion exercised by both public and private parties. Such discretion might apply to choices about inputs, processes, or outcomes (Eggleston, Donahue, and Zeckhauser 2021). These partnerships typically intend to continue over a relatively long time and may have to contend with widely varying circumstances. In these cases, investing in guiding principles for the partnership could be worthwhile.

The term “public–private partnership” (PPP) is common and conveys some similar connotations with the “partnership” rather than “contractor” moniker. However, PPP often connotes a narrow range of partnerships—stereotypically, a for-profit private firm working with a government agency on an infrastructure project. Moreover, PPP has been used in so many diverse ways by different authors that its contours are fuzzy and analytically unclear. Therefore, this report adopts a more precise term of *collaborative governance*, which explicitly embraces nongovernment collaborators spanning nonprofits and hybrid organizations, NGOs, academics, and other nonstate actors sharing discretion with the government.

B. What Do Nonstate Actors Bring to Government-Defined Collective Goals?

There are four chief justifications for collaborative governance, i.e., for engaging the private sector, and doing so under terms that allow shared discretion, rather than through direct government action on one hand, or through volunteer activity, on the other. These four justifications are private sector advantages in *productivity*, *information*, *legitimacy*, and *resources* that can advance public sector missions (Eggleston, Donahue, and Zeckhauser 2021).

First, productivity. The most common justification for collaborative governance is the private sector’s advantage in productivity—an advantage that is far from universal but both very common and widely acknowledged. The second justification is information. The private sector is often privy to information that could aid the government but would be difficult to access without shared discretion.

Third is legitimacy. This factor may differ significantly across jurisdictions with distinctive histories and institutional legacies. For example, in the United States (US), cultural emphasis on private enterprise catapults private industry into the place of greatest legitimacy for many functions. In the PRC, the inverse relationship often applies: collaborative arrangements invariably are hierarchical with government taking the lead, and private firms can gain legitimacy by collaborating with the public sector (Eggleston, Donahue, and Zeckhauser 2021).

Fourth and final is resources. Collaborating to share resources—including financial capital, human capital, and technical expertise—can be a main advantage of collaborative approaches.

Jurisdictions will differ in their experience and preferences based on the ecology of organizational forms they inherit. For example, as Eggleston, Donahue, and Zeckhauser (2021) argue, each country may have a “comfort zone” for collaborating with the private sector on tasks where private discretion poses obvious risks, embracing an organizational form that is intermediary between a for-profit firm and a standard government agency. In the US, this category is the private nonprofit (e.g., nonprofit hospitals and colleges); in the PRC, this category is the corporatized state-owned enterprises (SOEs). Each form has emerged within each country’s distinctive political economy as the best national answer to the puzzle of merging private efficiency with fidelity to a public mission. Of course, the organizational label does not automatically lead to perfect alignment with the collective good, but it can mitigate risks and facilitate shared norms for the collective undertaking. Nonprofits in the US such as hospitals can earn high net revenues, but still be more likely to offer unprofitable services than for-profits do (Horwitz and Nichols 2022). The SOEs in the PRC can be strongly motivated by profit, but still adhere to the spirit of government directives and regulation more faithfully than do conventional private firms (Eggleston, Donahue, and Zeckhauser 2021).

In leveraging the benefits of collaborative governance approaches, stakeholders should also bear in mind the risks. One danger of collaborative arrangements is that discretion can be abused to promote private benefits. For example, a well-recognized hazard of collaborative governance arises when private collaborators divert payoffs to themselves from the public at large—what we call “payoff discretion” (Eggleston, Donahue, and Zeckhauser 2021). Private collaborators may also substitute their own preferences for those of the community, imposing self-serving narrow conceptions of the public good—

what we call “preference discretion.” As Eggleston, Donahue, and Zeckhauser (2021) note, this risk is greatest when delegating authority or discretion to organizations with explicit objectives beyond profit (such as not-for-profit organizations, NGOs, or various hybrid organizational forms). Such preference manipulation is another reason why guiding principles’ up-front communication to align missions, and open governance frameworks to deal with crises like pandemics, can be critical for functioning smoothly and bringing social value.

Even seemingly innocuous “consultation” can enable collusion, privilege elite interests, or burnish the image of legitimacy (for the government or the firm or other party) without delivering any true collaborative progress on behalf of broader collective interests.

Perhaps “trust but verify” applies to domestic collaborative governance as well as bilateral cooperation, to establish transparent processes to (re)build trust that promotes collective good rather than narrow self-interests.

Collaborative governance calls for a continuous cycle of assessment and refinement, tailored to the local governance challenge. Collaboration starts with sound government *analysis* of the specific goals that are sought, as well as the menu of stakeholders and potential private collaborators. Second, the public manager must *assign* appropriate responsibilities to collaborators or contract counterparties. The third task is the *design* of the contract—what is allowed and expected of each party, and their respective incentives and accountability—or, with more complexity, design of the collaborative relationship and the parameters of shared discretion, such as establishing a vested contract with guiding principles. Most collaborations will endure for a length of time and require *assessment* and reanalysis to make sure that they still maximize public value. Assessing value for money relative to the entire value chain of related services is a vital step; the assessment may launch a new cycle of analysis and implementation to address the weaknesses of the original governance mechanism. This cycle of “Analyze, Assign, Design, and Assess,” or the “AADA cycle,” constitutes an integral feature of effective collaborative governance, providing the basis for incremental innovation and evidence-based improvement (Eggleston, Donahue, and Zeckhauser 2021).

Thorough *analysis of trade-offs* forms the foundational step for effective collaborative governance and is the focus of much of this report. Ideally the government analysis will involve attention to the entire value chain of upstream and downstream services related to the given project. Unfortunately, even the most dedicated and informed public servants face multiple constraints—of time and resources—that preclude such analysis from ever being fully complete or foreseeing all relevant contingencies. That is why the theory of incomplete contracts, introduced in the following section, is especially relevant. As will be discussed in detail in later sections of the report, a key recommendation is to screen projects and to select only a limited number—multi-year, complex, and important public–private collaborations—for governance with a relational contract incorporating guiding principles into the foundational charter of the partnership. Screening projects for appropriateness of a collaborative governance approach constitutes the first, critical step of analysis, and is often far from straightforward. The screening process may evolve over time as government agencies and nonstate collaborators gain experience with what works in specific domains and establish precedents for collaboration, with accompanying evidence of what works, reducing the uncertainties inherent in building a resilient health system in challenging times.

The following brief description of underlying economic theory seeks to provide context for this recommendation to select a few long-term, complicated, and consequential public–private collaborations for governance with a relational contract incorporating guiding principles. The summary explains why analysis involves trade-offs between specific benefits and costs, and how the inability to specify all desired outcomes in a contract heightens both the importance of ownership and the desirability of structuring some long-term collaborations as relational contracts with guiding principles.

C. Contractual Incompleteness, Ownership as Residual Control, and Role of Guiding Principles

For many services, from health and education to collecting garbage or running prisons, whether the government should contract out to a private organization is controversial. With continuing debate about public and private roles in everything from pandemic response, to innovations to address other global challenges like sustainability, conceptually rigorous thinking can inform a sometimes divisive and ideological question.

(i) Contractual Incompleteness

Contracts, such as those between a government agency and a private provider of a service or a government employee of a different supplying agency, are inevitably incomplete. There are gaps and omissions. New developments arise socially, geopolitically, technologically, epidemiologically, and otherwise that were not covered in specific clauses of the contract. While considering a broad range of possibilities is important, public purchasers and their contracting providers need to accept that the future is not fully knowable; some important aspects of performance are fundamentally noncontractible in the sense that even if actions could be specified, courts could not enforce adherence to specific outcomes. Therefore, rather than striving to anticipate and contract on all possible contingencies, the parties need to step back to assess whether the contractual relationship is important and long term enough, with important elements of uncertainty, discretion, and innovation over time, to warrant investing in a formal collaborative governance arrangement. For example, a “vested contract” can help to align goals and respond to unforeseen contingencies by articulating each party’s understanding of the guiding principles of their collaboration.

(ii) Ownership as Residual Control

Because contracts are inevitably incomplete, ownership matters. In fact, ownership can be *defined* in terms of who has authority to decide when contracts do not state what should be done. Such a definition of ownership in terms of residual control is the foundation of the “property rights theory” of ownership—the Nobel prize-winning contribution to economics by Oliver Hart and coauthors, sometimes known as the “Grossman–Hart–Moore” theory of ownership (Grossman and Hart 1986, Hart and Moore 1990). Briefly summarized, this theory posits that the key distinction between an owner and nonowner of any (nonhuman) asset is that the owner has control when written contract(s) are silent about what should happen to that asset. *The owner is the individual or entity with residual rights of control: the owner decides what to do when circumstances arise that are not contractually prespecified (i.e., there is some scope for “discretion,” as the collaborative governance framework emphasizes).*

Building on this conceptual foundation, Hart, Shleifer, and Vishny (1997) developed a theory of “the proper scope of government” in a seminal paper. [Oliver Hart](#), the Lewis and Linda Geyser University Professor at Harvard University and the 2016 co-recipient of the Nobel Prize in economics, reflected on the legacy of that framework in a recent recorded [webinar](#) of the Stanford Asia Health Policy Program. During the webinar, Professor Hart responded to questions, including several prerecorded from scholars who shared frank and jargon-free reflections for a documentary video celebrating a quarter century of Hart, Shleifer, and Vishny (1997).²

² That documentary is available from the Stanford Asia Health Policy Program at the Shorenstein Asia-Pacific Research Center’s YouTube channel (Shorenstein APARC. 2021. The Legacy of “The Proper Scope of Government” Documentary. <https://www.youtube.com/watch?v=g9JRhGpXC2Y&feature=youtu.be>). The theory of “the proper scope of government” is explained in accessible language by several prominent researchers (e.g., at the [beginning of the video](#), Jonathan Levin of Stanford Graduate School of Business, Steven Tadelis of the University of California at Berkeley, and Mark Duggan of Stanford University, among others). Later sections highlight perspectives from Asia and Europe, including on health policy in LMICs and the COVID-19 pandemic.

This important conceptual framework highlights that rather than competition, the fundamental consideration is who controls assets in noncontracted circumstances and has most appropriate incentives to balance cost and quality. The private sector usually has strong incentives to innovate and control costs (depending on the incentive contract); but these incentives may be too strong, leading to lower quality in pursuit of lower cost and greater net revenue. If the government purchaser cannot contract on performance (e.g., quality of care) in enough specificity to avoid such quality shaving, then the lower incentives of government within-house production may be better than contracting out to the private sector. Government employees typically will have lower-powered incentives and fewer opportunities for large gains from breakthrough innovations, thus showing greater fidelity to longer-term goals without the temptation of earning a “fast buck” (or holding up the partner to gain a large reward or engaging in payoff discretion lacking integrity and equity). Hart, Shleifer, and Vishny (1997) argue, for example, that high-security prisons should be run directly by the government, not contracted out

Box 1: Examples of the Comparative Advantages of the Public and Private Sectors

Eggleston, Donahue, and Zeckhauser (2021) discuss the comparative advantage of government in-house provision compared to contracting out for various services, giving the following examples:

Public providers have a comparative advantage for goods and services that possess some combination of the following characteristics. They are: (a) difficult to contract; (b) involve pure public goods or significant externalities; (c) not easily monitored by pupils, patients, or households in the sense that they can discern distortions in quality; and (d) highly susceptible to inefficient sorting of students or patients. Examples in the health sector would include regulating public goods vital for health, such as clean air and water; population-based health initiatives, and other services conveying large positive externalities (e.g., control of infectious disease); and services plagued by asymmetry of information and inability of the recipient to assess quality or exercise effective choice, such as care for the severely mentally ill and long-term care for elderly...

Private providers have a comparative advantage for goods and services that combine one or more of the following features: (a) readily contractible; (b) quality readily monitored by consumers such as students, parents, and patients (directly or through the reputation of the supplier); (c) susceptible to competition; (d) not amenable to dumping of unprofitable clients (e.g., special-need students, unprofitable patients), or for which risk adjustment of payment is feasible and reasonably accurate; and (e) incentives for rapid quality innovation are more valuable than low-powered incentives for cost control that will damage quality. Examples include most aspects of job training that are specific to firms, elective surgery and most dental care, as well as the provision of drugs and many aspects of primary health care.

A murkier middle ground covers services with redistributive concerns and economic spillovers, and areas where selection and dumping of unprofitable students and patients could be addressed in part through public financing rather than direct delivery (e.g., universal coverage of K-12 education and basic medical insurance)” (Eggleston, Donahue, and Zeckhauser 2021, Chapter 2).

Source: K. Eggleston, J. D. Donahue, and R. J. Zeckhauser. 2021. *The Dragon, the Eagle, and the Private Sector: Public-Private Collaboration in China and the United States*. Cambridge: Cambridge University Press.

to private prison operators. Health and social protection services run the gamut from those for which contracting out could be ruinous, to those where it brings great value (see Box 1 for some examples based on the comparative advantages of public and private sectors). Government capacity for evidence-based decisions on this crucial “make or buy” decision is the first and most important foundation of effective and resilient governance.

