# Bridging the digital health gap through private sector engagement

Private sector engagement could help unlock digital health benefits in resource-constrained healthcare systems, but its success will depend on strategies tailored to fit each country.

December 2025

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**Health systems globally** are under pressure, facing workforce shortages, rising costs, and uneven access. Low- and middle-income countries (LMICs) are particularly exposed due to a 44 percent decline since 2022 in health-related official development assistance, which is straining already limited budgets.

Digital health[1] solutions cannot solve every problem, but they can help address these challenges, enabling faster, more consistent care, especially for those living far away from hospitals or health centers. Scaling digital health solutions is one way to expand healthcare worker capacity and could reduce health system costs in LMICs by up to 15 percent, depending on the implementation and use cases.[2] Examples already show promise: In Tanzania, Afya-Tek is using AI to support 2,000 health workers providing healthcare services to 280,000 families, while Unity Health Toronto in Canada is working with Signal 1 to develop and scale an AI-based patient monitoring solution, CHARTWatch.[3] Most importantly, digital health solutions may help save lives: The World Health Organization (WHO) estimates that each additional $0.24 per patient per year invested in digital health could save more than two million lives from chronic diseases.[4]

However, digital health adoption remains limited. Many health systems lack the infrastructure, capabilities, and financing to sustain digital health at scale.[5] Private sector engagement can play an important role in advancing digital health (for more on the definition of private sector, see sidebar "Terminology"). Among LMICs, engaging the private sector is essential, as they are

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[1]  For the purposes of this report, digital health refers to the field of knowledge and practice associated with the development and use of digital technologies to improve health.

[2]  "How digital tools could boost efficiency in African health systems," McKinsey, March 10, 2023. Based on country case studies in Africa.

[3]  In 2022, Unity Health Toronto signed a Master Collaboration Agreement to transfer intellectual property for AI solutions developed by Unity Health's Data Science and Advanced Analytics team in exchange for a 5 percent equity stake in Signal 1. A further 13 percent equity stake will vest over five years. See *Financial statements of Unity Health Toronto*, Unity Health Toronto, March 31, 2024.

[4]  "Boosting digital health can help prevent millions of deaths from noncommunicable diseases," WHO, September 23, 2024.

[5]  WHO estimated in 2022 that for LMICs, $12.5 billion was needed over the next five years to support health systems transformations and likely more to meet global needs. See *Closing the digital divide: More and better funding for the digital transformation of health*, Transform Health, 2022.

# Terminology

**The full, comprehensive definition** of the private sector may include *innovators* (that is, creators of new digital health solutions), *developers* (that is, builders, manufacturers, and distributors of digital health products and solutions), *knowledge providers* (that is, organizations that provide expertise regarding digital health solutions), *implementing partners* (that is, organizations that carry out a specific part of a digital health solution), *funders*[1] (that is, organizations that fund the development,

implementation, or operation of digital health solutions), and *users* (that is, private health providers, private payors and administrators, academic centers, and individual consumers). However, this research report will focus on for-profit and not-for-profit *innovators, developers, and knowledge providers*. These are organizations that own, build, or have technical expertise in digital health hardware, software solutions, and data.[2]

For the purposes of this report, *ownership* can refer to full rights and control

over implementation of the solution, use, customization, and maintenance responsibilities. Ownership does not necessarily extend to solution intellectual property.

For the purposes of this report, *oversight* can refer to the responsibility to ensure that policies and procedures are properly followed, risks are managed, and decisions align with project goals and standards.

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[1]  Joint Learning Network work product private sector definition: "For-profit and not-for-profit private companies that provide hardware, software, brainware, and/or other digital solutions for the healthcare sector. Medical/pharma service providers will be excluded from the scope of this knowledge product as suggested by the country authors."

[2]  Private users' engagement with digital health was considered out of scope for this research.

often responsible for 40 to 60 percent of healthcare spending.[6] Globally, private sector actors can often offer solutions that patients and caregivers feel immediately, such as extra capacity, sharper logistics, and user-focused innovations, all of which complement the public sector's scale and trust. They are also a source of financing, with global private sector investment in digital health reaching $25.1 billion in 2024, growing 5.5 percent annually.[7]

This McKinsey Health Institute (MHI) report, produced under the Digital Health Exemplars (DHE) project within the broader Exemplars in Global Health program, offers leaders a design framework to better structure public–private collaborations to realize digital health's potential (for additional details or more on the consortium, see sidebar "About this report"). The report derives lessons from more than 20 case studies in five countries: Canada, Estonia, Mexico, Tanzania, and Togo (Exhibit 1). Through desk research, collaboration partner input, and more than 50 expert interviews, MHI distills lessons on how to design, finance, and sustain digital health partnerships with a focus on private innovation and solution providers engaging with the public sector (for more on research design, see sidebar "Methodology"). The report is divided into three sections: the digital health ecosystem, a design framework for private sector engagement, and lessons learned across countries.

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[6] "Engaging the private sector for universal health coverage and health security," WHO, May 12, 2023. This compares with approximately 30 percent spending for OECD countries. See WHO's Global Health Expenditure for country-specific data.
[7] "AI and TechBio Funding Lead the Charge: 2024 Digital Health Funding Resurgence," Galen Growth, February 12, 2025.

## About this report

**Preliminary findings** from this report, along with other private sector engagement research, were previously shared in the May 2025 Research Roundup by the Center for Global Digital Health Innovation at the Johns Hopkins Bloomberg School of Public Health. For additional research into private sector activity in digital health, see studies from the United Nations, the World Economic Forum, the National Institutes of Health, and others.[1]

