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# Digital Square Capabilities

COVAX roll-out

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*Updated April 2022*

# Digital Square's unique role in supporting COVAX and country distribution

Digital Square serves health leaders by connecting them with resources necessary for digital transformation, including adaptable, reusable digital global goods that can be harnessed for vaccine readiness and deployment. Through existing partnerships with the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), and a host of donors in the digital health ecosystem, we are well-positioned to support digital readiness for COVAX introduction.

Specifically, Digital Square can offer:

- Rapid procurement supporting global goods
- Co-investment opportunities with our network of investors and partners
- Digital health technical expertise including interoperability of digital health solutions
- Responsiveness to country priorities through direct country engagement.

Digital Square has relationships with over 30 global good partners and supports deployment of global goods across more than 130 countries. Global goods are already active in 55 out of the 57 GAVI AMC countries, and 12 global goods have developed functionalities specifically for COVID-19 vaccine roll-out.

**Digital Square's broader COVID-19 capabilities across donor alignment and coordination, support for global goods and interoperability standards, and country support can be found [here](#).**

## Background

The Coalition for Epidemic Preparedness Innovations (CEPI), Gavi, and WHO launched the COVAX facility in April 2020 as a global solution to end the ongoing pandemic by facilitating equitable access to coronavirus vaccines. As of January 2022, the facility has shipped over [one billion doses to 144 countries](#), including 57 Gavi Advance Market Commitment (AMC) countries. However, as countries prepare for vaccination campaigns, there remains a lot to be done to ensure that health systems are truly ready to distribute, administer, and track vaccines for their populations.

WHO's Country Readiness Core Indicators (RCI) dashboard presents summaries of country-level data on several areas including national coordination for vaccine introduction, cold chain capacity, and health worker training—critical factors in rolling-out any new vaccine at scale. The 57 Gavi AMC countries have an average RCI score of 32.04/100, indicating a lack of preparedness in terms of safety, demand, and regulatory approvals needed for COVAX roll-out. In contrast, countries that are self-financing the vaccine have an average RCI score of 55.42/100.

To ensure equitable distribution of a vaccine, COVAX is applying lessons learned from routine vaccination programs and emergency vaccine introductions such as against polio: [build on](#)

[existing systems and rely on strong partnerships at all levels](#). WHO too, in its guidance on developing a national deployment and vaccination plan, highlights [the role of digital tools](#) in planning, deploying, and monitoring roll-out of a vaccine.

Effectively deploying digital tools can help countries deliver a vaccine quickly and efficiently, saving lives and substantially speeding up the end to the global disease outbreak. Digital tools and data from those systems can be used to help countries plan vaccine distribution, especially when a limited number of vaccine doses will be available and when a vaccine could be introduced in phases. Once a vaccine is ready for administration to recipients at health facilities, digital tools can aid in the management of individual recipients, support health worker training, and streamline efficiencies in the supply chain, reducing wastage of these essential commodities.

## Global goods and COVID-19 adaptations

Digital Square-supported global goods are designed to be affordable and effective in low-resource settings, offering features such as offline functionality and the incorporation of SMS data inputs. Several global goods have already developed modules to support COVAX introduction across use-cases. More information on these adaptations and supporting resources can be found on [Digital Square’s COVID-19 Adaptations Wiki](#) as well as in [this resource](#) created to map use-cases for the lifecycle of a vaccination campaign and beyond.

	Use-Case	Global Goods
Planning	Communication tools and applications for frontline health workers providing care and administering vaccines	CommCare, Community Health Toolkit, mHero, OpenSRP, SORMAS
	Community mobilization supporting demand generation and communication for vaccination campaigns	CommCare, DHIS2, SORMAS
	Patient and Health Worker Registries supporting prioritization of vaccine administration	Bahmni, DHIS2, OpenMRS
Delivery & Admin	Logistics Management Tools for Procurement, Delivery, Cold Chain Monitoring including to the last mile	DHIS2, OpenBoxes, OpenLMIS
	Remote Learning Tools for health workers supporting training and supervision	Community Health Toolkit

	Tracking and follow up reminders for patient and health worker administration of the vaccine	CommCare, DHIS2, iHRIS, ODK
Monitoring	Tracking tools to monitor quality of vaccine delivery and safety for potential adverse effects	CommCare, DHIS2, OpenSRP, SORMAS
	Digital Vaccine Certificates	CommCare, DHIS2, working with WHO on a Product Registry (Product Catalogue Management Tool) and Terminology Services (OCL)

Across these use-cases, global goods are aiding countries in successful COVAX roll-out. For example, DHIS2’s COVID-19 Vaccine Delivery Toolkit has been deployed in Sri Lanka, helping the Ministry of Health register clients for immunizations and manage vaccine stocks. SORMAS, which has developed and tested a vaccine module for polio vaccination campaigns in Afghanistan, is working with the Ministry of Health to generate demand among the population for coronavirus vaccine campaigns. For a full list of the digital health global goods, please download the [Global Goods Guidebook Version 2.0](#) that was released in March 2021.

Digital Square has mapped the existing functionality of approved global goods to all the COVID-19 use-cases, from contact tracing and surveillance to laboratory systems and interoperability tools, through a USAID-funded project called [Map and Match](#). Global goods grouped by those that have already been adapted to match a COVID-19 use-case and those that could be adapted to match a use-case are presented in this [document](#).

Additionally, Digital Square’s [Digital Applications and Tools Across an Epidemiological Curve \(DATEC\)](#) framework helps visualize these use-cases across different stages of an epidemic. Developed as part of the Map and Match project, it shows how countries can prepare for vaccine roll-out and use digital tools and analytics to ensure safe and fair deployment of vaccines. The section on ‘Utilization of outbreak control tools’ specifically depicts how vaccines are deployed, distributed, and scaled as a crucial outbreak control tool during an epidemic.

## Digital Square coordination with DICE

The [Digital Health Centre of Excellence](#), or DICE, is a multi-agency consortium led by UNICEF and WHO. It was formed in April 2021 with an aim to more effectively organize support and provide coordinated technical assistance to countries for COVID-19 response, as well as for post-pandemic health system needs. As low- and middle-income countries continue to roll-out COVID-19 vaccines, DICE ensures efficient and equitable roll-out through sustainable and scalable deployment of carefully chosen digital health solutions. This includes solutions for training and communicating with frontline health workers, roll-out of vaccines and subsequent monitoring of coverage, and other innovative, digital aspects of country response activities.

As a technical partner to DICE, Digital Square is supporting ministries of health and is working with global goods partners to adapt software tools for COVID-19 vaccine rollout. Digital Square supports DICE through a variety of mechanisms, including:

- Supporting partnerships and engagement
- Secondments of staff to DICE or regional offices
- Creating country-level landscapes of digital tools for frontline health workers
- Engaging the global goods community

Digital Square is working closely with DICE consortium partners including UNICEF and WHO and is proactively looking for opportunities to support countries looking to invest in digital solutions for COVID-19 pandemic response. Through our collective partnership, we aim to not only support country-needs now, but also help country leaders build stronger, more sustainable digital systems, which will improve health outcomes beyond the current pandemic.