(iii) Role of Guiding Principles

Noncontracted circumstances will arise; contractual incompleteness will matter. Thus, a resilient system will need to take this into account. One way to do so is to invest in articulating principles that will guide decisions when noncontracted circumstances require either or both parties to undertake a new task or address a crisis, like managing any organization during a pandemic. To this end, Frydinger and Hart (2022) propose adding the six above-mentioned guiding principles directly into the contract, i.e., setting up a relational contract, or “vested contract.” Such a formal relational contract requires *ex ante* investment but yields many potential benefits. One such benefit might be building trust and reducing asymmetric information: “One of the purposes of a formal relational contract is to build trust, and trust can overcome asymmetric information” (Frydinger and Hart 2022, p. 29). In other words, incorporating guiding principles into a collaborative governance arrangement such as for purchasing health services from private providers can be shown not only to have rigorous theoretical foundations but also to have been tried and “proven” in practice as a promising method or pathway—or at least one element of such a pathway—for building resilient health and social protection systems.

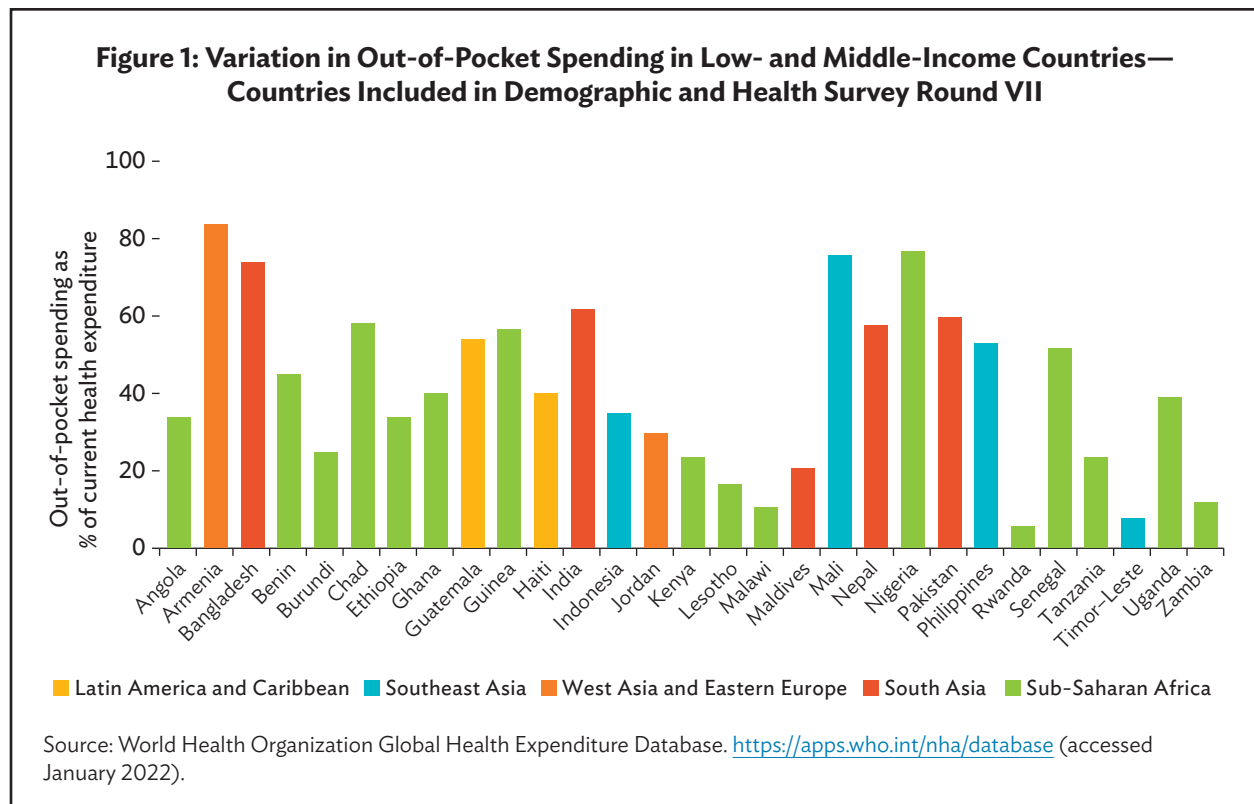
In a recent dialogue about these issues, Nobel laureate Oliver Hart responded to questions about applications to LMICs, including the following: “In settings where there might be issues with the efficiency, robustness, or reliability of the legal system, do you think that guiding principles are even more important?” His response was as follows: “It’s a good question. I suppose, possibly, in the sense that if you have a decent legal system, you can use the standard part of the contract to deal with a fair amount, and then the guiding principles are on top of that. If you don’t have any sort of legal system, you’re going to have to use norms to solve every problem, so I suppose it would be more important to have stronger norms. I think the point I would emphasize, though, is that even in a good legal system, this can work as a very powerful addition to standard contracts.”

To understand how this conceptual framework can help to inform policy for more resilient health systems, abstract concepts should be illustrated with concrete examples. The next sections of the report do so. As emphasized, the initial step in any project screening process for the appropriateness of a collaborative approach is to gather information on the private sector’s role in the health system so that policy makers can *analyze* the specific goals of collaboration and potential private collaborators before *assigning* appropriate responsibilities to collaborators. Accordingly, it is important first to understand the pre-pandemic context of mixed health service delivery across different health systems, the topic of the next section.

IV. PREPANDEMIC TRENDS IN PUBLIC AND PRIVATE PROVISION OF HEALTH SERVICES

Health service providers of a variety of different organizational forms play important roles across a broad range of health systems. Although many observers assume that government providers and NGOs primarily serve the poor, and that private (individual and/or for-profit) providers are favored by those with greater means, this is far from universally the case. In fact, there is great heterogeneity across health services within the same jurisdiction, as well as across jurisdictions, and to a lesser extent over time. Nongovernment providers serve different subpopulations, sometimes encompassing both the most vulnerable and the most privileged. This section summarizes empirical evidence of the factors associated with public or private provision across different sectors, with an emphasis on utilization of health care services. First, it presents analysis of data for selected Asian LMICs, drawing on demographic and health survey (DHS) data. Several case studies follow. The quantitative and case study results illustrate the beginning *analysis* step discussed in the conceptual section. Each health system is different; effective collaboration requires understanding the landscape of private provision and tailoring collaboration to the context.

This analysis of health system heterogeneity in private share of services underscores that stewardship of a resilient health system must incorporate and engage the private sector in its efforts to better serve the population, even when taxpayer financing does not fund the privately provided services and steps to universal coverage remain ongoing. As noted by McPake and Hanson (2016, pp. 628–629), “achievement of universal health coverage requires pooled, mainly public financing, but can be compatible with various roles for private health providers, under effective public stewardship.” Figure 1 shows the large variation in out-of-pocket spending in the LMICs represented in the DHS Round VII data, by region. High out-of-



pocket spending indicates that the country has not reached universal health coverage, or that coverage of services and protection against catastrophic spending remains limited. These high out-of-pocket expenditure shares imply that engagement of the private sector goes well beyond specific purchasing arrangements financed by taxpayer money. Health sector regulation entails working with a range of providers of different ownership forms receiving financing from a mixture of public and private funds such as patient out-of-pocket payments.

A. Quantitative Analysis of Demographic and Health Surveys

Building upon previous research (e.g., Grépin 2016), analysis for this report focused on service use by households in lower-income economies surveyed over many years in repeated DHS waves. This section gives a brief narrative overview of some primary results, as shown in the accompanying figures, maps, and data tables. The analyses of the DHS focus on household care-seeking behaviors for ill children (diarrhea, fever, or cough) and for maternal health. Each visit is categorized as being to a government-owned or nongovernment provider, with the latter including nonstate entities such as private clinics, NGOs, or civil society organizations. The categorization of nonstate providers may differ by health system, and the analysis phase of any public–private engagement process should delve into the specifics of those categories to understand the landscape for collaboration.

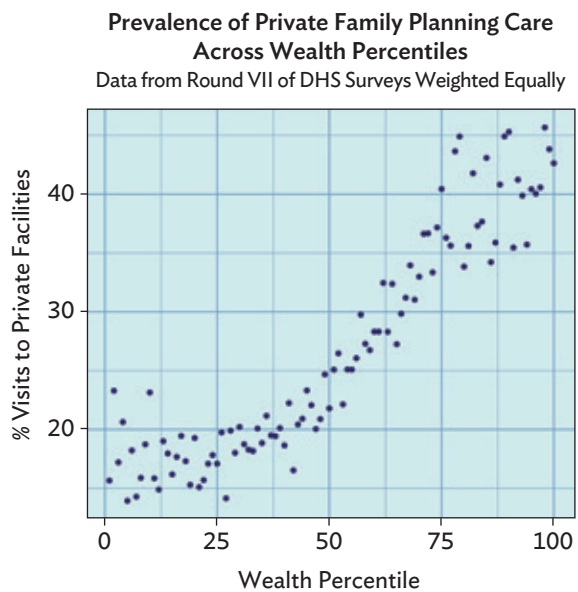
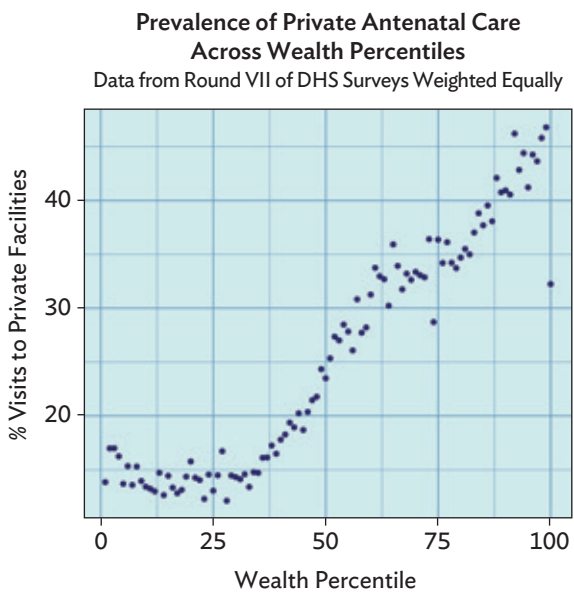
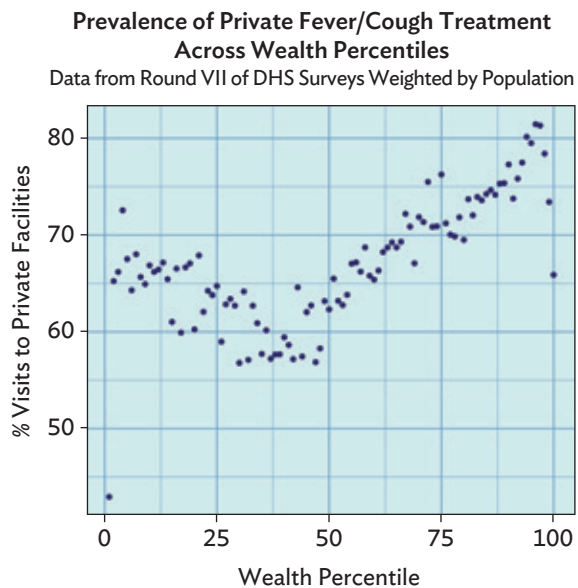
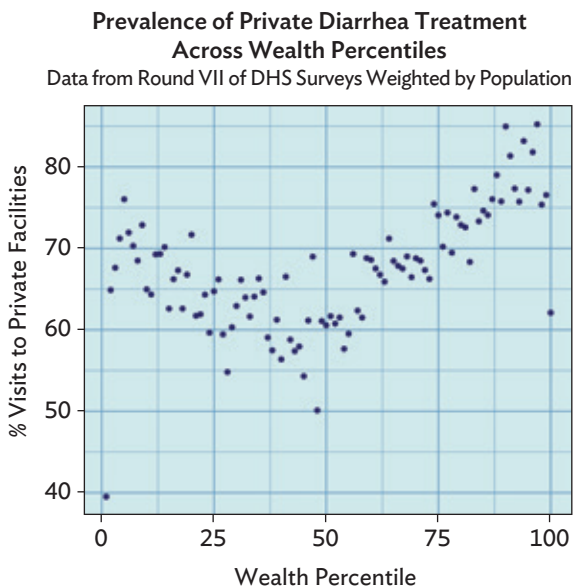
Private providers are a primary source of care for many patients in LMICs, with considerable local variation (Figure 1). Private care also tends to be positively associated with family resources, such that the highest wealth percentiles (the wealthiest households across all DHS-surveyed countries) utilize the largest share of private sector healthcare services, though private utilization never reaches 100% even at the wealthiest decile (Figure 2).

Who uses which kind of nonstate providers? There is great heterogeneity across health systems in the kinds of providers. In some settings, religious NGOs fill a niche serving the poor; in other systems, such NGOs are absent or even illegal. The DHS data collects self-reports from patients regarding the kind of provider at which they sought care; those variables naturally are tailored to the country context and are not necessarily comparable across countries (Grépin 2016). An analysis of DHS data for Africa finds that “35% of those who seek outpatient care go to the for-profit private sector, while 17% seek care at shops, faith healers, and other informal providers. Overall, 26% of care-seeking occurs in the formal private sector (e.g., medical clinics and nursing homes), with an additional 10% with informal providers” (WHO 2020, p. 4).

Systems also differ in the local availability of quality care, whether from public, private for-profit, nonprofit, or informal providers. For example, Das et al. (2020) document wide variations in provider knowledge using clinical vignettes to assess thousands of village doctors across most of India (1,519 villages across the 19 most populous states). They find that “even within states, districts where public sector providers are more knowledgeable are also those where the private sector providers are more knowledgeable. Socioeconomic development in India does not crowd out informal providers: it increases their knowledge, a fact that may explain why informal providers do not disappear as states become richer” (Das et al. 2020, p. 10).