This report is part of the Digital Health Exemplars (DHE) project within the Exemplars in Global Health (EGH) program. The DHE project aims to generate practical insights on how exemplary countries used digital health technologies to improve primary health care systems and contribute to better health outcomes. The DHE project takes a threefold approach, with workstreams to develop case studies on exemplar countries, conduct deep dives into digital health transformation themes, and support peer-to-peer learning to translate evidence into practice. Partner institutions include the Center for Global Digital Health Innovation at the Johns Hopkins Bloomberg School of Public Health; the Center for Digital 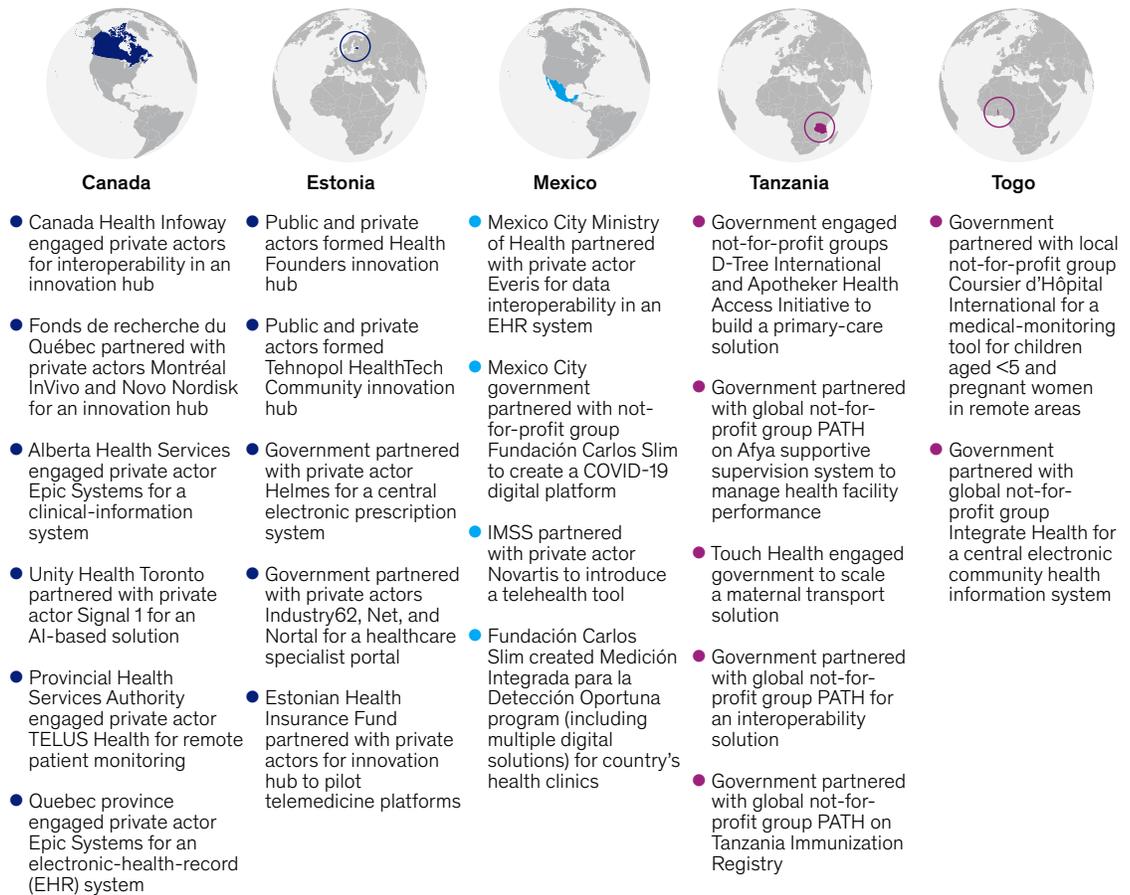Health and Implementation Science of the University of Gondar; the Indian Institute of Health Management Research; Instituto de Estudos para Políticas de Saúde in Brazil; the University of Ghana; and Africa Quantitative Sciences in Rwanda, which are leading the exemplar country case studies; McKinsey Health Institute, which is leading the preparation of select thematic deep-dive analyses; and the World Bank Group, which is facilitating the peer-to-peer learning effort via the Joint Learning Network's Digital Health Collaborative. The EGH program is part of the Gates Foundation's Global Development Division.

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[1] Sheng Wu, "Innovative digital public-private partnerships from pandemic response to resilient recovery," United Nations Department of Economic and Social Affairs, May 2023; Pamela D. A. Reeve and Shobana Kamineni, "Public-private partnerships can improve rural healthcare in the digital age," World Economic Forum, May 24, 2022; Krishnan Ganapathy et al., "Digital health care in public-private partnership mode," *Telemedicine Journal and e-Health*, December 2021, Volume 27, Number 12.

Exhibit 1

## This report derives lessons from more than 20 studies of private sector engagement in digital health across five countries.

**Engagement studies, by country**   ● High income   ● Upper-middle income   ● Lower-middle income

**Canada**

- Canada Health Infoway engaged private actors for interoperability in an innovation hub
- Fonds de recherche du Québec partnered with private actors Montréal InVivo and Novo Nordisk for an innovation hub
- Alberta Health Services engaged private actor Epic Systems for a clinical-information system
- Unity Health Toronto partnered with private actor Signal 1 for an AI-based solution
- Provincial Health Services Authority engaged private actor TELUS Health for remote patient monitoring
- Quebec province engaged private actor Epic Systems for an electronic-health-record (EHR) system

**Estonia**

- Public and private actors formed Health Founders innovation hub
- Public and private actors formed Tehnopol HealthTech Community innovation hub
- Government partnered with private actor Helmes for a central electronic prescription system
- Government partnered with private actors Industry62, Net, and Nortal for a healthcare specialist portal
- Estonian Health Insurance Fund partnered with private actors for innovation hub to pilot telemedicine platforms

**Mexico**

- Mexico City Ministry of Health partnered with private actor Everis for data interoperability in an EHR system
- Mexico City government partnered with not-for-profit group Fundación Carlos Slim to create a COVID-19 digital platform
- IMSS partnered with private actor Novartis to introduce a telehealth tool
- Fundación Carlos Slim created Medición Integrada para la Detección Oportuna program (including multiple digital solutions) for country's health clinics

**Tanzania**

- Government engaged not-for-profit groups D-Tree International and Apotheker Health Access Initiative to build a primary-care solution
- Government partnered with global not-for-profit group PATH on Afya supportive supervision system to manage health facility performance
- Touch Health engaged government to scale a maternal transport solution
- Government partnered with global not-for-profit group PATH for an interoperability solution
- Government partnered with global not-for-profit group PATH on Tanzania Immunization Registry

**Togo**

- Government partnered with local not-for-profit group Coursier d'Hôpital International for a medical-monitoring tool for children aged <5 and pregnant women in remote areas
- Government partnered with global not-for-profit group Integrate Health for a central electronic community health information system

Note: Use case examples may have involved additional partners; exhibit calls out only a subset.

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## Methodology

**This study seeks to analyze** design choices adopted to engage the private sector in advancing digital health solutions and then distill those choices into lessons. Six design dimensions were identified to answer the "why," "who," and "how" of private sector engagement. In this report, the private sector includes for- and not-for-profit organizations that own, build, or have technical expertise in hardware, software, and data—case studies focused on digital health solutions affecting healthcare delivery settings versus broader applications in a health system (for example, cybersecurity, regulatory).

