Mapping of Digital Health Tools and Technologies:

Kiribati Country Brief

July 2021

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Abbreviations and Acronyms

CCEI	Cold Chain Equipment Inventory
CO	Country Office
COD	Common Operational Datasets
CRVS	Civil Registration and Vital Statistics
DHIS 2	District Health Information System 2
DICE	Digital Health Center of Excellence
EMR	Electronic Medical Record
GIS	Geographic Information Systems
HIV	Human Immunodeficiency Syndrome
HMIS	Health Management Information System
ICT	Information and Computer Technology
IVR	Interactive Voice Response
LMIS	Logistics Management Information System
MFL	Master Facility Registry
MOH	Ministry of Health
NGO	Non-governmental organization
ODK	Open Data Kit
PHIN	Pacific Health Information Network
RCCE	Risk Communication and Community Engagement
SMS	Short Message Service
UN	United Nations
UNICEF	United Children's Fund
WB	World Bank
WFP	World Food Programme
WHO	World Health Organization

Overview

Introduction

The Ministry of Health and Medical Services along with UNICEF's support developed a Costed Digital Health Roadmap in November of 2018. The document highlights the importance of creating a digital health ecosystem that focuses on "helping front-line health workers radically improve delivery and quality of primary care [while] it aims to strengthen person-centric data collection in community facilities, making the process [of data collection] more flexible and efficient." Although Kiribati's geographical context acts in many instances as a barrier (health facilities and health workers are spread across multiple islands, some islands have limited access to healthcare services, etc.), it is believed that Kiribati can benefit from other countries' experiences in implementing digital health and "leapfrog" towards a sustainable digital health ecosystem.

However, the current COVID-19 pandemic has brought forth the urgency of the presence of a strong and integrated digital health ecosystem. The UNICEF Digital Health Mapping tool was created to address this need by identifying all existing digital health systems which can be leveraged towards the greater goal of strengthening the health care system in countries, besides adapting to respond and recover from the COVID-19 pandemic.

Following the overview, this report presents the digital health tools that are in use in Kiribati with details of their usage and scale, and, where available, information about implementing agencies, donors etc. The report concludes with appendices which provide additional resources and information.

Background

UNICEF is implementing a comprehensive health response to COVID-19, focusing on outbreak control and mitigation of the collateral impacts of the pandemic, including the risks to the continuity of health services for children, women, and vulnerable populations in conflict-affected areas. A particular priority area is to support countries for the planning, introduction, and deployment of the COVID-19 vaccine. To support this effort, UNICEF has initiated a country mapping of relevant digital health tools and technologies that can be leveraged to support countries' health initiatives in general as well as for their response to COVID-19.

In addition to this, recently UNICEF and the World Health Organization (WHO) have co-founded the COVID-19 Digital Health Center of Excellence (DICE) to provide coordinated, standardized support and technical assistance to national governments and partners on digital health implementations and solutions, including COVID-19 and COVID-19 vaccine delivery.

The DICE is a multi-agency consortium with a UNICEF-WHO co-hosted secretariat. It is funded by the Bill & Melinda Gates Foundation and GIZ and endorsed by the World Bank, Centers for Disease Control (CDC), The Global Fund, Gavi, Digital Square, EU Commission, USAID and more. Partner organizations have identified staff who can be seconded in the short-term to provide immediate technical expertise. Additional resources will be sought to further coordinate and scale its ability to meet rapidly growing demand. If you would like to request support from the DICE, please write to contact@digitalhealthcoe.org.

Analysis Overview

An in-depth interview with the health specialist working at the national (Kiribati CO) and the immunization, health, and innovation specialists working at the regional (East Asia and

Pacific RO) levels was undertaken in April of 2021. The information gathered from the interview was supplemented with data from the Map & Match exercise by Digital Square and from the World Bank's Digital Health Landscaping assessment. The collated data was entered in the Mapping of Digital Health Tools and Technologies tool.