Consistent with those other studies, the DHS data generally confirms that private providers serve both the poor and the rich to some extent. It is untrue that focusing resources on the public sector automatically prioritizes the poor and vulnerable, because many poor and vulnerable either do not use any services, or access nongovernment providers when they do seek care. Designing appropriate policy for a given health system or locality requires equivalent analysis of data about the private sector, including which kinds of providers serve which kinds of patients.

Figure 2: Private Providers—Serving Both the Poor and the Better-Off



DHS = demographic and health survey.

Note: Data pertain to use of private providers for care of children with diarrhea in low- and middle-income countries across multiple global regions, by household wealth.

Source: Author analysis of Demographic and Health Survey data. The DHS Program. <https://dhsprogram.com/> (accessed January 2022).

Consider for example Figure 2, “Use of private providers for care of children with diarrhea or fever and cough.” The graph plots private share of use in LMICs across multiple global regions, by household wealth, weighting by the population. Figure 2 clearly shows a bimodal distribution for care of sick children (the top two panels), i.e., that both the richest and poorest use private providers more than the middle-wealth households do.

More specifically, using the individual household data with relatively large samples (e.g., over 892,000 observations for over 830,000 households for India), one can analyze the elasticity of private care with respect to household wealth. The household wealth index of assets is normalized to a 1 to 100 scale. The elasticity shows the percentage increase in private share of visits as wealth increases by 1%.³

The estimated wealth elasticities of private use vary substantially across health systems, although they are generally positive and statistically significant. Looking at South Asia, the highest is for Nepal, where a 10% increase in wealth percentile corresponds with a 5% increase in private share; but the wealth elasticity is quite substantial for all surveyed countries (1.1% in Maldives, 1.3% in Pakistan, 2.3% in Bangladesh, and 2.6% in India, for a 10% increase in the wealth index). In Southeast Asia, the estimated percentage increase in private share of visits for a 10% increase in wealth index is 3.8% for Indonesia, 1.7% for the Philippines, and 4.6% for Timor-Leste.

Analysis of datasets for other regions provides comparative perspective. For some countries, the elasticity of private care use with respect to the wealth index was similarly high. For example, for a 10% wealth percentile increase, the increase in private share was 4.6% for Guatemala and 4.1% in Senegal. However, the estimated elasticity was not statistically different from zero for some other countries (e.g., Haiti, Jordan), indicating that greater wealth is not associated with a greater propensity to use private care. In addition, in a few cases, the elasticity was negative: for a 10% increase in wealth, the percentage private share *declined* by 0.3% in Albania, 0.6% in Chad, and 0.5% in Zambia (see regression results in Eggleston 2022). The clearest monotonic increase in private share with wealth is evident for family planning services in the DHS data, although the highest private share is only around 50% (Figure 2).

The regressions confirm that overall, private use is a luxury good in the economic sense that wealthier households purchase more. Many services show a convex pattern in wealth, with a relatively flat share of private use below median wealth, and then a rather steep elasticity (greater private use) at above-median wealth percentiles. Thus, the maternal and child health services captured by DHS utilization data show great variation but generally, though not exclusively, reflect the traditional pattern of the government disproportionately serving the poorer households. These results further underscore that health systems are pluralistic and that both relatively poor and comparatively well-off households use private providers for many services, although the kinds of private providers may differ (e.g., informal village doctor or religious NGO, compared to an urban corporate hospital or clinic catering to elites).

Analyzing the patterns of service use within each country, we see that rural residence is sometimes associated with higher private use for a given level of wealth (e.g., India, Pakistan, the Philippines), or lower private use for a given wealth level (Indonesia), when allowing for interactions between wealth and rural residence. Private maternal care appears to be a “luxury service” in the economics-jargon sense that demand increases with income; but private providers care for sick children from both the poorest and the richest households (though they may be different private sector niches). Once again, we see that private providers are an integral part of health service delivery, with much variation that is

³ Note that in all cases, the dependent variable is the natural log of the percentage of observations that received private care among all the households in a given wealth percentile of a given country. Wealth percentiles were determined for each nation based on the DHS Wealth Index. Observations from households that received both public and private care for a given service were given half weight. For more detail on the methods and the regression results, see Eggleston (2022).

system-specific and service-specific. It is certainly not the case that government provision is unimportant even for the wealthier households in these lower-income countries. Policy makers need to take account of such information when assessing the potential for new approaches to collaborative governance in the health sector.

B. Correlation Is Not Causation: Organizational Form and Performance

As the heterogeneity described in the previous section suggests, there is no one-to-one correspondence between a given organizational form and the patients that it serves. Other research has highlighted that quality varies among providers of the same ownership form as much as average quality varies across ownership forms (e.g., Eggleston et al. 2008, Das et al. 2016 and 2020). Even a strong correlation between ownership and performance in specific cases does not necessarily mean the relationship is causal: another underlying factor could be driving both. This section briefly outlines the long literature documenting large variations in performance within the same ownership form (e.g., private clinics), and little systematic or enduring evidence that any given ownership form outperforms others for specific services or roles—although comparative advantage suggests some forms may on average be preferable (as noted in the conceptual framework articulated earlier).

Quality of health services is multidimensional and can be measured in many ways, a few of which are free of controversy as representative or comprehensive metrics of performance. Nevertheless, policy makers cannot avoid the need to measure quality and strive for value (high quality at affordable cost), since neither ownership form nor other salient characteristics are guarantees of quality or substitutes for monitoring and rewarding high value. For example, the famous “Preston Curve” of life expectancy versus per capita income for countries of the world clearly shows wide variation in survival performance for countries and territories of similar per capita income. Of course, part of that variation arises from the social determinants of health.

Among high-income countries, empirical evidence reveals considerable variation in quality among providers of the same ownership form (Eggleston et al. 2008). Depending on the measure of quality used and the segment of the health sector studied, variation across health providers of one ownership form may dwarf the variation between ownership forms. Thus, there is no presumption that private or public ownership signals innate superiority, under most circumstances.

This is not to say that ownership form is unimportant or does not matter for performance; this report is dedicated to the notion that health systems need to leverage the strengths of public and nonstate organizations to become stronger and more resilient. Rather, stewards of health sectors need to be able to differentiate the high-performing from low-performing organizations of any ownership form, and design policies to improve or weed out the low performers while capitalizing on the high performers to deliver value: high-quality services at affordable costs, responsive to patients, and innovating to meet the changing needs of the population.

Since no ownership label can be safely used as a proxy for “good” or “bad,” leveraging public-private collaboration for social benefit requires measurement and monitoring of performance, and design of incentives to reward value. With such a system, policy makers can choose public and private partners based on measured aspects of performance or social value. However, achieving this ideal is extremely difficult for many aspects of health and social policy, plagued as they are by externalities, long time horizons, and intangible aspects of “consummate performance”; thus, effective collaborative governance is challenging. A few case studies illustrate the diverse approaches and experiences of several countries in different parts of the world and with different resource endowments.

C. Case Studies: Evidence from Three Low- and Middle-Income Countries in Asia and Comparative Perspectives from Mexico and Canada

Case studies on public and private provision of health services, elderly care, nutrition, and other social protection services provide context for applying the principles of collaborative governance. The selected cases for LMICs cover the PRC, India, and Indonesia, followed by an example of relational contracting in a high-income setting (Canada). More detail related specifically to responding to the pandemic is covered in the following section; here, the focus is on pre-pandemic health systems and the role of public and private stakeholders.

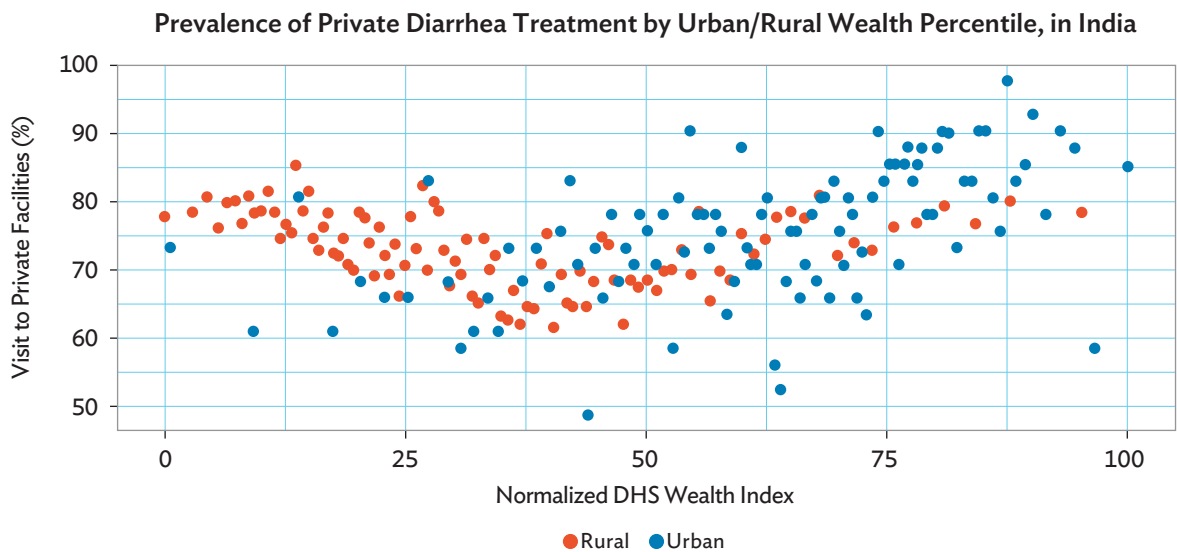
(i) Case Study 1: India

India has a remarkably diverse health service delivery system with striking heterogeneity of skills and qualifications within the mixed-ownership ecosystem of providers. In the analyses of DHS data, the mixture of service providers was readily apparent. Figure 3 shows the percentage of visits to private facilities when families take ill children for treatment of diarrhea. The horizontal axis arrays the households according to their percentile distribution of the wealth index. We see that rural households tend to be poorer and use more private providers than the medium-wealth households in rural areas; the wealthier households (more prevalent among those residing in urban areas, as shown with darker dots) also tend to use private care more frequently than their medium-wealth counterparts (Figure 4). For childbirth, India well illustrates that public facilities often serve the “broad middle,” not necessarily the lowest income or lowest-wealth households. This is because the poorest give birth at home in almost the same proportion as in public facilities; the private facility share increases with wealth more quickly than the at-home share declines with wealth, so that the private share is over 50% for households in the highest wealth decile (Figure 3 lower panel).

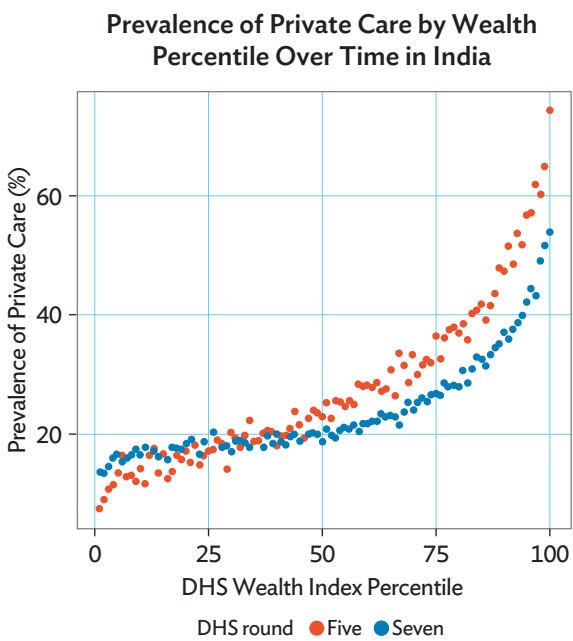
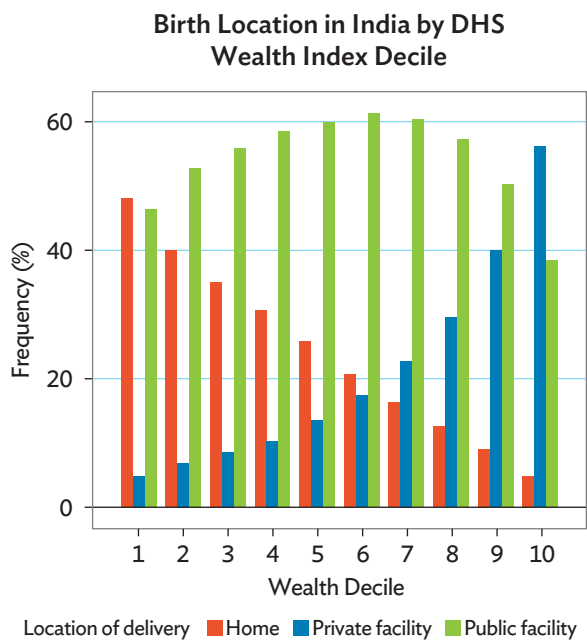
While the health system has changed in many ways over time, this feature of a mixed ecology of providers is an abiding feature. One way to examine changing service use patterns over time is to contrast the round 5 and round 7 waves of the DHS, spanning a decade or more since the 1990s. As shown in the lower panel of Figure 3 for India with the regression-based output across all DHS services, the graph of share private use by wealth is “twisting downward,” such that utilization of private providers by the poor is slightly higher but overall little changed, and utilization of private providers by wealthier households is lower than in the 1990s. These changes once again show a kind of convergence toward a pluralistic health system for both the poor and the rich, rather than a definitive move toward one ownership form or another as India develops, urbanizes, and strives to strengthen its health system while moving toward universal health coverage.