However, the report does contain some findings from health systems more broadly. All observations were gathered through desk research, collaboration partner input, and more than 50 expert interviews, primarily from focus countries.
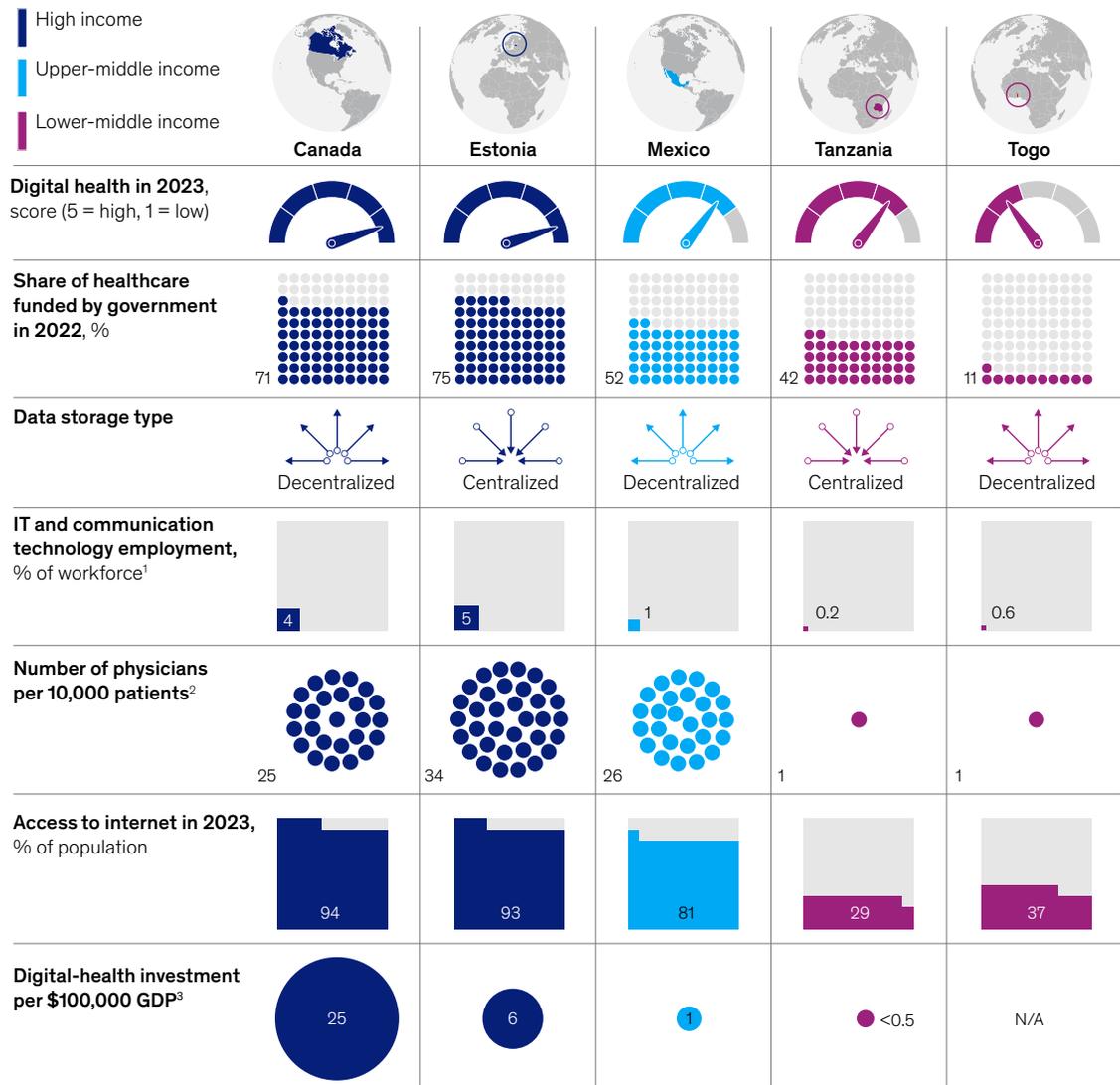
## Digital health ecosystem

Context affects the level of private sector activity in each country and how governments and the private sector partner in digital health. To illustrate this point, MHI compared the contexts and private sector activity across the five focus countries. Exhibit 2 shows this analysis.

Exhibit 2

### Healthcare and digital health ecosystems, workforce capacity, and infrastructure may all affect private sector investment in digital health.

**Healthcare and digital health funding, infrastructure, workforce, and investment, by country**

| | Canada | Estonia | Mexico | Tanzania | Togo |
|---|---|---|---|---|---|
| Income level | High income | High income | Upper-middle income | Lower-middle income | Lower-middle income |
| **Digital health in 2023**, score (5 = high, 1 = low) | | | | | |
| **Share of healthcare funded by government in 2022**, % | 71 | 75 | 52 | 42 | 11 |
| **Data storage type** | Decentralized | Centralized | Decentralized | Centralized | Decentralized |
| **IT and communication technology employment**, % of workforce[1] | 4 | 5 | 1 | 0.2 | 0.6 |
| **Number of physicians per 10,000 patients**[2] | 25 | 34 | 26 | 1 | 1 |
| **Access to internet in 2023**, % of population | 94 | 93 | 81 | 29 | 37 |
| **Digital-health investment per $100,000 GDP**[3] | 25 | 6 | 1 | <0.5 | N/A |

Note: Nonexhaustive.
[1]Uses latest available data: 2023 for Canada, Estonia, and Mexico; 2020 for Tanzania; and 2017 for Togo. [2]Uses latest available data: 2022 for Canada, Tanzania, and Togo; 2023 for Estonia; and 2021 for Mexico. [3]February 2025 snapshot; excludes investment in not-for-profit groups.
Source: Global Digital Health Monitor, accessed October 2025; Global Health Expenditure Database, World Bank, accessed October 2025; Household Integrated Economic Surveys and Labor Force Surveys, International Labour Organization (ILO), accessed October 2025; ILO; Living Standards Measurement Study, World Bank, accessed October 2025; PitchBook; UNFPA; World Bank

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As expected from the analysis, workforce and capacity, physical and digital infrastructure, and digital health ecosystem are all associated with different private sector investments.[8] Canada and Estonia had more mature digital health ecosystems and greater access to digital talent, which were all associated with more private sector investment in digital health.[9] Mexico, Tanzania, and Togo all had comparatively less mature digital health ecosystems and a lower share of information and communications technology (ICT) workers, which was associated with lower investment in digital health from the private sector. Notably, MHI also found that these factors associated with several aspects of public—private collaborations.