There are 14 digital health implementations currently being used in Kiribati. One (Internet of Good Things) is implemented at the national level and the remaining 13 are implemented at the sub-national level. Digital health tools are mostly used as information management systems (health, pharmacy, etc.) and registries (patient, comorbidities). Five of the digital health tools utilized in the country are bespoke (custom made) to serve their specific needs.

Strengths

- There is significant commitment from Kiribati's MOH to investing in digital health tools. The Costed Digital Health Roadmap presents a path forward towards this in which there is a strong emphasis on achieving maturity of digital health systems and interoperability.

Gaps

- The majority of the tools are implemented only at the subnational level, possibly reflecting the difficulties that Kiribati's geographical context poses in terms of healthcare delivery, human resources, and infrastructure.
- Several digital health systems in use are bespoke and would need further investments for interoperability with other government systems and for scaling-up.
- Reporting is low at times due to technical difficulties and lack of human resource capacity.
- It is acknowledged that the mapping tool reflects the knowledge of the stakeholders included in the interview(s) and may be excluding systems not known to them. It would be imperative to engage with all organizations operating in the health space for a more comprehensive view.

Opportunities

- Explore the need and feasibility of expansion of digital tools to new areas that may offer the greatest impact on healthcare and delivery service, such as immunization stock forecasting and delivery monitoring and telemedicine.
- Explore the need and feasibility to transition bespoke digital health tools towards digital public goods so that a mature digital health ecosystem can be achieved faster.
- Scale-up many of the digital health tools used at the subnational level to national level, particularly those that are digital public goods.
- Continue to invest in human resources capacity and infrastructure.
- Foster coordination with other UN agencies, INGOs, and entities engaged in digital health interventions as well as with the MOH to ensure a more comprehensive mapping in future exercises.

Digital Health Tools and Technologies

National	Subnational
• Internet of Good Things	• DHIS2 • DHIS2 Tracker Capture • mSupply • Tupaia • ONA Canopy • Mapinfo • RapidPro • Talkwalker • Bespoke (MS Excel) Electronic Medical Record • Bespoke (PHP & MySQL) Civil Registration and Vital Statistics • Bespoke (MS Excel) Patient Registry • Bespoke (MS Excel) Immunization Forecasting • Bespoke (MS Excel) Comorbidity Registry

Digital Health Tool	DHIS2
Description	DHIS2 is used as a national health information system platform for integrated data management and analysis for program monitoring and evaluation in 70+ countries. It is primarily used for reporting and analysis of routine health data; but also serves as a de facto facility registry, can be deployed for service availability mapping and other periodic survey activities, and as a data warehouse to facilitate integrated analysis. Increasingly, it is also used as a 'last-mile' solution for logistics monitoring, particularly at health facility level. DHIS2 comes with three data models 1) aggregate, 2) single events (e.g. for line-listing data) and 3) longitudinal tracking of any entity (patient or otherwise) over time. The core DHIS2 software includes a number of web apps for data capture, analysis, reports, maintenance, user management, data quality, etc. The tracker model supports use cases such as case-based surveillance and patient follow-up; and can be used in tandem with other data models. In addition, an Android app is a core component of the platform to enable out-of-the-box mobile data collection with no interoperability layers required. A DHIS2 Android Software Development Kit (SDK) enables developers to customize mobile application interfaces that integrate natively with DHIS2, supporting all three data models (aggregate, event, tracker). DHIS2 is entirely generic and configurable through a web interface, which means it can be used for any number of use cases.
Current Use Case(s)	Health Management Information System
Scale	Subnational
Implementer(s)	MOH
Donor(s)	-
Licensing	Open Source
Website	https://dhis2.org/
Covid-19 Specific Functions	Digital packages for COVID-19 capitalize on the core functionality of DHIS2 and the DHIS2 Android Capture app to support COVID-19 surveillance and response activities. COVID-19 metadata packages are modular in nature and can be installed together or separately in a country's DHIS2 system: COVID-19 Case-based surveillance [tracker data model]: enrolls & tracks suspected cases; captures symptoms, demographics, risk factors & exposures; creates lab requests and captures laboratory data about the case; links confirmed cases with contacts; and monitors patient outcomes. This package can be installed as a standalone COVID-19 form or can be integrated into a country's existing integrated disease surveillance & response tracker. Contact registration & follow-up program [tracker data model]: strengthens active case detection through contact tracing activities, such as identification and follow-up of contacts of a suspected or confirmed COVID-19 case.