India’s case also illustrates the benefits and limitations of strong incentives for private sector providers, such as fee-for-service encouraging delivery of more, and higher-margin, services. The theory section earlier highlighted that stewardship of pluralistic systems requires trying to leverage the private sector capacity to respond to incentives with innovations while reducing the adverse impacts of cutting corners on unmonitored aspects of quality (Hart, Shleifer, and Vishny 1997) or of inducing demand for services not really needed. Das et al. (2016) provide an insightful and rigorous case study of public and private health service use in India illustrating these trade-offs. They focus on the all-important and understudied case of first-contact or primary care in rural areas. Their study design is distinctive for employing a compelling method for measuring quality of care, based on an “audit study” that includes the same providers in their public and private practices. Somewhat surprisingly, they find that formal medical qualifications are neither necessary nor sufficient as a marker for good primary care quality. They also show that “among doctors with public and private practices, all quality metrics were higher in their private clinics. Market prices are positively correlated with checklist completion and correct treatment, but also with unnecessary treatments. However, public sector salaries are uncorrelated

Figure 3: India—Patterns of Use of Private Providers and Change in Use of Private Providers Over Time



Each point represents the median of an urban/rural wealth percentile.



DHS = demographic and health survey.

Note: Data pertains to prevalence of private diarrhea treatment by urban and/or rural wealth percentile. Each point represents the median of an urban or rural wealth percentile.

Source: Author analysis of Demographic and Health Survey data. The DHS Program. <https://dhsprogram.com/> (accessed January 2022).

with quality” (Das et al. 2016, p. 3765). Thus, efforts to restrain private sector catering to observable quality measures while skimping on other aspects of quality might usefully be combined with renewed efforts to reward service quality in the public sector.

These trade-offs are also evident for inpatient services in India. For example, in recent rigorous empirical research, Jain (2022) clearly documents ways in which private hospitals respond to the incentives and opportunities under government insurance.⁴ She shows a specific set of empirical results documenting shirking or profit manipulation, i.e., charging patients for services to which they are entitled without copayment under the program. This research vividly underscores the risks of fraud in programs that rely on providers to comply with requirements that entail negative net revenue (e.g., if reimbursement does not accurately reflect the costs of service delivery). Nevertheless, her evidence that private providers do provide services and pass-through about half of payment changes could be understood as showing that private providers acted partially as nonprofits, absorbing some uncompensated care while seeking net revenues from profitable services. (Please see her full paper for the important context and details.) Her research is also an excellent example of working with government agency administrative data to provide evidence to policy makers, and has been cited by policy makers when discussing further improvement in the national insurance program for the poor as it navigates India’s pluralistic service delivery system.

Expanding government health insurance programs targeting poor households in India have enlarged the government purchaser role, especially since the launch of the National Health Mission. Moreover, steps for continuous generation of evidence for resource allocation include establishment of a body for Health Technology Assessment in India within the Department of Health Research. These embody encouraging steps toward basing decisions about the allocation of scarce resources for health on evidence about what works.

As recent research by Dupas and Jain (2021) highlights in rigorous detail, expanding government coverage does not guarantee equal access, especially if households prioritize some members over others. They show that “females are particularly under-represented in tertiary, chronic, and private hospital care (relative to secondary, one-time, and public hospital care respectively), and receive lower value care. Given that private and tertiary care are typically perceived as higher quality, more specialized, and more expensive, these disparities suggest that households are willing to spend more and seek better care for males than for females” (Dupas and Jain 2021, p. 16). An approach that tried to blame or leverage private providers would be misplaced if the cause is household prioritization of men over women. Thus, effective collaborative governance relies on evidence-based policymaking that starts with analysis of the root causes of a problem. Public purchasers and their nonstate collaborating organizations should strive to search for causes and evaluate different approaches to understanding the broader socio-cultural context to bring value to all, not just to those currently served or most likely to be the first to benefit from expanded government programs.

(ii) Case Study 2: People’s Republic of China

The PRC illustrates a different context for government stewardship of a mixed ownership health system than that of India, with a similarly large and diverse population. The PRC’s authorities strictly uphold and proclaim the role of government at the “commanding heights” of the economy, from strategic industries to pillar institutions such as the most prestigious hospitals and universities.⁵ Yet the role of the private sector has expanded quickly in many traditionally government-dominated arenas, including the health

⁴ See the clear explanation of her methods, data, and conclusions in her webinar at R. Jain. 2021. Private Hospital Behavior Under Government Insurance in India. <https://www.youtube.com/watch?v=rrcjb6GdRg>.

⁵ This section draws from several recent studies cited in the reference section as well as Eggleston (2020), which includes figures for the PRC’s rural and urban health care infrastructure and changes over time.

sector. For example, hospital admissions to nongovernment hospitals have grown from a tiny fraction to almost one in five admissions (with 9% each in private nonprofit and private for-profit hospitals, and the remaining 82% of hospitalizations in government hospitals by 2018; see Eggleston 2022). In education, since 2003, more than one in 10 Chinese college students have attended a private institution of higher education, with the private share reaching 15% by 2016, more than half the share of private enrollments in the US (28%).

The mixture of public and private providers within the PRC's health system stems from many policy changes (e.g., allowing nongovernment providers, later defining and encouraging nongovernment not-for-profit status) undertaken as the government strengthens its systems for medical care, population health, and support of healthy aging for its large and rapidly aging population. The PRC's national health reforms of 2009 continued many reforms undertaken since the early years of the 21st century, including consolidating a system of social health insurance covering the entire population for basic health services. This achievement of UHC contributed to a surge in health care utilization while reducing out-of-pocket costs to patients—which declined from 56% in 2003 to less than 30%. An expanded basic public health service package complements the UHC. The “Healthy China 2030” blueprint sets forth goals for health service delivery. The PRC has achieved considerable progress in health measures such as child vaccination rates and healthy aging. For example, the PRC's life expectancy had improved to 76.5 vs. 78.6 in the US pre-pandemic, but then overtook the US in 2020, with life expectancy at birth of 77.3, whereas in the US life expectancy at birth fell to 77.0 in 2020.⁶

Nevertheless, there remain several issues of concern that involve reaching out to multiple stakeholders to address, including community groups and nongovernmental providers or suppliers (e.g., of cigarettes, health devices, traditional medicines, nursing home services, and so on). Regarding population health, examples include high male smoking rates and large urban–rural and regional disparities. The PRC's density per 1,000 population of skilled health workers—doctors, nurses, and midwives—rose from 2.87 in 2002 to 4.63 in 2015, a 60% increase in a dozen years; however, it is still less than half (37%) of that of high-income countries, with significant urban–rural and regional disparities in number and training. In 2010, the PRC launched a program to recruit and retain doctors in rural areas and has had some success, although large disparities remain. According to the Healthcare Access and Quality index, the PRC has achieved large improvements nationally, but the 43-point regional disparity within the PRC is the equivalent of the difference between the highest in the world (Iceland) and the Democratic People's Republic of Korea (GBD 2016 Healthcare Access and Quality Collaborators 2018, Fullman et al. 2018).

The PRC's total health expenditures of approximately 6% of GDP amount to an expenditure per person that is about average for upper-middle-income countries but well below that for high-income countries. Rural and informal sector employees have less generous coverage. The pandemic quite likely will give a significant and long-lasting boost to telemedicine and other tech-enabled forms of care (see section on technology below), although innovative business models in “Internet Plus” health care have not yet been fully integrated into the health system and social insurance coverage. The PRC, like many other jurisdictions (e.g., the Republic of Korea, Singapore) rolled out technologies for contact tracing during the COVID-19 pandemic and its associated strict “zero-COVID-19” measures, drawing on collaboration with various private sector technology firms.

⁶ See discussion of the PRC's 2020 census and demographic change by the three experts in the Asia Health Policy Program webinar on 14 April 2022 (see footnote 4).

Arguably the most important and most general lesson for any effort to harness private capabilities to public purposes is that the government must take on new roles to ensure creation of public value. Those roles may be unfamiliar to public servants, as well as to their private counterparts. The government agency must also acknowledge the legitimate concerns of private collaborators and work to align their interests with creation of public value, not undercut their interests to appropriate value exclusively to the government.⁷ Several of the PRC's early projects engaging the private sector outside of the health sector—but in arguably related programs, mostly in infrastructure construction—illustrate the difficulties when one or both sides seek advantages and are not dedicated to transparent adherence to mutually accepted guiding principles of the collaboration. For example, the private parties to one of the PRC's first privately financed “PPP” projects, the Citong Bridge in Fujian Province, never received the anticipated toll revenue from the 30-year concession term, in part because the municipal government quickly commissioned several other toll-free bridges.⁸ Another case was the Hangzhou Bay Bridge, announced as a PPP to much fanfare, but later acknowledged as a failure; both the public and private participants had underestimated the risks and nature of collaborative governance needed to accomplish this complicated infrastructure project on time and on budget (Wang and Krantzberg 2016). Even in Hong Kong, China, private partnerships in nontraditional areas such as health services have been problematic (Wong et al. 2015). As discussed in more detail in the health care chapter of Eggleston, Donahue, and Zeckhauser (2021), the PRC has achieved much progress with collaborative governance but also faces many continuing challenges in generating evidence for effective collaboration to address the country's key health challenges.

One illustration of those challenges arises from the PRC's efforts to harness public and private stakeholders to care for an aging population. The PRC case usefully underscores the large role of nonstate actors even when most medical care providers are government-owned and managed. The proportion of the PRC's population aged 60 and older is projected to more than double over the next 3 decades, reaching 33% by 2050. Policies seek to address this huge demographic adjustment alongside the many other social and economic challenges the country faces during and after the pandemic. Financing for long-term care for the elderly remains a concern even as there have been pilots for long-term care insurance. Coverage is uneven, and most households pay for or directly provide caregiving for their older frail family members. The PRC's “national rating system for elderly care institutions” and other initiatives represent interesting developments that other LMICs may wish to study for lessons. Such a system like the Nursing Home Compare in the US strives to standardize and improve the quality of long-term care services across government-owned and nongovernment providers on the same terms.

To enhance the probability of a sustainable solution drawing on “social forces” beyond reliance on taxpayer financing, policy makers at local, provincial, and national levels can enhance and deepen their collaborations to generate evidence for collaborative governance that is just as rigorous as the evidence expected of pharmaceuticals or other treatments. As one example of designing a study jointly with local policy makers to address critical questions about effective programs, Ding et al. (2021) worked with the Center for Disease Control and Prevention of Zhejiang Province and Tongxiang County to study a program of primary care management of diabetes and hypertension. They find that compared to patients in townships with median management intensity, patients in high-intensity townships have 4.8% more primary health care visits, 5.2% fewer specialist visits, 12% fewer inpatient admissions, 4% lower spending, better medication adherence, and better control of blood pressure. Those under primary care management for one more year are 17.5 percentage points more likely to have blood pressure under control, compared to a mean of 52.3% of managed patients having blood pressure controlled, a 33.5% improvement. On average in this relatively high-income part of the rural PRC, 9.8% of patients suffer

⁷ An extreme form would be nationalization.

⁸ See Knowledge@Wharton in collaboration with E-House China (2018).

from stage II hypertension; only 4.4% do when under more intensive primary care management, a 55% improvement. These results suggest that primary care management improves net value, achieving better health outcomes for the same or lower resource use.

Thus, the PRC's experience may help other aging LMICs prepare for the intersection of UHC with demographic change, whether their systems are pluralistic or government-dominated, because resilient systems must be able to assure that older patients with chronic conditions have access to necessary care, while balancing the need for "harmonious proportions" (see ethical postulates) for sustainable financing.

(iii) Case Study 3: Indonesia

This brief case study focuses on Indonesia's experiences with stewardship of a pluralistic health and social welfare system, especially in generating evidence about what works in the "make or buy" decision for social support and social protection programs. Indonesia's health system involves a mixture of ownership forms; nationally, inpatient admissions are about 55% in public hospitals and 45% in private ones, while the corresponding figures for outpatient visits are 40% in public clinics and 60% in private clinics (Banerjee et al. 2021). Pharmaceuticals are another arena where the private sector dominates, accounting for three-quarters of the market in Indonesia (WHO 2020, p. 56).

Beyond medical care services, many other social determinants of health matter for health outcomes, especially in LMICs, including efforts to assure affordable access to good nutrition. The focal study here is a large program in Indonesia that subsidizes food distribution, showcasing the role of rigorous empirical evidence about public outsourcing of service delivery in Indonesia (Banerjee et al. 2019). This study not only can inform design of similar programs in other LMICs but can also serve as a model of embedding careful evaluation within a large social protection program so that policy makers have nuanced and solid evidence for their decisions about scaling up important programs.

Focusing on Indonesia's largest targeted transfer program, the Raskin program for food delivery (subsidized rice), Banerjee et al. (2019) collaborated with policy makers to carry out a randomized control trial of the "make or buy" decision. Efficient delivery of subsidized rice from government warehouses to deserving households is a task that may benefit from private sector initiative in reducing cost for efficient delivery; but this service might also be vulnerable to shading on noncontractible quality (e.g., low-quality rice or mishandling of it, as the 1997 framework of Hart, Sheifer, and Vishny would suggest) and/or open to corruption.