All countries, except Togo, preferred public ownership of health information exchanges (HIEs) and electronic health records (EHRs). Countries with higher digital health maturity often had public ownership of e-prescribing and telehealth systems, whereas lower maturity countries had more varied ownership of these systems. In Canada and Estonia, which have mostly public systems, the public sector has tended to be more involved in building digital health infrastructure. In contrast, in Mexico, Tanzania, and Togo, which have more mixed health systems, the responsibility for developing digital health systems was often mixed or led by the private sector.

In more mature ecosystems, case studies tended to rely on global (for example, Epic in Alberta, Canada) and local for-profit organizations (for example, Helmes in Estonia) to build and implement solutions. Emergent digital health ecosystems featured more diverse private sector actors, including foundations and funders, and global and local not-for-profit organizations, reflecting the need for the capabilities and financing of more mission-driven organizations. All case studies involved similar public sector actors, including a mix of national or federal and local governments, multinational organizations, and government-funded entities.

## Design framework for private sector engagement in digital health

Throughout this analysis, we considered how leaders structure private sector partnerships across six design dimensions. The design dimensions framework, introduced in Exhibit 3, answers the "why, who, what, and how" of any public—private collaboration. It can help public sector actors ensure they are making design choices that reflect their context and goals. Exhibit 3 also illustrates the design dimensions and their respective applications. The rest of the section highlights observations of design choices across case studies.
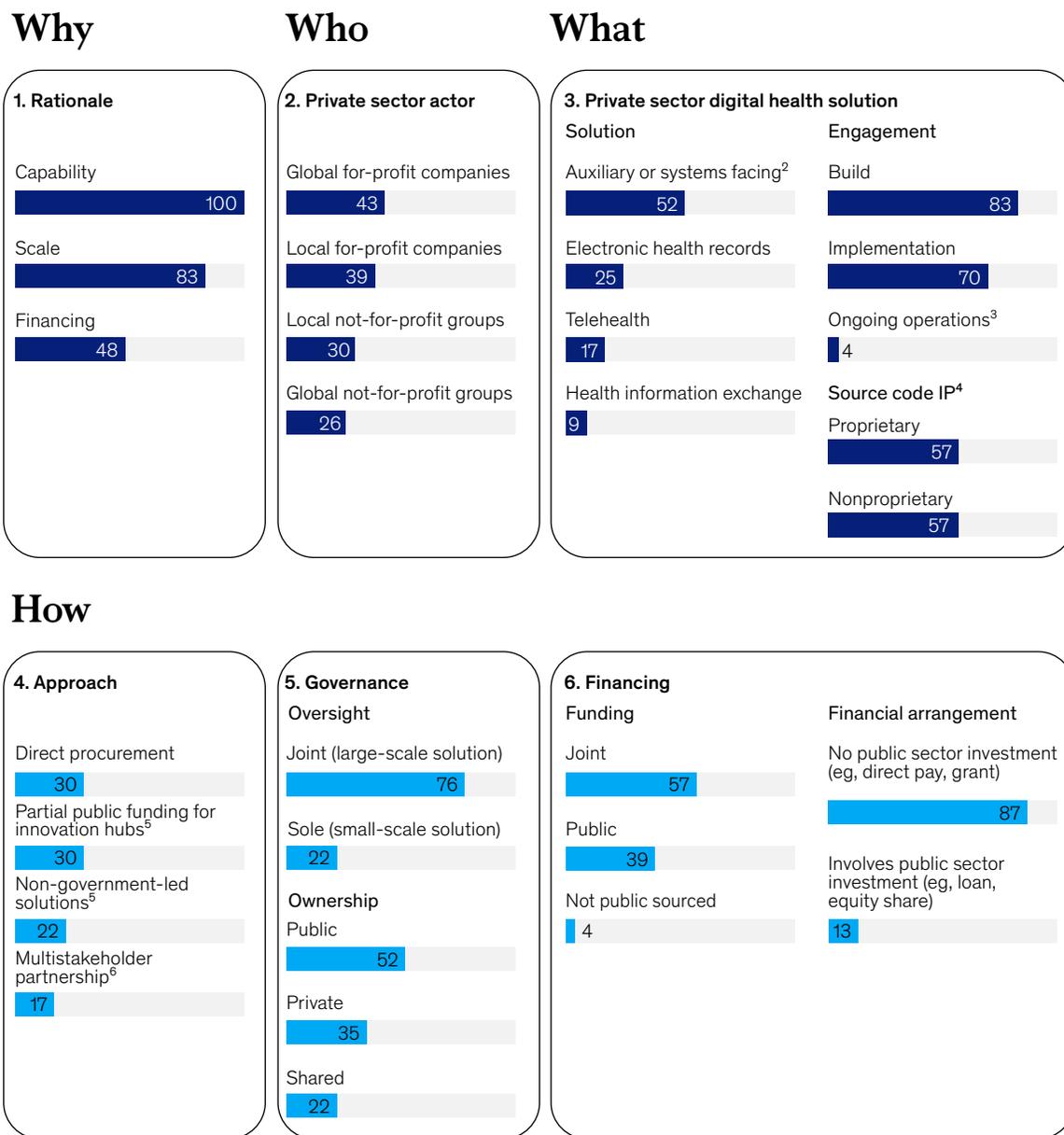
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[8] Based on 2024 World Bank data, including population density, fixed broadband subscriptions per 100 people, percentage of the population with access to electricity, and percentage of the population using the internet.
[9] Digital talent is measured here as a percentage of labor force in information and communication technology (ICT) roles.

Exhibit 3

## The design framework for public sector organizations involves six design dimensions of private sector engagement.

**Public sector organizations' design framework, by dimension,** % of use cases in each dimension[1]

# Why

### 1. Rationale

Capability
100

Scale
83

Financing
48

# Who

### 2. Private sector actor

Global for-profit companies
43

Local for-profit companies
39

Local not-for-profit groups
30

Global not-for-profit groups
26

# What

### 3. Private sector digital health solution

| Solution | Engagement |
|---|---|

Auxiliary or systems facing[2]
52

Build
83

Electronic health records
25

Implementation
70

Telehealth
17

Ongoing operations[3]
4

Health information exchange
9

Source code IP[4]