	Ports of Entry screening & follow-up program [tracker]: enrolls travelers who have visited high-risk locations at Ports of Entry for 14-day monitoring and follow-up. COVID-19 Surveillance Event Program [event]: a simplified line-list that captures a subset of minimum critical data points to facilitate rapid analysis & response, particularly useful when caseloads or burden of reporting exceeds capacity for case-based surveillance tracker COVID-19 Aggregate Surveillance [aggregate]: an aggregate reporting dataset that captures minimum necessary data points for daily or weekly reporting. Core DHIS2 functionality to support COVID-19 includes: longitudinal tracking of suspected and confirmed COVID-19 cases (through Tracker data model), line-listing (through Event data model), alerts & notifications (e.g. thresholds), working lists, DHIS2 Android App for seamless mobile data capture, automated dashboards, on-the-fly calculation of key indicators and data-push features for exporting and sharing COVID-19 data.

Digital Health Tool	DHIS2 Tracker Capture
Description	Tracker is an an application within the DHIS2 platform for the collection of individual-level (or case-based) transactional data, such as medical records for individual patients, confirmed and suspected cases during a disease outbreak, logistical information on specific commodities, or school records for students, to list just a few examples. Tracker supports direct monitoring and follow-up on those cases as well as data analysis and reporting within an HMIS, health program, or other large-scale project that requires information management down to a granular level.
Current Use Case(s)	Community Based Information System
Scale	Subnational
Implementer(s)	MOH
Donor(s)	-
Licensing	Open Source
Website	https://dhis2.org/tracker/
Covid-19 Specific Functions	See information on Covid-19 specific functions in the DHIS2 box above.

Digital Health Tool	mSupply
Description	mSupply is a pharmaceutical supply chain management software primarily used by developing nations around the world. mSupply if designed from the ground up with pharmaceutical warehouses, stores and hospital dispensaries in mind. In Kiribati, Tupaia is integrated with mSupply to help reduce urgent orders and improve the supply chain. More information can be found here.

Current Use Case(s)	Pharmacy Information System, Logistics Management Information System
Scale	Subnational
Implementer(s)	MOH, Beyond Essential
Donor(s)	-
Licensing	Proprietary
Website	https://msupply.org.nz/
Covid-19 Specific Functions	mSupply features multiple tools to support vaccination programs, including COVID-19 vaccination efforts: mSupply Desktop, mSupply Mobile, mSupply ColdChain, mSupply Dashboard, and mSupply Synchronization. mSupply has been used for patient registration, stock management, vaccination distribution and stock management, and data visualization by countries during their COVID-19 vaccination campaigns. A presentation of the COVID-10 related work can be seen here.

Digital Health Tool	**Tupaia**
Description	Tupaia is a data aggregation, analysis and visualisation platform that works to map health systems in the Indo-Pacific region. This is used to strengthen services, manage projects and help governments fairly distribute resources. Tupaia has developed an easy to use, interactive online map that gives a bird's eye view to decision makers, health workers, donors and members of the public on medicines, equipment, infrastructure, staff, services and research. Information on how Tupaia is being used in Kiribati can be found here and here.
Current Use Case(s)	Pharmacy Information System, Public Health and Disease Surveillance
Scale	Subnational
Implementer(s)	MOH, Beyond Essential
Donor(s)	-
Licensing	Open Source
Website	https://info.tupaia.org/
Covid-19 Specific Functions	Tupaia is supporting the response to the COVID-19 pandemic in a variety of ways throughout the Pacific. More information on their work can be found here.