Banerjee et al. (2019) study the results when the central government offered localities the option to pay a private provider to perform a service that had previously been provided by the village government. They were able to measure the quality of rice delivered and the actual prices households paid for the rice relative to the government wholesale price. In this field experiment across 572 municipalities, they find that "allowing for outsourcing the last mile of food delivery reduced operating costs without sacrificing quality. However, the prices citizens paid were lower only where we modified the bidding rules to encourage more bidders. Higher rents are associated with greater entry despite elites' efforts to block reform. In this context, the option to outsource and sufficient competition generated significant benefits relative to public distribution" (Banerjee et al. 2019, p.102). In other words, in this Indonesian procurement case, despite some evidence of blocking by powerful elites, where high rents attracted more bidders there was more outsourcing, which improved outcomes. Thus, purchasing vital services from private providers requires careful design and evaluation of the program to avoid payoff manipulation (rents or excess profits) and the design of collaborative service agreements that take into account interactions between incentives and local competition.

(iv) Comparative Case: Mexico

For a comparative perspective, included in this series of cases are short synopses of collaborative cases from Mexico and Canada. While many other cases for Mexico could be discussed, for brevity, the focus here is on a case that reinforces the recommendation that rigorous evaluation be applied to all ownership forms, with no presumption that private or government providers alone can deliver a “magic bullet” for bringing value and innovation.

Private sector supplements to public programs can improve service delivery, such as delivery of chronic disease management. As Bronsoler, Gruber, and Seira (2021) document, a private supplement for diabetes management in Mexico led to improvement in health outcomes for participants; importantly, those improvements arose not through private providers enhancing efficiency of each service delivered, but rather by promoting patients’ overall attachment to care and follow-through.

The Tongxiang case (Ding et al. 2021) shows a similar result within a public system. Both cases highlight once again that policy makers need to keep an open mind, generating evidence about intended and unintended outcomes to see what works. Local governments and other stakeholders should not be mired in an ideologically blinkered vision about ownership, but rather should engage state and nonstate actors to leverage the strengths of each to serve population health, such as culturally appropriate and convenient community-based management of chronic diseases.

(v) Comparative Case: Canada—Relational Contracting with Guiding Principles in a High-Income Setting

At both the health system level, and for specific purchaser–provider relationships, adjustment to the pandemic and resilient continuation of patient care during other unforeseen circumstances proved more effective if parties had invested in appropriate preparation. For some collaborations, that preparation involves collaborative governance arrangements with relational “vested” contracting and specific guiding principles written into contractual agreements. One prominent example comes from Canada, as detailed in Frydlinger and Hart (2022).

A government purchasing agency, the Vancouver Island Health Authority, contracted with a nonstate organization for provision of hospitalist physician services, South Island Hospitalists. The original contract had not worked well, and frictions had developed such that both parties felt the relationship was fraught, tense, and almost dysfunctional. For example, the purchaser (Island Health) had not been very accommodating of the hospitalists’ concerns when policy changes augmented their workload; that tension undermined mutual trust to such an extent that some hospitalists refused to admit new patients from the emergency room, and Island Health responded by suspending the hospital privileges of some hospitalist physicians.

Both parties later agreed to try a new approach embracing guiding principles. As Frydlinger and Hart (2022, p. 8) describe, “the first step is to establish a partnership mentality. Island Health and South Island made a conscious effort to create an environment of trust—one in which they would be transparent about their high-level aspirations, specific goals, and concerns. The parties chartered a team of 12 administrators and 12 hospitalists, who agreed to work together to establish a meaningful and healthy relationship... In Step 2, the parties create a shared vision and objectives for desired outcomes that flowed from the shared vision: excellence in inpatient care, a sustainable and resilient hospitalist service, a strong partnership, and a best-value hospitalist service. The joint team delved deeper, crafting high-level desired outcomes, goals, and tactical and measurable objectives.... In Step 3, the parties adopt six guiding principles” (Frydlinger and Hart 2022, p. 10); those principles were articulated and discussed earlier in the ethical principles section of this report.

To illustrate the importance of this governance process for successful public–private collaboration, consider what Jean Maskey of the South Island Hospitalists said: “I think the guiding principles are at the root of why our relationship is no longer contentious. We are now talking about tough issues in a tight fiscal environment in a healthy and more productive way.” As Frydlinger and Hart conclude, “with the mindset achieved through Steps 1–3, the development of the contract becomes a joint problem-solving exercise rather than an adversarial contest.” This success story could be replicated and scaled in LMIC and other high-income countries alike, building evidence about what works best in different settings.

V. PUBLIC-PRIVATE COOPERATION IN RESPONDING TO THE COVID-19 PANDEMIC

A crisis underscores what can be forgotten in normal times: the vital social and economic importance of investing in a high-functioning health system. Even now, more than 2 years after the pandemic began in 2020 and multiple extremely efficacious vaccines have been developed, much remains unknown about the coronavirus and its variants. Humility rather than triumphalism seems most appropriate. Yet clearly some systems have navigated the crisis better than others; taking stock is important for navigating the trade-offs still looming during this pandemic and preparing for the next inevitable shocks.

Addressing a pandemic appears to be much more a question of political economy than a purely public health issue. A crisis can strain any health system. What is needed are belief in science; clear and transparent communication; recognizing the hardship; and encouraging community resilience and behaviors that protect others, not scapegoating or shifting blame. In these endeavors, constructive engagement with communities, representative organizations of civil society, and a range of health service providers, can smooth the adaptation during crisis and recovery.

A. Overview of COVID-19 Impacts in Asia

Asia has great diversity in many respects, and COVID-19 response is no exception. There is no one-to-one correspondence with the strength of the health system, or regime type; pandemic control has more to do with proactive public health measures, which in East Asia have been informed by previous experiences of epidemics. Mongolia and Viet Nam do not claim their relative success stems from stronger health systems than that of richer economies. On the contrary, knowing their scarcity of resources like ventilators, and the devastation that widespread infection could cause, authorities invested early and heavily in aggressive measures to contain the virus.

Community transmission can recur even in those originally well under control with local measures of active testing and contact tracing (e.g., Hong Kong, China; the Republic of Korea; New Zealand; Singapore). The lack of testing at the beginning, or during different waves, as well as the collateral impacts on livelihoods and non-COVID-19 health care, have led to increases in overall mortality not officially counted as pandemic-generated, termed “excess mortality.”

Crises like the pandemic represent stress tests of governance, including of collaborative governance. Unprecedented measures have been implemented to contain the virus spread, and most health systems in the region are better prepared than they would have been if the original Sars-CoV in 2003 had been Sars-CoV-2. All stakeholders need to combat disinformation and support clear information and scientific response. Public health crisis experts know what any of us who are musicians or athletes know: *Peak performance under pressure comes from investment in preparation months and years ahead of time*; excellent performance under pressure does not “just happen,” even with the best of intentions.

Trust was and is critical. And trust, after all, is not built on good intentions alone. Critical is the capability to understand the science and deliver appropriate public health and curative care. Attracting, recruiting, training, and retaining skilled human resources for health will continue to be critical for building resilient health systems.

Preparation and careful planning, with due recognition of local customs and building trust of communities, are also key. For example, the minister of health of Bhutan, when asked about how Bhutan has achieved relatively good pandemic control, emphasized the detailed preparation for their vaccination campaign, which involved thinking through multiple contingencies, including how they would cope with specific vehicle breakdowns. Bhutan’s vaccination program has been praised by the International Monetary Fund and others.

B. Investing in the Health Care Workforce and Complementary Policies

One clear lesson is the need to invest in frontline “first responder” health care workers—both public and private provider organizations and their staff—who often bear the brunt of the pandemic and struggle to care for patients under incredible stress and at great risk. Analyzing data from 191 WHO member countries, Liu and Eggleston (2022) further reinforce the view that strengthening the health workforce is an urgent task in the post-COVID-19 era critical to achieving health-related Sustainable Development Goals and long-term improvement in health outcomes, especially for low- and lower-middle-income countries.⁹ Higher density of the health workforce was significantly associated with better levels of multiple health outcomes, including a lower level of COVID-19 excess deaths per 100,000 people.

The focus here is not on the failures of high-income countries such as the US in protecting their own health care workforce and other citizens or their failure in supporting a coordinated global response.¹⁰ Suffice it to point out that, as noted by others, “the Global Health Security Index failed in its predictive function: countries ranked high for preparedness and response plans as well as public health institutions faced some of the greatest problems. The International Health Regulations, adopted in 2005, proved insufficient” (Kickbusch, Leung, and Shattock 2021, p. e5).

C. Transparency in Collaborative Governance

As emphasized throughout this report, incorporating the diverse ecosystem of providers into the response is crucial when thinking about investments in building resilient health systems.¹¹ Both high-income country and LMIC pandemic responses have been criticized in some dimensions for the ways they did and did not draw upon the private sector transparently or effectively—and not always in the ways one might expect. For example, consider how arrangements for testing unfolded at the earliest stages of the epidemic that would go on to become a pandemic. The Chinese Center for Disease Control and Prevention has been criticized for the way it contracted out to three private firms, and the US Centers for Disease Control has been criticized, conversely, for not moving more quickly to invite the private sector to develop tests and provide them widely to the populace, hampering any proactive test-and-trace approach to controlling transmission.

⁹ See summary of the research at N. Ronkin. 2022. New Cross-Country Study Underscores the Importance of Health Workforce Development and Socioeconomic Factors in Affecting Health Outcomes. *Walter H. Shorenstein Asia-Pacific Research Center*. 28 March. <https://aparc.fsi.stanford.edu/news/new-cross-country-study-underscores-importance-health-workforce-development-and-socioeconomic>.

¹⁰ The tragic response and humiliation of the US has been well articulated by journalist Ed Yong. See E. Yong. 2020. How the Pandemic Defeated America. *The Atlantic*. 15 September.

¹¹ The European Observatory (2021, p. xxii) also highlights the importance of engaging and leveraging the full spectrum of providers: “Involving nongovernmental stakeholders including the health workforce, civil society and communities strengthens emergency responses. Countries have increased roles for a mix of ‘nonstate actors’ over the course of the pandemic and used them in different settings.”

Nevertheless, in some countries and contexts, a quite successful partnership between the government and many nonstate actors helped to navigate the crisis. Perhaps most prominently, governments offered streamlined and rapid regulatory processes and significant financing when collaborating with their innovative pharmaceutical sector firms to develop virus countermeasures (e.g., in Germany, the United Kingdom, and the US). Developing new, highly effective vaccines with fully vetted testing in less than a year represents a triumph of collaborative governance. In other countries like the PRC, vaccine development was more government-managed, arguably epitomizing “collaborative governance, Chinese-style”: a centrally led effort through SOEs, complemented by global scientific collaboration among entities with multiple ownership forms (Eggleston, Donahue, and Zeckhauser 2021).

Of course, collaborative governance is no panacea. Even the best collaborative governance arrangement is just the beginning of a detailed, iterative process of design, evaluation, improvement, and accountability with transparency. Such an approach promises to promote replication of pockets of excellence and islands of cost-effective innovation. Ideally, stakeholders work together to identify whether each dollar spent on health care is part of the trillion that may be wasted or the trillions that save lives and deepen the quality of life in new and highly cost-effective ways.

The principle of a new role of the state and stewardship of the whole health sector is interlinked with recruiting career-minded as well as prosocial public servants. As noted above, the Canadian case of guiding principles in hospitalist contracting underscores the importance of such arrangements for ability to function appropriately during a crisis. The prepandemic foundation of the vested contract had built trust and allowed adjustment on both the purchaser and provider sides to navigate the pandemic in the best interests of the patients served.

VI. RECOVERY FROM THE PANDEMIC

Private sector and civil society efforts, including that of the global research community, provided crucial inputs to the successful responses to the pandemic where they occurred, starting with scientific understanding of the pathogen that enabled biotech companies to develop COVID-19 vaccinations in record speed.

Evidence from Agarwal and Gaule (2022) suggests that leveraging early-stage incentives, nonmonetary incentives, and public institutions are important for scaling up global innovation. Agarwal and Gaule find that public research institutions were a key driver of the COVID-19 research and development effort, accounting for 70% of all COVID-19 clinical trials globally. Public research institutions were 10 percentage points more likely to conduct a COVID-19 trial than private firms were. In addition, studying the speed of COVID-19 vaccine development, Agarwal and Gaule (2022) find that the Chinese and the US candidates were on average 2 months faster than candidates from other countries. This crucial boost in speed was possibly due to greater provision of early-stage incentives by the policy response in these countries (Agarwal and Gaule 2022, p. 2). Pandemic response was helped by the fact that global cooperation has started to lay the groundwork for financing during pandemics, although unfortunately global solidarity has fallen short of ensuring equal access to pandemic-mitigating technologies (Kickbusch, Leung, and Shattock 2021).

One key for long-term resilience will be adopting appropriate technology for health, education, and other sectors, tailoring new technology to each jurisdiction's demographic and institutional context. As emphasized in the *World Development Report 2021*, evolving methods leverage public-private consortia to allow contact tracing while balancing concerns for privacy. Despite societal concerns about the power of big tech, these large private firms have contributed some options worth considering for contract tracing goals in the future. Examples include both the decentralized proposals of firms such as Apple and Google, and multistakeholder consortia like the Pan-European Privacy-Preserving Proximity Tracing community (World Bank 2021, p. 223). Leveraging collaborations with private sector leaders in the PRC, such as Alibaba and TenCent, to "improve the efficiency of social governance," raises concerns not unlike those in Europe and the US about the roles of large tech firms and platforms in protecting data privacy and confidentiality. These are important considerations in furthering effective collaborative governance during and beyond the pandemic.

A. Disruptions in Non-COVID-19 Health Care: Mitigating Long-term Harms from Delayed and Foregone Care

The COVID-19 pandemic and related mobility restrictions continue to cause disruptions in health service delivery, leading to patterns of reduced health care utilization that differed by age and sex, particularly among those with chronic conditions. The longer-term collateral damage from the pandemic—in terms of delayed or foregone medical care—may lead to increased morbidity and excess mortality. Reasons for foregoing care include fear of infection, transportation difficulties, and lockdown policies. An extensive and growing literature has documented the negative impact of the pandemic on non-COVID-19 health care. Public-private collaborative approaches will be needed to address these impacts.