Proprietary
57

Nonproprietary
57

# How

### 4. Approach

Direct procurement
30

Partial public funding for innovation hubs[5]
30

Non-government-led solutions[5]
22

Multistakeholder partnership[6]
17

### 5. Governance

Oversight

Joint (large-scale solution)
76

Sole (small-scale solution)
22

Ownership

Public
52

Private
35

Shared
22

### 6. Financing

Funding

Joint
57

Public
39

Not public sourced
4

Financial arrangement

No public sector investment (eg, direct pay, grant)
87

Involves public sector investment (eg, loan, equity share)
13

[1]Figures do not sum to 100%, because of overlap in use cases. Nonexhaustive; represents aggregate view from limited use cases in focus countries.
[2]For the purposes of this report, "auxiliary" or "systems facing" solutions can refer to a technology, service, or software component designed primarily to interact with, support, or enhance health systems. These solutions exclude HIE, EHR, and tele-health platforms. They include tools such as e-prescribing systems and a range of digital solutions to support specific priorities (for example, maternal transport programs and management of chronic illnesses).
[3]For the purposes of this report, the term "ongoing operations" refers to operations post implementation that goes beyond standard upgrade/maintenance, such as ongoing or continuous support of organizational capabilities, processes, resources, and execution activities required to run and sustain a digital health solution.
[4]Intellectual property.
[5]Often memorandums of understanding.
[6]Often consortium contracts.
Source: *DIGITAL-IN-HEALTH: Unlocking the value for everyone,* World Bank, August 19, 2023; Hojun Lee and Kiwan Kim, *Traditional procurement versus public–private partnership: A comparison of procurement modalities focusing on bundling contract effects,* Asian Development Bank working paper, number 560, September 2018; Marianne El-Khoury, Bettina Brunner, and Sean Callahan, "Accelerating private sector engagement: Public-private engagement, SHOPS Plus, December 2020; "Private sector landscape in mixed health system," WHO, December 7, 2020; "Concessions and PPPs," Organisation for Economic Co-operation and Development, September 25, 2015

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**Why: All case studies included multiple rationales for engaging the private sector**

The public sector consistently engaged the private sector for *capabilities* (100 percent of case studies), such as unique technical skills. Additional reasons were the ability to *scale* (83 percent) in more mature ecosystems or to support *financing* (48 percent) in budget-constrained settings.

**Who: Choosing the private sector actor**

When selecting the private sector player, budget-constrained countries often collaborated with mission-driven *not-for-profits* (for example, the Togolese government partnered with Integrate Health), which are more likely to offer lower-cost services or financing where commercial actors may not. Less-constrained countries engaged *local for-profit organizations* for innovation (for example, innovation hubs such as Health Founders in Estonia or MaRS Discovery District in Toronto) and *global for-profits* for at-scale solutions. Countries also deployed blended solutions when partners played multiple roles (for example, the Fonds de recherche du Quebec partnered with both a local not-for-profit, Montreal InVivo, and a global for-profit, Novo Nordisk).[10]

**What: Types of solutions**

The types of solutions that focus countries engaged the private sector for were often *blended solutions and products* (for example, the DokitaEyes platform in Togo incorporates health records and telehealth).[11] More than half of the case studies included auxiliary or *systems-facing solutions* (52 percent), such as facility management (for example, AfyaSS in Tanzania) or e-prescription systems (for example, Estonia). *Electronic health record solutions* and *telehealth solutions* were also common (25 and 17 percent, respectively).

**How: Engagement with the private sector**

The typical engagement with the private sector focused on *building* (83 percent) and *implementing* (70 percent) solutions. Relatively few engagements had the private sector to *support* ongoing operations solutions post-implementation beyond standard upgrades or servicing. An example exception is that the Carlos Slim Foundation and the Mexican government jointly operated the COVID360 platform after its development and implementation. Public sector actors preferred to operate solutions when directly integrating into healthcare systems or training government staff.

Proprietary and open-source code were used in similar proportions. For-profits tended to prefer proprietary code for commercial use. Countries such as Estonia promoted the use of nonproprietary code to support integration with other systems.[12]

The case studies had several common *approaches to private sector engagement*. Exhibit 4 outlines four common approaches that emerged from more than 20 case studies.

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[10]  *Règles générales comunes*, Fonds de recherche du Québec. 2024.
[11]  In rural areas, the DokitaEyes platform is used within the Innovation for Maternal and Child Health in Togo (ISME-Togo) project, implemented by the Togolese Ministry of Health with support from a French FSPI fund. DokitaEyes connects pregnant women and children under age 5 at three levels of health information.
[12]  Expert interviews with health technology companies, governmental institutions, and not-for-profit organizations.

Exhibit 4

## Four common private sector engagement approaches emerged from more than 20 case studies.

Private sector engagement approaches  →  Primary pathway[1]  ----▶ Secondary pathway[1]  →  Funding
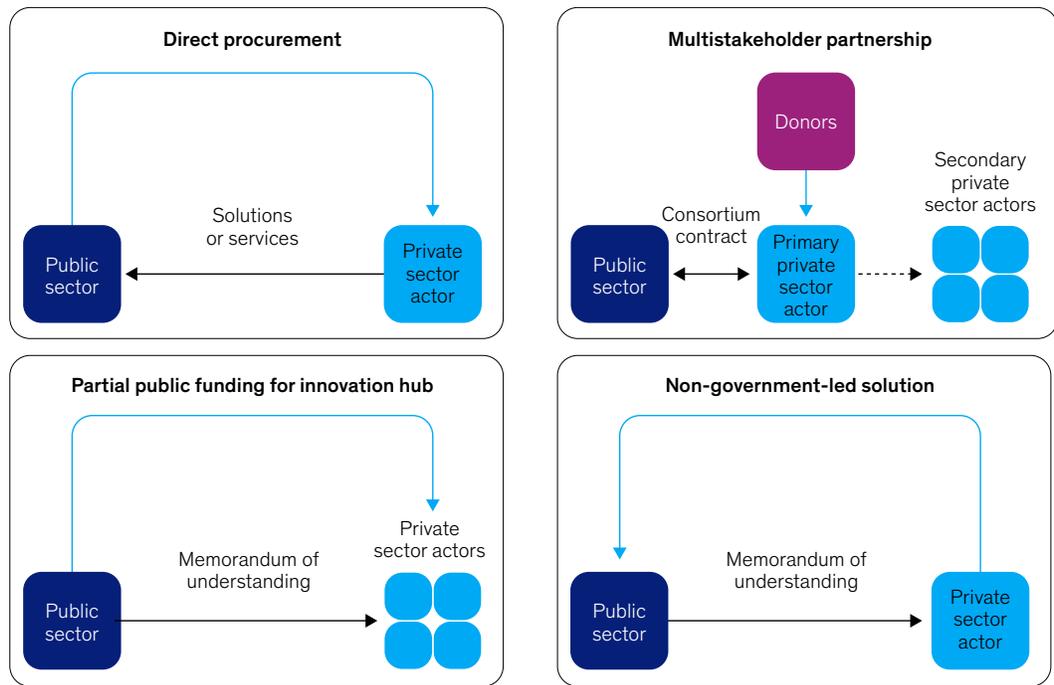


Note: Nonexhaustive; represents views from limited use cases in focus countries.
[1]Primary and secondary pathways show direction in which engagement is generally initiated; some variation in pathway exists for individual use cases, and models vary.

