ICT4D / Digital Health Tools for COVID-19

CRS CATHOLIC RELIEF SERVICES

The ICT4D tools that CRS uses everyday in humanitarian responses and development programs are field-tested and ready to use. Many standard features are applicable to COVID-19 responses. Technology partners are also offering tailored capabilities.

Case Management

Over 200 CRS programs across all sectors use CommCare for case reporting and case management. This tracks repeat interactions with program participants, changes in conditions, and delivery of goods or services.

CommCare

Needs Assessment

CRS has pre-configured form libraries for needs assessments and baseline surveys in CommCare and the Cash and Assets Transfer Platform (CAT) using Red Rose Collect.

CommCare   RED ROSE

Supply Chain (Pre-Insight)

In emergency scenarios, supply chain communications can be challenging or restricted/delayed due to lack of internet. However, it is possible to create a supply chain information solution that works using SMS (short message service, or text messaging) only. With this you can communicate inventory needs, inventory status, deliveries, and distribution of goods. CRS recently deployed an text messaging tool to track malaria commodities in Congo.

Telerivet

Cash / Vouchers

Addressing secondary impacts of communities affected by COVID-19 may include cash and voucher assistance (CVA) or in-kind distributions. The Cash and Assets Transfer Platform (CAT) is a tool for tracking CVA and distributions that is compliant with CRS financial controls. HRD has a pre-positioned MEAL survey library for RRCollect and CommCare for rapid responses. Deployable CAT hardware may also be available. See CAT user portal.

RED ROSE

Maps

Mapping and spatial analysis are powerful tools to communicate, share situational awareness and optimize response planning. Esri curates COVID-19 resources including datasets, mapping apps, and examples. There are also specific templates for: *Community Impact Dashboards; Case Reporter; Medical Facilities Locator; Testing Sites Locator; Facility Status Manager; and more.*

ArcGIS

Frontline Workers

Community health workers can use mobile apps to log client interactions, adhere to medical protocols, and track activity. The ReMiND project is one of CRS' longest running health programs and has accrued a wealth of evidence about the impact of using digital tech.

CommCare

Surveillance & Tracing

Drawing on their experience in Ebola response, Dimagi (CommCare vendor) developed a template app for WHO's First Few X (FFX) Cases and contact investigation protocol for COVID-19.

CommCare

Reports, Dashboards

Data visualization helps field teams, partners, and other stakeholders work from a common source of information. There are many examples using Power BI to show COVID-19 impact and a variety of data sources that can be integrated into dashboards.

Power BI

75+ Digital Health Tools

Most CRS responses and programs will be able to leverage standard tools. But when a highly specialized use case arises, there is a growing catalog of digital tools available. GKIM can help you evaluate options. http://bit.ly/COVID-DigitalTools

Social and Behavior Change Communication

Info Hotlines

Viamo works with mobile network operators to reach vulnerable populations. CRS partners with Viamo to offer information hotlines (3-2-1 service) in several countries. Viamo added WHO-approved COVID-19 messaging to hotlines in 17 countries. Other COVID-19 use cases are described here.

Bulk SMS

CRS has experience with a variety of tech partners who can implement social behavior change communication using mediums such as automated SMS messages. CRS uses bulk SMS in India to reduce preventable child death through reminders to community health workers and in Nigeria to for malaria messaging.

Automated Calls

CRS has several tech partners who offer interactive voice response (think robo-calls). For example, in Rwanda CRS used automated calls in the Gikuriro project to deliver messages on complementary feeding practices to caregivers with children.

viamo   Telerivet   CommCare

Budgets & Business Development

Cost guidance is available to help prepare a budget for using technology in a COVID-19 response. General ICT4D business development resources are available here. Specific concept notes and other resources will be added as they are developed. GKIM can assist with incorporating ICT4D into budgets and program/response design.

Emerging Tech

Artificial Intelligence

NetHope's Artificial Intelligence Workgroup is crowd-sourcing artificial intelligence and machine learning use cases for COVID-19 responses from NGOs, subject matter experts and technology partners.

Chatbots

Social and behavior change communications can use chatbots to emulate human conversation through pre-defined or dynamic scripts. They can be embedded in tools such as WhatsApp, Skype, social media, or simple SMS. To the user, it will feel like speaking with a real person. However, it is an algorithm sending messages, answering questions, and even performing tasks such as fetching data, or transferring the conversation to a human. Chatbots use automation to scale quickly.

Best Practices

Principles for Digital Development

The Principles for Digital Development are guidelines for using tech in development and humanitarian response. CRS committed to, and formally endorsed, the principles in 2016.

1. Design with the User
2. Understand the Existing Ecosystem
3. Design for Scale
4. Build for Sustainability
5. Be Data Driven
6. Use Open Standards, Open Data, Open Source, and Open Innovation
7. Reuse and Improve
8. Address Privacy and Security
9. Be Collaborative

Integrate with National Systems

District Health Information System is the health management information system used in 67 low and middle-income countries. NGOs responding to COVID-19 may be required to submit information to the Ministry of Health's DHIS2 system. DHIS2 released a COVID-19 surveillance tracker package. Standard tools like CommCare can be integrated with DHIS2.

dhis2

Align with National Strategy

Most countries have a digital health strategy. For example, strategies for 42 countries in Africa are linked to here. The Digital Health Atlas aims to strengthen the value and impact of digital health investments, improve coordination, and facilitate and scale by registering technologies and where they are used. Organizations responding to COVID-19 can refer to the atlas to see what digital tools are used where.

World Health Organization   Digital Health Atlas

Lessons from Ebola

A wealth of experience was accrued using digital tools in the West Africa Ebola response. Many lessons are captured in this guide: *Fighting Ebola with Information: Learning from the Use of Data, Information, and Digital Technologies in the West Africa Ebola Outbreak Response.* Key recommendations include: align with national digital health strategies; understand connectivity limitations; build staff and org data literacy; use interoperable technology that aligns with national strategy; promote ethical, responsible use of data; adhere to data standards; understand the use environment; include feedback loops; and design responses to incorporate digitized information flows.

USAID
FIGHTING EBOLA WITH INFORMATION
USAID
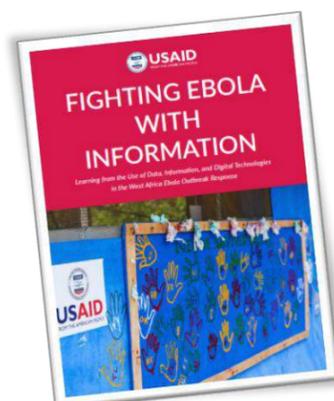
More information about these tools is at https://crsorg.sharepoint.com/sites/Knowledge-and-Innovation

Have questions or want to discuss specific use cases? Contact stephen.hellen@crs.org