B. Information and Communication Technology for Health

The pandemic has underscored the importance of communication while physically distancing, especially for the elderly who are the most vulnerable to infectious disease but unfortunately also most likely cut off from social integration if unable to access information and communication technology. In the Republic of Korea for example, there have been efforts to extend information and communication

technology access to the elderly by technology companies and local welfare centers. Although there persists a divide in access and use due to socioeconomic factors, reduced differences in the level of education by generation and gender suggest a closing gap in the not-too-distant future (Eggleston, Park, and Shin 2021).

The PRC has also experimented with policies and arrangements promoting technology for “aging in place” and supporting older adults at home. Most of these technologies are developed and refined by private firms and deployed in public or private care settings or in homes, and thus inherently involve a component of collaborative governance in specifying what technologies will be paid for in which settings to the benefit of which community members. Whether pilots and initiatives for “smart homes” (Zhang, Li, and Wu 2020; Meng et al. 2020) will live up to their hype and promise remains unclear. Just in the past 5 years, the central and local governments have adopted policies to support related initiatives, including three policy documents to promote smart homes for elderly care. One of the policies issued by the Ministry of Industry and Information Technology, the 13th Five-year Plan for the Aging Development and Elderly Care Services, advocated for specific action plans to further these services and establish industry standards. Careful and rigorous co-generation of evidence of impacts for community providers and jurisdiction leadership can help to guide improvements in policy and provide lessons.

In the arena of tech-enabled aging-in-place, as in other areas of building resilient health systems and evidence-based policies, tensions arise in engaging the private sector to create value for collective goals. Governance and regulation need to avoid payoff manipulation. For short-term procurement, there is little need for a partnership mentality or a vested contract with guiding principles; but in working with specific nonstate actors to provide care for the community’s most vulnerable individuals (such as poor frail elderly), local policy makers need to consider when and how to set up arrangements for collaborative governance with regular assessment of goals and opportunities to manage unforeseen contingencies.

C. Telehealth

Telehealth holds much promise for strengthening resilience and affordability of many facets of care, if incorporated appropriately by providers of all ownership forms serving patients of all ages and subgroups. The pandemic led to huge experimentation with telehealth, as documented in numerous case studies. Yet how to convert to “normal” postrecovery regular use remains controversial in some health systems; it will need ongoing research and organizational innovation. For example, in the Republic of Korea there has been controversy about telehealth, i.e., will it exacerbate crowding at high-profile tertiary hospitals and deprive primary care of patients, or will it enable more convenient and timely care even after the pandemic reduces fear of infection, without disrupting the health sector?

Little evidence is yet available about the impact of telemedicine at a population-wide level during the pandemic, which would help to inform to what extent changes initiated during the pandemic can and should continue in a “new normal.” One recent study by Zeltzer et al. (2021) rigorously assessed Israel’s experience with telemedicine’s widespread adoption during the early phase of the pandemic, the March–April 2020 lockdown period followed by a temporary return to relatively normal conditions before later waves of the virus. Israel’s experience may be informative because the leap in telehealth consultations was similar to that found in many health systems during the early or acute phases of their own coping with the pandemic: telemedicine’s share of primary care visits increased about 35 percentage points, from around 5% pre-pandemic to 40% during the lockdown peak, before settling at around 20% later in 2020. Their study suggests that telehealth is a promising supplement for health systems when integrated into a well-regulated system with accountability and monitoring. Telemedicine can increase access by increasing convenience and reducing travel costs if not the care provision costs directly, all without damaging the quality of care for conditions for which teleconsultations are appropriate.

D. Other Technologies and Incentives

Some of the most exciting developments in technology for health systems include the potential to augment human resources for health with decision support tools, most of which are invented and commercialized by private companies. Public purchasers of such technology, and stewards of mixed-ownership health systems, inherently draw upon innovation from private sector firms and researchers either through market purchases or explicit collaborations for designing and refining decision-support systems for a specific hospital, clinic, or other provider organization. Especially important will be taking account of provider skill variation in designing and leveraging technology, as recent rigorous studies have shown (see Box 2).

Box 2: Using Technology Appropriately to “Diagnose Physician Error”

Mullainathan and Obermeyer (2022) use machine learning as a tool to study decision making, focusing specifically on how physicians diagnose heart attack. An algorithmic model of a patient’s probability of heart attack allows Mullainathan and Obermeyer to identify cases where physicians’ testing decisions deviate from predicted risk. They use actual health outcomes to evaluate whether those deviations represent mistakes or physicians’ superior knowledge. Their results reveal important points that have relevance beyond the specifics of the United States health system that they study: “Physicians overtest: predictably low-risk patients are tested, but do not benefit. At the same time, physicians undertest: predictably high-risk patients are left untested, and then go on to suffer adverse health events including death.

A natural experiment using shift-to-shift testing variation confirms these findings. Simultaneous over- and undertesting cannot easily be explained by incentives alone, and instead point to systematic errors in judgment. First, physicians use too simple a model of risk. Second, they overweigh factors that are salient or representative of heart attack, such as chest pain. Thus, leveraging new technology can assist with careful evaluations of skill and biases that may disadvantage specific groups; help to understand how errors in judgment occur; and point to how information, incentives, and accountability might help to “nudge” even skilled but overburdened or stressed providers toward more appropriate treatment decisions equitably for all patients.

Source: S. Mullainathan and Z. Obermeyer. 2022. Diagnosing Physician Error: A Machine Learning Approach to Low-Value Health Care. *The Quarterly Journal of Economics*. 137 (2). pp. 679–727. <https://doi.org/10.1093/qje/qjab046>.

Artificial intelligence algorithms hold great potential to “upskill” the health care workforce in LMICs and high-income countries alike, if leveraged appropriately to augment provider expertise in ethically and culturally appropriate ways. For example, a newly developed algorithm may be able to help diagnose autism in young children, when treatments are potentially much more effective than if delayed.¹² Similar cases for diagnosing dementia and other conditions may enable health systems to use technology to lengthen healthy life expectancy by catching and (if possible) preventing or mitigating conditions earlier in the course of disease.

¹² As described in a [new study](#) published in *Biological Psychiatry*, the algorithm assessed brain scans from a sample of approximately 1,100 patients. With 82% accuracy, the algorithm selected out a group of patients whom human clinicians had diagnosed with autism (Supekar et al. 2022).

Policy response should prioritize correct “differential diagnosis” of each health policy problem; otherwise, just like a misdiagnosed patient, policy misdiagnosis may miss opportunities and may even do more harm than good. Consider the issue previously mentioned in the India case study: if older women in India are not showing up for care because families do not prioritize their care, then no amount of provider decision support attempting to correct for gender bias will have any impact on the root of the issue.

E. Designing Incentives and Accountability Mechanisms

As the famous physicist Richard P. Feynman noted, “Science is a long history of learning how not to fool ourselves.” Stewardship of resilient health systems may involve as much art as science, but Feynman’s point applies with force nonetheless: much more important than any one example or method is the commitment to (i) creating an enabling legal and regulatory framework for productive cross-sector collaboration; and (ii) gathering evidence and relentlessly innovating to explore new evidence-based approaches. Although one short section of a report cannot do the topic full justice, it is important to emphasize the need to design local and national incentives and accountability mechanisms, to strengthen government stewardship, and to foster an enabling environment for collaborative governance, during and after the pandemic.

(i) Legal Frameworks and Regulations

Jurisdictions differ in whether for-profit private organizations are legally allowed or encouraged to provide specific services. For example, it is more common for physicians to legally own clinics or hospitals (and thus to run them with net revenues supporting their own families, i.e., as for-profit private organizations) than to allow for-profit private corporations to own clinics or hospitals. This may be implicitly tied to the assumption that professional norms provide some “guiding principles” and constraints that corporate interests will ignore; some evidence about the role of private equity investments in nursing homes in the US, for example, could be cited to bolster this prudent approach. However, regulation should be neutral and not assume that any one ownership form is immune to cutting corners to increase net revenue; purchasers need to design incentives, accountability, and monitoring to identify and correct deviations from social value regardless of ownership form. Moreover, due attention should be given to streamlining bureaucracy and reducing the administrative burden of complying with regulations, so that small- and medium-sized firms as well as large firms have opportunities to serve their communities through engagement with public purchaser programs, and investment of time and effort focuses on the aspects of performance most crucial to delivering social value.

Supplementing contracts with guiding principles can be especially important if the legal system is slow or unreliable. Most legal systems also can apply common understandings, such as of what “good faith” is in negotiations and renegotiations, to support collaborative arrangements designed to deal with changing circumstances. As Frydlinger and Hart (2022, p. 32) point out, “the guiding principles can be thought of as setting out the parties’ understanding of what good faith means in their relationship. The contract laws of most jurisdictions include some version of a ‘good faith’ doctrine. Of course, it cannot be denied that there can be a downside of formality: an opportunistic party could use the threat of litigation over an ambiguous guiding principle to extract a concession from the other party. In Canada and the UK, the courts have recently applied the concept of a ‘relational contract’ in interpreting the good faith doctrine (see for example the Canadian Supreme Court in *Basin v. Hrynew* and the UK High Court in *Bates & Ors v Post Office Ltd*)” (Frydlinger and Hart 2022, p. 32).

More broadly, when governments contract for support services in the health sector and the social protection sector, they should design and monitor procurement processes to enhance transparency and to avoid collusion and corruption. Auction rigging in procurement could be considered one manifestation of payoff discretion to the detriment of the public purchaser, even when private sector discretion is

supposed to be *de minimus*. Some techniques now can be used to detect such behavior and, potentially, to correct and prevent its recurrence. A recent example in Japanese procurement is the empirical work of Kawai and Nakabayashi (2022), who document widespread collusion among construction firms.

(ii) Stewardship of the Whole Sector

Part of establishing an enabling framework for value-creating collaborative governance in the health sector is reinforcing the concept of government health ministries as stewards of whole health sectors, not just focusing on government-owned and government-managed providers and insourced programs (the “make” side of the “make or buy” decision). As McPake and Hanson (2016, p. 622) so rightly argued, “The private sector has a large and growing role in health systems in low-income and middle-income countries. The goal of universal health coverage provides a renewed focus on taking a system perspective in designing policies to manage the private sector. This perspective requires choosing policies that will contribute to the performance of the system as a whole, rather than of any sector individually. Private providers are highly heterogeneous in terms of their size, objectives, and quality. Presented with the option of affordable services of acceptable quality, data suggest that demand for unqualified, low-quality providers that are used mainly by the poor will fall. As a system progresses toward universal health coverage, the private sector could be involved as providers of publicly funded services for everyone, or as providers of services beyond those of the basic universal entitlement. In these universal systems, governments’ role as a regulator will be to ensure that public resources are used for the public’s benefit and to protect against predatory behavior by private providers.” A recent WHO report also emphasizes this important perspective of sector-wide engagement (WHO 2020), calling for better data collection and policy experimentation appropriate to each health system.

(iii) Recruiting Talent

Legal and regulatory systems should support recruiting talented and motivated civil servants. Good stewardship requires investing in capacity of the government, not eviscerating it to hope that the private sector can magically fill in where the public sector falls short. To this end, it is important to realize that selection of human resources for health is not just a licensing and validation exercise to protect safety and quality, but a way to attract talent by emphasizing opportunities for upskilling. Public service workers like being valued for doing a good job, which includes building skill and career while helping their communities and contributing to society. Moreover, in many LMICs, a shortage of human resources for health constrains health service availability and quality, especially for rural, remote, and vulnerable populations during a crisis like the pandemic. LMICs may wish to move toward professionalization of the health workforce to supplement and/or eventually replace reliance on informal service provision by religious and other charitable organizations (Ashraf et al. 2020); however, policy makers may worry that building a resilient public sector workforce in this way could remove prosocial motivation and stifle the innovations that stem from recruiting those whose “guiding principles” inherently align with social goals. Studying this important trade-off, Ashraf et al. (2020) provides a fascinating example of evidence-based policy in health sector recruitment; see Box 3.

Thus, in recruiting public servants and in collaborating with the private sector, good intentions are not the sole or defining attribute of contribution to social value. To the contrary, capacity, skills, and competence in many dimensions, enhanced by incentives that align professional rewards with delivery of social value, is a vital component of building a resilient and innovative system.

Box 3: Evidence on Recruiting Prosocial Talent to Public Service

Ashraf et al. (2020) partnered with the Government of Zambia to address the concern that material rewards might attract the “wrong types of people” to health worker positions (p.1360). They rigorously assessed two different approaches: recruitment emphasizing skills and careers, versus emphasis on community service. In one set of localities, recruitment posters said: “Become a community health worker to gain skills and boost your career!” The poster also explicitly leveraged a sense of belonging to the civil service by stating, “Become a highly trained member of Zambia’s health care system.” Finally, it set “experts in medical fields” as the peer group. In a second set of localities, recruitment posters said: “Want to serve your community? Become a community health worker!” These posters emphasized gaining “the skills you need to prevent illness and promote health for your family and neighbors.” It listed local health post staff as the peer group.