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— *Direct procurement,* in which the public sector pays directly for digital health capabilities, was common in large-scale digital health solutions.[13]

— *Multistakeholder partnerships* were often deployed in complex stakeholder or regulatory environments and emerging ecosystems, such as those in Tanzania and Togo.[14] These partnerships often employ *consortium contracts*, in which the public sector partners with a not-for-profit and sometimes foundations to coordinate stakeholders.

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[13] "Alberta expands Epic EHR across the province," Canadian Healthcare Technology, November 6, 2024; "TELUS Home Health Monitoring," Provincial Health Services Authority, accessed October 2025; "31 hospitals in the federal district network to be digitally connected," E-Health Reporter, April 29, 2014.

[14] In some countries, regulations require governments to engage with a set number or type of private sector actor. Expert interviews with health technology companies, governmental institutions, and not-for-profit organizations.

— *Partially public-funded innovation hubs* provide grants and resources to digital health developers.[15] They often promote digital health innovation in a specific area, such as chronic diseases, and were observed in multiple countries (Canada, Estonia, and Togo) with different levels of digital health maturity.[16] Innovation hub leaders may use memoranda of understanding (MoUs) to engage with hub participants.[17]

— *Nongovernmental-driven solutions* are private sector–initiated partnerships with the government designed to find and implement digital solutions. This pathway also often employs MoUs and is common in contexts with strong, local private sector actors (including established not-for-profits) and in emerging ecosystems, such as Mexico and Tanzania.[18]

**How: Solution governance**

Solution governance depends on scale and integration. Small-scale, less complex solutions often involved *sole oversight*. For example, Canada Health Infoway maintains full oversight of its Vendor Innovation program, which ensured alignment of solutions to the Shared Pan-Canadian Interoperability Roadmap. By contrast, larger-scale implementation tended to involve *joint oversight* (78 percent of case studies) between actors in the public and private sectors to spread accountability across more actors.[19] Governments may favor *sole public ownership* (52 percent) when directly integrating solutions into public infrastructure.[20] For instance, Estonia's public sector retained ownership of the customized EHR platform that was built by three private companies. *Shared or private ownership* was common when the private sector played a larger role in the post-implementation process.

**How: Financing partnerships**

To finance partnerships, most case studies used *joint funding* (57 percent), in which the public and private sectors shared some costs. Mature digital health ecosystems may rely on *direct public funding*, supported by tax revenues and health insurance systems, as seen in Canada, where Infoway directly funds local digital health companies with demonstrated impact to scale their solutions. Countries with nascent ecosystems were more likely to *require donor assistance* or *private sector financing*. For instance, in Mexico, Novartis, a global for-profit company, funded the development of a telehealth and prescription platform, which allowed patients to access care and medication more quickly. Most case studies used *direct payments or grants*, but in some models in Canada and Estonia, the public sector structured its contribution as an *equity stake* to create a longer-term partnership with aligned incentives.[21]

## Lessons learned

Governments that engaged the private sector overcame five common challenges: not knowing where to invest, challenges in finding the right capabilities, overcoming financial uncertainty, historic mistrust of the private sector in healthcare, and uncertain long-term sustainability. These challenges include common market failings observed across countries and beyond digital health, as well as concerns related to data privacy, cost sustainability, and equitable access. Below, MHI distills these challenges and the spectrum of solutions used to address them into five lessons.

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[15] Expert interviews with health technology companies, governmental institutions, and not-for-profit organizations.

[16] "Program for solutions to childhood obesity," Quebec Research Fund, accessed October 2025; "AI at Unity Health," Unity Health Toronto, October 31, 2025; "HealthTech Community," Tehnopol, accessed October 2025; "Togo: State-owned incubator Nunya Lab launches program to support MSMEs," Togo First, February 8, 2024.

[17] MoUs serve as an initial, less-binding agreement and signify collaboration. They can be signed as part of long-term collaborations between governments and non-profits, for instance, to partner on multiple collaborations.

[18] Roberto Tapia-Conyer et al., "CASALUD: an innovative health-care system to control and prevent non-communicable diseases in Mexico," *Perspectives in Public Health*, November 2013, Volume 135, Number 4; "M-mama achieves national scale-up in Tanzania," Touch Health, October 19, 2023.

[19] "Alberta expands Epic EHR across the province," Canadian Healthcare Technology, November 6, 2024; "TELUS Home Health Monitoring," Provincial Health Services Authority, accessed October 2025; "31 hospitals in the federal district network to be digitally connected," E-Health Reporter, April 29, 2014.

[20] Karin Kõnd and Anett Lilleväli, *E-prescription success in Estonia: The journey from paper to pharmacogenomics*, European Observatory on Health Systems & Policies, June 20, 2020.

[21] Expert interviews with health technology companies, governmental institutions, and not-for-profit organizations.

### 1. Guiding stakeholders on where to invest or build solutions

Private sector actors often lack clarity on where to invest in digital health. The public sector can guide them. Across our five focus countries, MHI observed a spectrum of approaches that signal to private sector actors where to invest and how to integrate solutions into existing infrastructure. Countries such as Tanzania have developed a *national digital health road map* outlining the capabilities, scale, and finance required from the private sector to guide investment toward national priorities. Other countries, such as Estonia, have established c*ommon standards of interoperability* aligned across government and private actors, allowing investments to build on existing infrastructure and drive greater impact. Governments sometimes provided guidance down to the use case. In Canada, Infoway's Vendor Innovation Program focused on projects designed to address key bottlenecks in health data exchange, care coordination, and improved patient outcomes.

### 2. Effectively engaging private sector actors

The public sector may be seeking guidance for how and where to apply private sector capabilities. Effective engagement with trusted actors can build awareness, improve solution quality, and streamline operations.[22] For example, the Carlos Slim Foundation partnered with the Mexican government to scale MIDO, a mobile health program designed to improve treatment for chronic diseases in more rural areas, across the entire country. The government engaged the foundation for their preexisting proven solution and technical capabilities, while the foundation benefited from the public sector's reach. MIDO rolled out nationally in 2012. It has reached approximately 3 million patients and reduced stockouts in clinics that implemented the platform by as much as 15 percent.[23] *Establishing transparent procurement processes* and *centralized technology-enabled platforms* can further improve engagement with the private sector, streamline operations, and maintain high standards of performance. The CAN Health Network in Canada, for instance, operates a coordinated vendor platform to streamline procurement (as does the Provincial Health Services Authority in British Columbia).