Digital Health Tool	**ONA Canopy**
Description	Canopy Analytics is a first data management solutions platform designed specifically to meet the demanding needs of social impact and

	international development organizations.
Current Use Case(s)	Data Visualization
Scale	Subnational
Implementer(s)	-
Donor(s)	-
Licensing	Open Source
Website	https://ona.io/
Covid-19 Specific Functions	ONA has partnered with multiple organizations (UN, UNICEF, MESH, WFP, AHA Center and others) and governments to help the fight against COVID-19. Their work includes a COVID testing and screening system, monitoring and evaluation, and risk communication and community engagement. Case studies of their COVID-19 use cases can be seen here.

Digital Health Tool	**Mapinfo**
Description	A complete, desktop mapping solution for the geographic information system (GIS) analyst to manage, analyze, visualize, and publish location-based data.
Current Use Case(s)	Geographic Information System Mapping (GIS)
Scale	Subnational
Implementer(s)	MOH along with other ministries in the country
Donor(s)	-
Licensing	Proprietary
Website	https://www.precisely.com/product/precisely-mapinfo/mapinfo-pro
Covid-19 Specific Functions	The widespread use of GIS for COVID-19 response has demonstrated the power of geospatial thinking and the scalability, speed, and insight provided by GIS. More than simply mapping phenomena, GIS uses geography to furnish context for events in a common reference system. Applying spatial analysis tools, GIS brings out the relationships, patterns, and associations that are often hidden by the complexity of data. More information on the possible uses of GIS technology for COVID-19 can be found here and here.

Digital Health Tool	**RapidPro**
Description	RapidPro is an open source software that allows the setting up of a workflow logic to collect any kind of data via SMS. The software has features for managing users' contacts, sending messages in multiple languages and inter-operating with external systems. The RapidPro

	software can be hosted as a service on a local computer server, or on the cloud. The SMS facility is widely available on all types of phones, hence can reach a wide and diverse audience. RapidPro does not require an active internet connection, making the SMS implementation cost-effective from a business standpoint. RapidPro provides a continuous stream of "living" data that offers unique opportunities to react in real time to changes at the level of implementation.
Current Use Case(s)	RapidPro for Health, RapidPro for Education, U-Report, SMS, and Facebook Messenger
Scale	Subnational
Implementer(s)	UNICEF
Donor(s)	-
Licensing	Open Source
Website	https://community.rapidpro.io/
Covid-19 Specific Functions	RapidPro is being used for COVID-19 in a variety of countries and contexts, such as Mexico and Zimbabwe.

Digital Health Tool	**Internet of Good Things**
Description	Internet of Good Things (IoGT) hosts mobile-packaged content designed to make life-saving and life-improving information available for free, even on low-end devices. IoGT is helping communities and frontline workers access educational and lifesaving information at the point of care. Topics and issues on Internet of Good Things include maternal health, hygiene, emergency information on diseases such as Yellow fever, Polio and Cholera, HIV and sexual health advice for adolescents, Internet safety, positive parenting techniques and more. Including multimedia elements and 2-way communication features, the IoGT platform can also be used to capture feedback and local best practices from communities through polls and survey functionalities.
Current Use Case(s)	Community Engagement, Community Health Worker Learning Management System
Scale	National
Implementer(s)	MOH, UNICEF
Donor(s)	-
Licensing	Open Source
Website	https://pacific.goodinternet.org/ http://www.goodinternet.org/
Covid-19 Specific	IoGT is being used in a variety of ways in the fight against COVID.

Functions	Particularly in the Pacific region, IoGT is being used as an informational hub for health workers and the general population for COVID-19 and COVID-19 vaccinations.

Digital Health Tool	**Talkwalker**
Description	Talkwalker is a social media management tool that's laser focused on tracking a brand's global online reputation and sentiment through online, social, print, TV, and radio. The tool generates actionable insights and competitive metrics.
Current Use Case(s)	Social Monitoring
Scale	Subnational
Implementer(s)	-
Donor(s)	-
Licensing	Proprietary
Website	https://www.talkwalker.com/
Covid-19 Specific Functions	Social listening tools, such as Talkwalker, are being used around the world to carry out social listening and social monitoring by MOHs, other official entities, NGOs, and the private sector to monitor mis- and disinformation regarding COVID-19 and COVID-19 vaccination. More on social listening and social monitoring sample applications can be found here.