Examining the results of this randomized experiment of a crucial aspect of government capacity, Ashraf et al. (2020) find that impacts depend crucially on how applicants are screened and chosen from the applicant pool. “If applicants are drawn randomly, there might be a trade-off between talent and pro-sociality. However, if only the most talented are hired, there will be no trade-off.” Indeed, they find that “selection panels in both treatment and control put a high weight on talent, leading them to recruit among the most talented in their pool; as a result, [career-emphasis] treatment recruits are more talented and equally prosocial” (Ashraf et al. 2020, p. 1357). Most remarkably, the partnership for evidence generation allowed them to document that “agents drawn by career opportunities are more effective at each step of the causal chain, from the inputs they provide to the outcomes of the recipients. They increase facility utilization rates: the number of women giving birth at the health center is 30 percent higher, and the number of children undergoing health checks is 24 percent higher, being weighed 22 percent higher, and receiving immunization against polio 20 percent higher.” Career-minded recruits also “provide more inputs, increase facility utilization rates, improve a number of health practices among the households they serve; and the share of children under age 5 who are underweight falls by 25 percent” (Ashraf et al. 2020). In fact, these differences were so large that they find that “the effect of this selection on performance is of the same order of magnitude as the largest incentive effects estimates” (p.1358).

Source: N. Ashraf et al. 2020. Losing Prosociality in the Quest for Talent? Sorting, Selection, and Productivity in the Delivery of Public Services. *American Economic Review*. 110 (5). pp. 1355–94. DOI: 10.1257/aer.20180326

VII. DESIGNING EFFECTIVE PUBLIC-PRIVATE COLLABORATIVE GOVERNANCE

The key requirement for collaborative governance is sharing of discretion. As noted, such sharing requires analytic and managerial capability in government. Orchestrating effective collaborative arrangements calls upon a broad range of skills, from the ability to run a professional tendering process, to the commitment to creating and enforcing accountability mechanisms. Officials need to be able to guide the discretion shared with private contractors and partnering organizations in the direction of public value, while truly listening to collaborators' input and adjusting arrangements appropriately. Such skills need to be cultivated, especially in localities without much background or experience.

One approach the PRC has utilized in related arenas of governance has been supporting human capital development by rotating officials to remote areas and requiring some college graduates to serve as village officials. Evidence suggests that the "College Graduate Village Officials" program enhances village governance and improves the lives of poor households (He and Wang 2017). Such an approach could support sharing lessons and skills for collaborative governance as well. In the US and several other governments around the world, behavioral science insights teams ("nudge units") have played a positive role in identifying ways to create better public value. A similar approach could be applied for enhancing collaborative governance in specific sectors as well. More generally, highlighting the diverse skills and creative problem-solving challenges government officials face as orchestrators of collaborative governance can help to attract talented individuals to public service careers.

The credibility of the government commitment to a collaborative approach—transparently adjusting to meet the stated public purpose in new circumstances—cannot be taken for granted. This credibility and trustworthiness should be fostered with appropriate application of the 4-step analysis, assignment, design, and assessment (AADA) process. Continuous analysis and adjustment of the governance regime by honest and skilled public officials is the underpinning of effective governance. The more the system reflects the relatively complex collaborative model, the greater the importance of this function.

Applying the 4-step AADA process to refine collaborative governance has potential to create better performance. Let us consider each step of the process in a little more detail (see Box 4), applied to three examples to provide implementation case studies: pharmacies, communicable disease control, and long-term contracting for inpatient services.

A. Analyze

The first step is for government agents to analyze if a government role is merited, whether in financing or delivery, and then to analyze the benefits and costs of different delivery models or modes of delegation. For example, when screening projects and analyzing the appropriate mode of provision, a strong government role is most appropriate for services with the following characteristics: pure public goods or significant externalities; difficulties for citizens-cum-consumers to monitor; or plagued by inefficient sorting or exclusion, such as services for special-needs students by schools, or treatment of unprofitable patients by hospitals. Contracting out to the private sector is more likely to be fitting if the service quality can be readily monitored; when competition will be valuable; if dumping of recipients is not an issue or is easily prevented; and when rapid innovation is expected and/or desired (Eggleston, Donahue, and Zeckhauser 2021).

Box 4: Suggested Steps to Effective Collaborative Governance

Should the government be involved at all? Is there or should there be partial or full public financing of the service?

- If yes, should government produce the good or service itself? Analyze costs and benefits.
- If yes (benefits exceed costs), proceed with government production (i.e., “make”); periodically reassess.
- If no (benefits lower than costs), consider how best to delegate responsibility (i.e., “buy” with the AADA cycle):
 - Analyze the specific goals of collaboration and potential private collaborators.
 - Assign appropriate responsibilities to collaborators.
 - Design the contract, incentives, and accountability mechanisms (Donahue and Zeckhauser 2011).
Consider whether the collaboration has the following characteristics: long-term, with outcomes difficult to define in detail in advance, innovation critical for success, large scope for discretion, and significant uncertainties and need for adaptation. Does this collaboration feature these characteristics?
- If yes (the collaboration has the above characteristics), then *co-design* the contract, incentives, and accountability mechanisms by investing in establishing a relational contract with guiding principles (Frydlinger and Hart 2022):
 - Establish a partnership mentality (charter a governance team)
 - Create a shared vision and objectives for desired outcomes
 - Adopt and clearly define what the six guiding principles mean for this collaboration:
 - (i) Reciprocity
 - (ii) Autonomy
 - (iii) Honesty
 - (iv) Loyalty
 - (v) Equity
 - (vi) Integrity
- If no (i.e., this collaboration is not long-term with large scope for discretion), proceed with contract design without investment in a relational contract with guiding principles, clearly defining contract outcomes and accountability.
 - Assess whether the arrangements meet the collaborative governance goals and deliver good public value (Eggleston, Donahue, and Zeckhauser 2021). Repeat regularly to assess alignment with social goals, including both intended and unintended effects.

Sources: J. D. Donahue and R. J. Zeckhauser. 2011. *Collaborative Governance*. New Jersey: Princeton University Press; D. Frydlinger and O. Hart. 2022. [Overcoming Contractual Incompleteness: The Role of Guiding Principles](#) (Revised Jan. 2022). Working Paper; K. Eggleston, J. D. Donahue, and R. J. Zeckhauser. 2021. *The Dragon, the Eagle, and the Private Sector: Public–Private Collaboration in China and the United States*. Cambridge: Cambridge University Press.

For example, many health systems rely heavily on the private sector for operating pharmacies even when public financing through UHC covers most of pharmaceutical spending, since pharmacies exhibit many of these features for which the private sector has a comparative advantage. As the WHO notes, “the retail pharmaceutical component of the health system is sometimes inefficient, inequitable, unevenly distributed, and expensive. But it mostly works, and despite some shortcomings pharmacies function much like groceries, bakeries, or other commodity retailers. As a result, most countries in Europe regulate pharmacies as a traditional, privately owned, market” (WHO 2020, p. 38). By contrast, control of infectious disease is almost universally a mandate of government agencies, given its characteristics of a local or national public good with strong externalities, although cross-sector collaboration for innovation can be an important component. For example, public-private partnerships have been comparatively common for some diseases such as tuberculosis. Some intermediate cases should be flagged for consideration of a collaborative governance approach; an example is a local health authority seeking a long-term contract for inpatient care serving a wide range of patients including complex and vulnerable populations, such as the Canadian case study regarding hospitalist services discussed earlier (Frydinger and Hart 2022).

B. Assign

If a collaborative approach appears warranted, the government next needs to assign responsibility, i.e., figure out who the private agents might be and assign tasks to each according to their comparative advantages, balancing potential benefits against risks of payoff and preference discretion. Ownership form affects the likelihood of certain kinds of behavior. Governmental organizations may face relatively high barriers to certain kinds of time-sensitive innovations, so choice of delegation via collaborative governance is often undertaken to harness the power of private counterparties to do so. Choosing the type of organization depends on the nature of the good or service, and the risks of shared discretion that it might entail. For-profit organizations are more likely, all else remaining equal, to seize opportunities to manipulate consumers or exploit opportunities to direct the value or surplus from the collaboration to themselves, a risk we term payoff discretion. Nongovernment nonprofits play important roles in health care and related sectors in many countries (Arrow 1963). But nonprofits may seek to further their narrow missions at the expense of broader social goals, a risk Donahue and Zeckhauser (2011) call preference discretion. However, ownership form itself does not automatically guarantee that the comparative advantage of that form will emerge, or that one form will not masquerade as another (e.g., a nonprofit as a “for profit in disguise”). A SOE is not immune to displaying preference and payoff discretion; a for-profit firm can bring great social value. Organizational forms must be embedded in a proper governance framework to attain public value and guard against hazards (Eggleston, Donahue, and Zeckhauser 2021).

In the sample projects mentioned above, certified pharmacies could be regulated as private providers of publicly financed pharmaceutical benefits under UHC, with or without the need for selective contracting or assignment of specific roles; patients “vote with their feet” and provide feedback both to the purchasing authority and to the investors or nonprofits running the pharmacies about what customers value. Similarly, control of infectious disease would entail specific purchasing arrangements for vaccines and payment of providers for delivering related services to patients, but would not typically involve a long-term collaborative governance process with assigned private sector partners except for specific functions such as innovations in developing future vaccines as a public good. Inpatient services lie somewhere in between, depending on the local context.

C. Design

The next, crucial step is to design the roles, responsibilities, incentive structures, and accountability mechanisms for all assignees. Since the goal of collaboration with private counterparties is often to harness their alacrity in responding to incentives—especially when collaborating for information and productivity—those incentives need to be carefully designed to align with public value. The private parties need to know how they will be monitored and rewarded, how long they will retain their responsibilities, and so on. Even if the project or domain (e.g., control of infectious disease) is deemed to require that government directly control the overall process, the design step may identify elements or components that can be delegated efficiently to a private firm. Public–private collaborations that are especially important and long term should be selected for relational contract governance with guiding principles, as discussed in the Canadian example (see Box 4). That extra investment need not be made for arm’s length purchasing of relatively well-defined products, such as pharmacies dispensing prescriptions. Once a payment system for services under UHC is designed, no further design phase would be needed for expanding or contracting the number of pharmacies available to patients, although periodic assessment of this market-based approach would be prudent.

D. Assess

Finally, government and/or its private sector agents must assess performance to determine whether the contract or collaboration is functioning as intended. Just as we should expect variety in organizational forms within a country or subsector at any one point in time, we should anticipate that the right ownership model for any given task might change. Across myriad sectors, arrangements that once made sense tend to break down because of a range of internal and external stresses, such as new technologies, new political forces, or just the natural encrustation of institutions that operate in an area over time. Thus, a collaborative governance arrangement such as the Canadian example of hospitalist services would entail a governance team that periodically reassessed its operations. The examples of pharmacies and control of communicable disease would also call for review occasionally to check that collective goals are being met, but assessments would typically not need to be as frequent or detailed as for a collaborative governance arrangement.

Box 4 gives a “quick start guide” summarizing the suggested steps for policy makers to promote effective collaborative governance.

VIII. POTENTIAL ROLE OF REGIONAL COOPERATION ORGANIZATIONS

There are multiple potential roles of regional organizations (e.g., the Association of Southeast Asian Nations) to help build resilient health and social protection systems. First, they can be responsive repositories of information exchange on “what works” in which contexts, with rigorous evidence to back up the recommendations. They can link researchers in the region and beyond to specific policy questions of the member states, and cultivate a unified, rigorous framework for evaluating policies. One example of what a regional organization could champion and curate is the “Opportunity Insights” research team’s summary of studies that assess the “marginal value of public funds” in many interventions and programs, enabling comparison across programs and sectors for the best allocation of scarce public funds.¹³

Other potentially useful roles, in coordination with international development organizations, would be supporting regional “behavioral insights” or “nudge unit” evidence for improving public programs and processes in different contexts. They can assemble sample and standard contracts, including relational contracts incorporating guiding principles. They can also use their convening authority to bring together parties for constructive dialogue on collaborative governance in health and social protection. Often regional public goods are less ideologically divisive than some other topics, so health policy dialogue could have the added benefit of fostering channels of communication and building trust for other aspects of cooperation and collaboration (such as environmental protection and climate resilience).

One exciting possibility would be to build a group with regional expertise, actively recruiting young talent from member countries to learn the repository of “best practices” and become part of the network of stakeholders co-generating targeted knowledge for policy, e.g., as discussed above in the Ashraf et al. (2020) and Ding et al. (2021) papers. Increasingly, development economists and others work directly with policy makers embedding studies within the scale-up of policies to help provide evidence for later policy decisions. During a crisis, parties can leverage the accumulated knowledge and trust to move quickly (since decisions cannot wait to gather evidence during the crisis itself, except in specific circumstances). Member countries ideally would link training opportunities to a clear career path of advancement for young talent.

One potentially fruitful component of a holistic approach would be leveraging what has been learned from efforts like [Choosingwisely.org](https://choosingwisely.org) and regional counterparts—in Canada, or in India—to provide support for public–private dialogue on low-value and high-value care, making information available to stakeholders, providing examples of success stories and failures, and tailoring to local contexts. There is opportunity to use shocks like the pandemic to rethink emphases and processes, prioritizing resuming high-value services and experimenting with deprioritizing or discontinuing low-value services, even though such efforts can be politicized and thereby eviscerated. As Rourke (2022, p. 1294) points out for the case of the original context, the US health care system, “Choosing Wisely has allowed doctors (and medical societies) to look like they are addressing low-value care without actually being forced to make any substantive changes.”

¹³ Please see Policy Impacts. What is the MVPF? <https://www.policyimpacts.org/mvpf-explained/what-is-the-mvpf>.