### 3. Offering an ecosystem of incentives to boost private sector engagement

Financial uncertainty often discourages private sector participation in new markets and segments. A full ecosystem of incentives and even new mechanisms can boost private sector participation in resource-constrained conditions. A broad range of tools, such as tax breaks and grants, can be used to attract private sector investment.

For example, Togo introduced an innovation tax framework in 2023, providing incentives for start-ups that invest in private infrastructure and healthcare to direct innovation toward national health priorities.[24] The analysis also found that the public sector used new tools such as *innovation hubs* to rapidly develop new technologies and improve global competitiveness. The publicly funded Health Founders Estonia innovation hub bridges critical capability gaps that early-stage start-ups often face by providing dedicated mentorship, technical and regulatory support, a structured development program, community hubs, and living labs for product testing. While companies retain ownership, Health Founders connects them with investors and may take small equity stakes in international ventures to align incentives and support scaling. Countries can further *improve the private sector's ability to safely access data*, as seen in Finland, to encourage research and support the development of their innovation ecosystem.[25]

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[22] Trusted actors include organizations with a track record of successful government collaborations and those considered respected and trusted in the communities in which the partnership would operate. For example, foundations or implementing partners who frequently work with public sector actors.

[23] Mark McClellan and Roberto Tapia-Conyer, *Preventing chronic disease through innovative primary care models*, Brookings Institution, April 7, 2015; information sourced from expert interviews and documents shared by the Carlos Slim Foundation.

[24] "Togo: Government wants to help increase the number of local tech startups," Togo First, January 16, 2023.

[25] "Anonymisation and anonymity of image and signal data in processing under the Act on the Secondary Use of Health and Social Data," Finland Ministry of Social Affairs and Health, March 28, 2024.

## 4. Establishing data privacy guardrails

Historic mistrust and concerns over data privacy violations and data breaches can hinder collaboration. Data privacy regulations can derisk private sector activity for all stakeholders.

Enforcing balanced data privacy regulations and requiring oversight for accessing sensitive data may build trust among the public sector and patients over time and mitigate operational and reputational risks from violations and breaches. For instance, the Estonian government enforces the General Data Protection Regulation and the Estonian Personal Data Protection Act for all private sector actors.[26] Enforcement and oversight give confidence to end users (for example, hospitals and patients) that their data is safeguarded and assure other private sector actors that they are operating on a level playing field. Countries often must consider how to find the right balance to support innovation and the safeguarding of information through regulations.

## 5. Providing for the sustainability of digital health solutions

Private sector actors may be reluctant to engage when a program's sustainability is uncertain. Planning long-term financing and ownership at the outset can build confidence for an investment.

Governments can accelerate progress toward national health priorities by *engaging nonpublic sector financing or funding partners* to pilot or scale health programs. For example, in Tanzania, the Vodafone Foundation, collaborating with the government and Touch Health, initially financed a national system for emergency transportation for women and newborns known as m-mama.[27] Touch Health built and scaled the solution and transitioned ownership to the Tanzanian government, which integrated m-mama into the country's ICT system.

Governments can also implement innovative financial structures, such as *deferred payments*, or take equity stakes in private digital health companies to sustain longer-term partnerships.[28] For instance, the Unity Health hospital system in Toronto licensed several of its technologies to Signal 1 and made a small equity investment in the company.[29] In exchange, Signal 1 is scaling those technologies and will use the Unity Health hospital system as a "living lab" to test future innovation. The collaboration has already launched and scaled CHARTWatch, an AI-based monitoring system designed to address patient needs.[30] To build public sector capabilities over time, governments have also established *phased ownership transition periods* (for example, m-mama in Tanzania) and *allowed real-world testing of digital health solutions*. In Canada, solutions developed through the Unity Health Toronto and Signal 1 partnership can be tested within Unity's hospital network.[31]

For a deeper exploration of approaches to overcome challenges, refer to the "Lessons and examples" table.

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[26] "Data protection laws in Estonia," DLA Piper, January 16, 2025; Personal Data Protection Act, Riigi Teataja, December 12, 2018.

[27] "Emergency transportation for pregnant women and newborns," Touch Health, accessed October 2025.

[28] *Tanzania data use partnership: Afya supportive supervision system impact evaluation report*, PATH, September 2022.

[29] Unity Health Toronto has signed a collaboration agreement with Signal 1 under which intellectual property developed by Unity Health's Data Science and Advanced Analytics team for AI solutions is shared in exchange for an equity stake in Signal 1; *Financial statements of Unity Health Toronto*, Unity Health Toronto, March 31, 2024.

[30] "AI at Unity Health," Unity Health Toronto, October 31, 2025.

[31] Unity Health joins forces with Signal 1 to revolutionize healthcare by delivering AI solutions developed at St. Michael's to hospitals around the world," United Health Toronto, April 25, 2022.

Table

# Lessons and examples

| 1. Guiding stakeholders on where to invest | |
| --- | --- |
| **Lessons learned** | **Examples** |
| Developing a digital health solution road map can create a shared understanding of vision and technical requirements and clarify standards. | The Tanzanian government, in collaboration with PATH and with funding from the Bill & Melinda Gates Foundation, developed its Digital Health Investment Roadmap.[1] Under the guidance of this plan, the government engaged PATH to develop a Health Information Mediator platform to support health system interoperability.[2] |
| Defining solution ownership can improve alignment and administration. | In Canada, the Alberta Health Services (AHS) contracted Epic to jointly oversee the creation of an interoperable EHR system, Connect Care.[3] Since its completion in 2024, the AHS now fully owns and administers the system. |