Digital Health Tool	**Bespoke (MS Excel) Electronic Medical Record**
Description	Electronic medical records (EMRs) are digital versions of the paper charts in clinician offices, clinics, and hospitals. EMRs contain notes and information collected by and for the clinicians in that office, clinic, or hospital and are mostly used by providers for diagnosis and treatment. EMRs are valuable because they enable providers to track data over time, identify patients for preventive visits and screenings, monitor patients, and improve healthcare quality.
Current Use Case(s)	Electronic Medical Record
Scale	Subnational
Implementer(s)	-
Donor(s)	-
Licensing	Proprietary
Website	-
Covid-19 Specific Functions	-

Digital Health Tool	Bespoke (PHP & MySQL) Civil Registration and Vital Statistics
Description	A well-functioning civil registration and vital statistics (CRVS) system registers all births and deaths, issues birth and death certificates, and compiles and disseminates vital statistics, including cause of death information. It may also record marriages and divorces.
Current Use Case(s)	Civil Registration and Vital Statistics
Scale	Subnational
Implementer(s)	-
Donor(s)	-
Licensing	Proprietary
Website	-
Covid-19 Specific Functions	-

Digital Health Tool	Bespoke (MS Excel) Patient Registry
Description	A patient registry is an organized system that uses observational study methods to collect uniform data (clinical and other) to evaluate specified outcomes for a population defined by a particular disease, condition, or exposure, and that serves one or more predetermined scientific, clinical, or policy purposes.
Current Use Case(s)	Patient Registry
Scale	Subnational
Implementer(s)	-
Donor(s)	-
Licensing	Proprietary
Website	-
Covid-19 Specific Functions	-

Digital Health Tool	Bespoke (MS Excel) Immunization Forecasting
Description	Immunization Forecasting tools show details about the patient's next recommended immunizations wherever the immunization history appears. These details may include: the next expected dose in the series (1st dose, 2nd, 3rd, etc), the recommended date (when it is ideal to receive this immunization) along with the patient's age on that date, the minimum

	date the immunization could be given early, a past due date, and a maximum date after which the shot or series would be invalid.
Current Use Case(s)	Immunization Forecasting
Scale	Subnational
Implementer(s)	-
Donor(s)	-
Licensing	Proprietary
Website	-
Covid-19 Specific Functions	-

Digital Health Tool	**Bespoke (MS Excel) Comorbidity Registry**
Description	The presence of comorbidities can significantly affect a patient's treatment options, quality of life, and survival. Comorbidity registries keep track of comorbidities which help inform medical decisions. In Kiribati, the comorbidity registry records tuberculosis cases.
Current Use Case(s)	Tuberculosis Comorbidity Registry
Scale	Subnational
Implementer(s)	MOH
Donor(s)	-
Licensing	Proprietary
Website	-
Covid-19 Specific Functions	-

Auxiliary tools

Tool	**Common Operational Datasets (COD)**
Description	CODs are authoritative reference datasets used to support operations and decision-making in the initial response of humanitarian emergencies as well as to enable activities such as microplaning. Frequently collected and used CODs are geographical shapefiles, health facility catchment areas, settlements, population estimates, satellite imagery, and ancillary geospatial layers.
Current Use Case(s)	Common Operational Datasets

Scale	National
Access to CODs	Kiribati's CODs

Digital Health Tool	SMS Shortcode
Description	A short code is a special telephone number designed for high-throughput, two-way messaging. Short codes are used to send and receive SMS and MMS messages to and from mobile phones.
Current Use Case(s)	Core Mobile Services
Scale	National
Implementer(s)	Vodafone Kiribati
Covid-19 Specific Functions	Core mobile services can be used by governments and MOHs for a variety of purposes related to COVID-19 such as to provide health advice; where to access care, testing, and vaccination; get COVID-19 test results back, etc. Currently the government of Mongolia is using it for COVID-19 vaccination.