Regional cooperation can be vital for developing an understanding of lessons from economies and societies, both those considered similar and diametrically opposed. Indeed, cooperation across public and private stakeholders of many countries is needed to address global public goods even when those stakeholders may disagree on many other policies. Some regional organizations like Association of Southeast Asian Nations have been castigated for being ineffective or toothless; yet they have also made headway while adhering to a consensus vision. As emphasized in Eggleston, Donahue, and Zeckhauser (2021) using the case of the PRC and the US, historical and cultural backgrounds lead to path dependency in the organizational ecologies and institutional frameworks that shape all policies. Over long periods of history, and under different leaders and administrations, countries forge distinctive paths of collaborative governance with lasting characteristics. Regional organizations can help to make this menu of experiences available to others so that stakeholders may seek lessons most instructive for forging productive collaborative governance arrangements fitting their own distinctive circumstances.

IX. POTENTIAL ROLE OF REGIONAL MULTILATERAL DEVELOPMENT ORGANIZATIONS

In addition to regional cooperation organizations, there is a vital supplementary and supportive role for multilateral development banks such as ADB in supporting member countries to leverage public-private collaboration. For example, they should work with, support, and not duplicate efforts of other multilateral health sector organizations, like the Asia Pacific Observatory and European Observatory on health systems and policies. Ideally, ADB could strengthen role of the Asia Pacific Observatory, especially in its COVID-19 series, to examine recovery from the pandemic in health and more broadly—what each country has articulated as goals, steps toward them, progress toward SDGs and beyond.

Multilateral development organizations can also work to assemble and assess the appropriateness of standardized contracts and case studies of successes and failures of using guiding principles within government purchasing of health services and other collaborative governance arrangements.

Regional organizations can also promote best practices in regulating and reimbursing for telehealth visits and proving guidance addressing jurisdiction-specific laws, such as in the US: “The future of digital health care relies not only on digital inclusion but also on the extension of policies enacted during the COVID-19 public health emergency that *align with value-based care* and equity. *Harnessing community anchorsites* will require the permanent removal of geographic restrictions and originating-site restrictions, which depend on a patient’s location during a telehealth visit. *Simplification of interstate licensing laws for clinicians* would also enable digital tools to increase access to care for marginalized populations. In addition, *reimbursement parity among various forms of telehealth, including audio-only visits*, would ensure that patients without full digital access could still benefit from remote care, including mental health services” (Rodriguez et al. 2021, italics added).

Incorporating new technologies into everyday health sector work requires collaborative approaches. European experience also shows that “as more people have access to remote monitoring equipment, there are many more possibilities that will bring benefits to everyone. It will be important to harness these innovations and good practices and integrate them into health systems in the post-pandemic era. This means *more training for the workforce in digital health skills* as well as for patients and other users” (European Observatory and World Health Organization 2021, p. 95, italics added). Providers should pay attention to those who are or might be digitally excluded, and to safeguarding privacy.

Regional multinational development organizations can also play a vital role in supporting countries in navigating the difficulties, during the current fiscal pressures, of recruiting and training talented staff to orchestrate and manage collaborative governance arrangements. Importantly, multinational development organizations could utilize technical assistance funds to support the training of key public civil servants with the required skills to implement the collaborative governance approach and share best practices. Furthermore, multilateral organizations have a comparative advantage in supporting LMIC governments in identifying potential partners with good track records in the domain(s) of policy addressed by a specific project. Such organizations can play a vital role as trusted “matchmakers” between local and international private sector providers, facilitating accumulation of knowledge about projects addressing the entire value chain of a given service, and interpreting differences in business cultures to smooth appropriate implementation of the chosen governance model.

Finally, it could strengthen human capital even further if such organizations partner to support internships, training opportunities, and co-generation of knowledge for evidence-based policy with local and global research organizations and civil society partners.

X. CONCLUSIONS AND RECOMMENDATIONS

For crises like pandemics, there is the ever-present risk of lurching from complacency to panic, and vice versa. Similarly, across jurisdictions there can be extreme views of the roles of public and private sectors that cherry-pick specific experiences or stereotypes to bolster an ideologically rigid view, or lurch from suspicion to hoping for a “magic pill”—and when no such panacea emerges, reverting again to castigating one party as opportunistic or unable to provide any social value. The challenge is to overcome complacency, to prepare ahead of time, and to embrace evidence about what works and processes for evidence-based improvement regardless of ownership form. Policy makers need to recognize that no upfront preparation or prespecified arrangements can perfectly anticipate all contingencies, and therefore that a collaborative governance mechanism with agreed-upon guiding principles can help to adapt to new circumstances as they arise.

Across Asia, between and within diverse jurisdictions, there are innumerable localities experimenting with concrete, specific approaches to addressing social challenges, from alleviating absolute poverty with sustainable approaches, to enabling aging-in-place with dignity-enhancing technologies, to innovating for green growth by empowering communities. We need to learn from their successes and failures to build a more just and thriving world, as well as to build the self-respect and mutual respect to collaborate in addressing global threats like climate change and pandemics.

A. Recommendations for the Private Sector and Civil Society

Private sector organizations and civil society should embrace—as part of their organizational missions, as complementary to environmental, social, and governance goals, and as measures of shareholder or stakeholder value—the opportunities to work with government agencies. They should provide constructive feedback and information that will promote innovation for health and social protection, leveraging lessons learned during the pandemic to promote evidence-based improvement in processes and pathways for social innovations.

All stakeholders need to focus on results and social value, while questioning stereotypes about the advantages of different ownership forms of service providers. It is not the case that we generally mistrust private companies with matters of life and death. We take and drive all forms of transport—from buses, trains, cars, to airplanes—manufactured by private for-profit companies. Their dedication to safe operation is no less important than that of devices used in surgery and medical care. Ideological views about ownership form may have a basis in empirical evidence and still be a stereotype applied without analytic rigor, leading to lost opportunities and underperformance. Ideological commitment to “X ownership form the best” without reference to data and ignoring heterogeneity among X, is analogous to “statistical discrimination” (often applied to racial or other stereotypes): acting as if some summary statistics represent the individuals or organizations in the same category rather than taking each individual or organization on their own terms. For example, an assumption that government hospitals are of higher quality than private for-profit ones (a not inaccurate average assessment in the PRC, especially if not adjusting for size and specialty) ignores intraform variation, as some private providers may be better, and others worse, than the average government provider. Moving beyond stereotypes to engage the private sector is crucial, recognizing that the average performance of any form can and should be improved over time with better incentives, accountability, and stewardship. And not all heterogeneity is bad; there may be an element of tailoring to local conditions or specific services.¹⁴

¹⁴ Further conceptual and empirical work in Eggleston (2022) shows that the primary three ownership forms—government, private for-profit, and private nonprofit—while informative, nevertheless remain too narrow to encompass the whole spectrum; there are many hybrid forms in practice, partly generated by variation in regulatory scope or enforcement (e.g., nonprofits as “for-profits in disguise”) and by idiosyncratic factors of leadership (e.g., extent to which the leadership’s operational decisions embrace shareholder value beyond profits; see discussion in Hart and Zingales 2017).

While this report is not intended to recommend one single approach as a “magic pill,” it is also important to acknowledge the accumulation of experience and knowledge of what works in longer-term relational contracting, especially when a government agency is a party to the transaction. To this end, the private sector and civil society organizations should support the recommendations presented below as to what governments and international organizations should consider in setting up and evaluating collaborations with guiding principles, examples of which have been mentioned throughout the analyses above.¹⁵

B. Recommendations to Governments in Low- and Middle-Income Countries

Governments at both local and central levels should embrace an evidence-based approach to building a resilient, pluralistic health and social protection system. One key is linking governance to accountability and innovation over time. Resilience involves pragmatism and bravery: not being afraid to know the truth (e.g., about whether a public program works and to what extent), even if it seems counter-intuitive or ideologically unsettling for those who assume they already know what they will find. Part of the preparation and planning process should involve allocating a small share of the budget to co-generation of knowledge and evaluation, either with an embedded randomized control trial where feasible or collecting data to estimate the marginal value of public funds or the net value of the intervention or investment. Putting in place a “growth mentality” for developing an evidence base is critical for building truly resilient pluralistic health systems.

Governments at central and local levels should encourage their providers, civil society, and firms to work collaboratively with multilateral efforts to strengthen health systems, from strengthening processes for fast-track health technology assessment, to leveraging professional associations to support new work practices, to responding appropriately to new virus variants and changing public health conditions. Empirical research on supporting patients with chronic disease during the pandemic in multiple Asian health systems (Singh, Kondal, et al. 2021) points to the potential effectiveness of a three-pronged approach to design resilient health care systems during and after the COVID-19 pandemic:

- (i) develop and implement digital campaigns to disseminate information on how to adopt healthy behaviors, better self-manage chronic diseases, and control COVID-19;
- (ii) decentralize health care delivery for people with chronic conditions by involving trained community health workers and using technology-assisted medical interventions along with home monitoring devices for blood pressure and blood glucose monitoring to improve health care services; and
- (iii) provide effective social and economic support for people with chronic conditions, particularly rural communities, elderly, and those with severe mental health problems.

Greater investment in prevention efforts and strengthening primary care can help save future health care costs, reduce the burden of chronic diseases, and enhance resilience against future pandemics.¹⁶

Local and central governments should also encourage public-private collaborative governance and private sector engagement in health care and elder care to the extent appropriate to their health systems (Box 4). Officials should search for and apply evidence of productive cross-sector collaborations in other LMICs (not just the high-income world, which has its own context and limitations). For example, the Uganda Healthcare Federation is an umbrella body that brings together all the private sector actors to harmonize service delivery, regulate the operations, and promote good governance and accountability in the health sector. Examples of fruitful working relationships, tailored to a country’s own context, can help to move the dialogue toward productive public-private cooperation.

¹⁵ Consider leveraging the case studies housed at the “Vested way” website at www.vestedway.com, including for example the case study by Vitasek, Jeanne, and Keith (2017).

¹⁶ These recommendations are based on Singh, Kondal, et al. (2021).

C. Recommendations to ADB

ADB should consider setting up and evaluating constituent country experiences with public–private collaborations that feature relational contracts with guiding principles. Examples of such collaborations have been mentioned throughout the analyses above, especially the Canadian case of a purchasing agency and private providers of hospitalist services (footnote 15). ADB can curate a knowledge hub and information dissemination that (i) solicits and collates cases of collaborative governance; (ii) commissions independent evaluations of selected collaborations to document the factors contributing to both failures and successes; (iii) encourages ongoing learning opportunities for government officials distilling the key lessons from case studies in the region and elsewhere; and (iv) fosters internships for graduate students of regional universities to learn from policy makers while assisting ADB and policy makers update the case library, and perform scoping reviews of new dimensions of public–private collaboration in the region by topic. Such internships can develop local human capital capable of providing the kinds of evidence policy makers need to guide effective policy innovations, while also serving as a source of “fresh eyes” supporting ADB work and pipeline for recruiting talent from top universities in the region.

More generally, it is in the interest of all stakeholders to have strong, resilient health care systems in LMICs, including effective collaborative governance during crises. Constructive multilateral cooperation highlighting the importance of public–private collaboration can mitigate the impact of the current pandemic and strengthen the global capacity to avoid the devastating human costs and social and economic impacts of future outbreaks on the scale of COVID-19. Despite profound expertise, ADB and its multilateral funders and supporters might usefully embrace humility and willingness to learn. High-income countries and multilateral institutions should emphasize scientific, evidence-based health policy and regulation, while encouraging LMICs to do so as well.

ADB and other similar institutions can and should support LMIC policy efforts to define and regulate the private not-for-profit sector, often just at fledgling stages compared to the government and for-profit sector. Regional and multilateral collaborations can share experience about how to define and make accountable for “community benefits” in exchange for profit exemption, while not expecting nonprofits to automatically solve problems that have eluded solution by others or constitute a panacea for all social ills. Development banks have an important role of play in evaluating private sector-focused initiatives in high-income contexts and helping to invest in the distillation and translation of those experiences for the LMIC context.

ADB and other development organizations can develop and sponsor “social impact labs” (J-PAL and others) for multilateral-sponsored research on how to create evidence for effective collaborative governance. They can also encourage transparent peer review of research and international collaboration between scientists and health policy analysts; support LMIC students studying abroad, including but not exclusively in high-income countries; and encourage medical and public health students from high-income countries to study in and learn from the experiences of LMICs. Additional potentially fruitful actions include the following:

- (i) Share case studies of community and health system experiments with integrated care and foster patient-centered care, leveraging collaborative governance.
- (ii) Evaluate the effectiveness of different incentive and accountability frameworks (e.g., experience with bundled payment, managing selection with risk adjustment) supporting transparency and accountability across all ownership forms.
- (iii) Support LMIC efforts to develop more robust systems of malpractice regulation and accountability for quality care across all ownership forms of service providers.
- (iv) Encourage randomized controlled trials for new and old “technologies” alike, from robotic assistants for patients with dementia to efficacy of traditional medicines.
- (v) Work with partners in the Organisation for Economic Co-operation and Development in a multilateral approach to support LMIC health care ecosystem development.

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Evidence-Based Public–Private Collaboration in the Health Sector

The Potential for Collaborative Governance to Contribute to Economic Recovery from COVID-19 in Asia

Should central and local governments make available a range of health services, or should they buy care from non-state clinics and hospitals as well as from government-owned ones? This working paper expounds on collaborative governance or private engagement in public tasks based on terms of shared discretion. It focuses on how to leverage the vital synergies between market and control, and between the public and the private sectors, to build stronger and more resilient health systems.

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