| 2. Effectively engaging private sector actors | |
| --- | --- |
| **Lessons learned** | **Examples** |
| Partnering with trusted private sector actors (including not-for-profits and foundations) with specialized knowledge and resources may improve solution quality and adoption. | The Tanzanian government collaborated with D-tree and the Apotheker Health Access Initiative (AHAI) to develop and scale a digital primary care solution connecting community health workers, health facilities, and drug dispensing outlets. The solution, Afya-tek, helps address fragmentation and reliance on paper-based reporting in Tanzanian healthcare. The government chose digital health organization D-tree and AHAI for their pharmaceutical expertise, experience scaling digital health solutions, and access to funding.<br><br>During Mexico's COVID-19 response, the Government of Mexico City partnered with Carlos Slim Foundation (CSF) to establish a fully functional COVID360 platform to treat over 9000 COVID patients. The hospital platform was primarily funded by the foundation with a small portion funded by public actors.[4] |
| Establishing transparent procurement processes, inclusive of diverse suppliers, and including adequate technical evaluation criteria can streamline processes and improve solution quality. | The Estonian government offers transparent guidelines to ensure effective procurement, including detailed technical specifications in requests for proposals, leading to higher-quality outcomes.[5] |
| Implementing centralized, technology-powered platforms can streamline procurement processes. | The CAN Health Network in Canada has developed a network of providers and vendors to expedite procurement for vendors that have already implemented similar solutions with other network members. |

| 3. Full ecosystem of incentives to boost private sector engagement | |
| --- | --- |
| **Lessons learned** | **Examples** |
| Creating financial incentives (eg, tax breaks, grants) and using those to target specific capabilities can encourage investment in priority areas. | In January 2025, tax incentives were announced in Mexico to support private infrastructure and health investments in rural areas.[6] |
| Investing in innovation hubs can encourage targeted innovations and improve the global competitiveness of private sector solutions. | Health Founders in Estonia supports private commercialization efforts in international markets by providing resources on certifications and legal guidance. |

[1] *Tanzania digital health investment roadmap 2017-2023*, PATH and government of Tanzania, January 2017.
[2] "Developing digital solutions with the experts—end users," PATH, April 13, 2022.
[3] "Alberta expands Epic EHR across the province," Canadian Healthcare Technology, November 6, 2024.
[4] Roberto Tapia-Conyer et al., "Rapid establishment of a dedicated COVID-19 hospital in Mexico City during a public-health crisis," Hospital Practice, August 2022, Volume 50, Number 3.
[5] Gathered through expert interviews with Estonia Ministry of Social Affairs.
[6] Lilia Alvarez et al., "Mexico's president offers opportunities for local and foreign investors," Foley & Lardner LLP, January 28, 2025.

Table (continued)

| | |
|---|---|
| Centralizing and securing health data can encourage and facilitate research. | The Estonian government partnered with Helmes to develop the systems-facing e-Prescription solution, which has been integrated with the core infrastructure (ie, the national Estonian Education Information System) to centrally share and store digital prescription records.[7] |

### 4. Data privacy guardrails

| Lessons learned | Examples |
|---|---|
| Enforcing data privacy regulations may build trust among all stakeholders (including patients using services) and encourage collaboration. | Estonia enforces the General Data Protection Regulation[8] and the Estonian Personal Data Protection Act[9] (PDPA) for all entities, including digital health private sector actors participating in public procurement. |
| Incorporating oversight as a requirement for accessing sensitive, centralized data may provide incentives for compliance and build trust. | The Finnish Biobank Cooperative – FINBB requires private sector actors using biobank data to adhere to strict privacy and data usage agreements. |

### 5. Sustainability of digital health solutions

| Lessons learned | Examples |
|---|---|
| Accessing non–public sector financing can catalyze national health priorities. | In Togo, the Fonds de Solidarité pour les Projets Innovants funded the ISME-Togo project, which improves health access for pregnant women and children under the age of five. This work is critical in Togo, where maternal and newborn diseases have the third-largest gap for care and delivery efficiency in the country. |
| Implementing innovative financial structures (eg, deferred payment arrangements, equity stakes, fee-based models) may smooth cash flow and ensure accountability. | Canadian hospital Unity Health Toronto and Estonia's Tehnopol HealthTech Community have taken minor equity stakes in digital health for-profits, aligning interests and offering potential ROI.<br><br>The Mexican Institute of Social Security partnered with Novartis to build a consultation and prescription platform. Novartis financed the initiative under the arrangement that it received payment for medicines bought through the platform.[10] |
| Establishing phased ownership transition periods (eg, private to joint, joint to public) can enable knowledge transfer and build public capabilities. | In Tanzania, private actors such as Touch Health support the public sector technically and financially while gradually transferring solution ownership.[11]<br><br>The Togolese government and Integrate Health jointly oversaw the building of a community-based health information system, eventually transitioning ownership to the government post-deployment.[12] |
| Testing solutions in public health systems can build capabilities and improve technical sustainability. | Canadian innovation hubs (eg, Unity Health Toronto) enable digital health solution developers to test and scale their solutions within healthcare providers.[13] Developers improve their skills and ensure solutions work in real healthcare settings. |

[7] "E-prescription – Paperless prescriptions in Estonia's nationwide e-Health system," e-Estonia, accessed October 2025.
[8] "Data protection laws in Estonia," DLA Piper, January 16, 2025.
[9] Personal Data Protection Act, Riigi Teataja, December 12, 2018.
[10] "Novartis to promote clinical research in Mexico," Global Growth Markets, November 18, 2015.
[11] "Emergency transportation for pregnant women and newborns," Touch Health, accessed October 2025.
[12] Mouhamadou Bassirou Diouf, "How SanteComTogo is transforming community health: Insights from the field," Medic, October 15, 2024.
[13] Innovating digital health solutions," Ontario Centre of Innovation, accessed October 2025.

The daily challenges of health systems are familiar, from crowded waiting rooms and overworked nurses to paper records that cannot always match fast-moving outbreaks or meet demand. Digital health cannot solve every problem, but when integrated effectively with broader health system reforms, it can help reduce administrative burdens for healthcare professionals, making queues shorter, records more accurate, and healthcare more consistent, especially for those living farther away from hospitals or health centers.

The private sector offers solutions that patients and caregivers can often feel immediately: extra capacity, sharper last-mile logistics, and user-focused innovations. Faster product cycles, agile processes, and fresh capital ensure continuous improvement and adaptation, particularly to incorporate the latest advancements in AI-driven digital health technology. However, none of those benefits replaces public stewardship. Private sector engagement works best when the public sector creates conditions for trust, sustainability, and security for all parties.

This report provides a perspective for creating those conditions. It offers perspectives on why to partner and how, models that have worked in comparable settings, and tools—procurement paths, governance checklists, and outcome measures—to shape partnerships. This report shows there is not one single blueprint. What matters is starting from the realities of each health system and then shaping partnerships that are practical, trusted, and sustainable.

For additional digital health exemplars research, visit the Digital Health Research Roundup website for the Center for Global Digital Health Innovation at the Johns Hopkins Bloomberg School of Public Health. See here for more information on the Exemplars in Global Health's digital health research.

# Acknowledgments