Tool	TV and Radio
Description	TV and radio used for health messaging and/or risk communication and community engagement. Also used for community health worker training.
Current Use Case(s)	Traditional Media, RCCE, Community Health Worker Training
Scale	National
Implementer(s)	MOH

Annex: Use Case Definitions

Use Case	Description
Civil Registration and Vital Statistics (CRVS)	Digital systems used to record statistics on vital events, such as births, deaths, marriages, divorces and fetal deaths
Cold Chain Equipment Inventory	Technology to continually keep track of cold chain equipment status (inventory and working status)
Cold Chain Monitoring	Technology to continually monitor temperature-sensitive products being transported in a “cold chain”—that is, a supply chain of perishable and/or temperature-sensitive
Common Operational Datasets	Authoritative reference datasets needed to support operations and decision-making for all actors in a humanitarian response.
Community Based Information System (CBIS)	Family-centered health information system designed for CHWs to manage their work in educating households and delivering an integrated package of promotive, preventive, and basic curative health services
Comorbidity Registry	The presence of comorbidities can significantly affect a patient's treatment options, quality of life, and survival. Comorbidity registries keep track of comorbidities which help inform medical decisions
Contact Tracing	Contact tracing is the process of identifying all people that a positive patient has come in contact with
Core Mobile Services	Services used by GSM cellular phones (feature phones) (SMS Aggregator, SMS Shortcode, IVR Shortcode, USSD Services)
Data Visualization	Digital tools used for graphical representation of information and data
Digital Yellow Card	Digital credentialing for vaccinations
Electronic Medical Record (EMR)	Electronic record for patients - includes information about a patient's health history, such as diagnoses, medicines, tests, allergies, immunizations, and treatment plans
Geographic Information System	Framework for gathering, managing, and analyzing data
Health Management Information Systems (HMIS)	Data collection system to support planning, management, and decision making in health facilities and organizations. It can provide reliable and timely info on health system performance
Health Worker Registry	A registry of all the health workers in the country
Immunization Delivery Monitoring	Digital tools that are used for vaccine handling, distribution, and tracking of vaccines
Immunization Forecasting	The Immunization Calculation Engine (ICE) is an immunization evaluation and forecasting system, whose default immunization schedule supports all routine childhood, adolescent, and adult immunizations. ICE evaluates a patient's immunization history and generates the appropriate immunization recommendations for patients

Immunization Stock Forecasting	System or platforms that can forecast vaccine orders based on utilization which can enable COs to identify risks of stock outs or overstocking and take action before they occur
Interactive Voice Response (IVR)	Automated phone system technology that allows incoming callers to access information via a voice response system of pre-recorded messages
Laboratory and Diagnostics Information Systems (LDIS)	Software system that records, manages, and stores data for laboratories and can send laboratory test orders to lab instruments, tracking those orders, and then recording the results
Logistics Management Information System (LMIS)	System of records and reports used to aggregate, analyze, validate, and display data (from all levels of the logistics system) that can be used to make logistics decisions and manage the supply chain. Includes stock on hand, losses and adjustments, consumption, demand, issues, shipment status, and information about the cost of commodities managed in the system
Master Facility Registry	Comprehensive repository of health facilities of the country - would include all admin information and the status of the facility, staff, CCes, etc.
Mobile Community Health Worker Learning Management System (CHW LMS)	Learning management systems functioning in the country for community health workers
National ID	Digital national identity systems
Patient Registry	A patient registry is an organized system that uses observational study methods to collect uniform data (clinical and other) to evaluate specified outcomes for a population defined by a particular disease, condition, or exposure, and that serves one or more predetermined scientific, clinical, or policy purposes.
Pharmacy Information System	Supports the distribution and management of drugs, shows drug and medical device inventory, and facilitates preparing needed reports
Public Health and Disease Surveillance	Contributes data and information to assess and characterize the burden and distribution of adverse health events, prioritize public health actions, monitor the impact of control measures, and identify emerging health conditions that may have a significant impact upon population health
RapidPro	RapidPro is a software product that allows you to visually build the workflow logic for running mobile-based services. This software includes features for managing your users' contacts dynamically, graphically analyzing the data your service receives, connecting to multiple communication channels (ie SMS, voice, USSD, and social media), sending messages in multiple languages, and interoperating with external systems

Social Media for Risk Communication and Community Engagement (RCCE)	Utilization of social media for health messaging dissemination
Social Monitoring	Capture of what is said in social media platforms
Telemedicine	Platform used by providers to connect with patients and share video and images. It can be integrated with a provider's electronic health record and scheduling systems
Track and Trace System	Track and Trace systems enable the traceability/visibility of products from origin through various distribution processes down to patient
Traditional Media	Traditional media that may be used for outreach and messaging (TV, radio, other)

Additional Resources

Resources	Description	Website
Mapping of Digital Health Tools and Technologies in Countries (View only)	This workbook indicates the presence of tools and digital technologies being used for health initiatives and other sectors in UNICEF Country Offices (COs)	http://uni.cf/mapping-digital-health
M&M Global goods possible use cases	This document provides a list of Digital Square approved global goods mapped across the use cases visualized in the DATEC. The global goods are grouped by those that have already been adapted to match a use case and those that could be adapted to match a use case (i.e., simple, easy, low-lift adaptations).	https://static1.squarespace.com/static/59bc3457ccc5c5890fe7cacd/t/60522885399dca3568666606/1615997063979/Global+Goods+COVID+Map.pdf
Digital Implementation Investment Guide (DIIG): Integrating Digital Interventions into Health Programmes	This practical Guide provides a systematic process for countries to develop a costed implementation plan for digital health within one or more health programme areas, drawing guidance from the WHO guideline–recommended digital health interventions, providing direction to ensure investments are needs-based and contribute effective and interoperable systems aligned with national digital architecture, country readiness, health system and policy goals.	https://www.who.int/publications/i/item/9789240010567
Digital Health Atlas	The Digital Health Atlas is a WHO global technology registry platform aiming to strengthen the value and impact of digital health investments, improve coordination, and facilitate institutionalization and scale.	https://digitalhealthatlas.org/en/-/
Global Digital Health Index Country Profile	The Global Digital Health Index is an interactive digital resource that tracks, monitors, and evaluates the use of digital technology for health across countries.	http://index.digitalhealthindex.org/map

Assessing country readiness for COVID-19 vaccines	The country readiness assessments for COVID-19 vaccines are undertaken jointly by governments; the World Bank; Gavi, the Global Vaccine Alliance; the Global Fund to Fight AIDS, Malaria and Tuberculosis; UNICEF and the World Health Organization. This report presents initial findings of 128 countries as of March 2021	https://documents1.worldbank.org/curated/en/467291615997445437/pdf/Assessing-Country-Readiness-for-COVID-19-Vaccines-First-Insights-from-the-Assessment-Rollout.pdf
Digital health implementation guide for the pacific	This guide presents the analysis and recommendations of the Asian Development Bank (ADB) and is supported by case studies from Pacific developing member countries to strengthen its relevance	https://www.adb.org/sites/default/files/publication/677181/digital-health-implementation-guide.pdf?__cf_chl_captcha_tk__=pmd_b0ec7ec2e94dfc432b51fc80c3f15fee42502f6f-1627021868-0-gqNtZGzNAw2jcnBszQjO
Evaluation of the Pacific Health Information Network (PHIN)	Assesses the networks vision, strategy and lessons learned from the past 12 years of its existence and to guide us in our strategy for the future	https://www.who.int/docs/default-source/wpro---documents/dps/evaluation-and-renewed-vision-and-strategy-(2019-2021)-for-the-pacific-health-information-network-(phin).pdf?sfvrsn=c48bf1f7_2