



Leveraging digital health to enhance data literacy of health facility workers

In operation and supported by Irish Aid since 2017, the Access to Infant and Maternal Health Plus Project (AIM Health Plus) addresses the leading causes of maternal and neonatal mortality and improves young child survival and nutritional status across four countries in Africa. Working in four chiefdoms in the Bonthe district of Sierra Leone (Bonthe Municipal, Dema, Imperi and Sittia) and through 24 health facilities, the AIM Health Plus team has included a digital health component to support community health worker (CHW) programming since 2018.

This digital health project provides CHWs with smartphones equipped with a tailored CommCare app to use during their home visits. These digital tools support CHWs who are using the <u>Timed and</u> Targeted Counselling (ttC) approach to promote positive health and nutrition behaviour change among pregnant women and mothers or caregivers of children under 2. The app reminds CHWs to visit homes at the ideal time during pregnancy, infancy and childhood. It also supports CHWs as they conduct counselling sessions, including enabling them to submit community health data to the project's secure cloud-based repository. This near real-time data that CHWs gather is then shared with collaborating health facilities and the Bonthe District Health Management Team (DMHT). These government health teams use the data to manage CHW efforts, plan how to improve the programme and make longer-term strategic decisions. The app also includes local language audio clips to boost comprehension and understanding among CHWs and their clients.

The CommCare app aims to improve the efficiency of CHW work by helping them to reach more clients in a timely manner. It also helps improve the effectiveness of behaviour change counselling that CHWs offer women and caregivers of children under 2 by guiding them on how to structure their visits and offering relevant audio clips to reinforce key messages. Finally, the app helps strengthen the health system by improving utilisation of community-level data.





From October 2020 through September 2021, the AIM Health Plus project team in Sierra Leone emphasised data literacy skills training for staff at collaborating health facilities and on the DMHT. The training helped strengthen CHW supervision and use of the information systems that support it. The project team also continued to update the app and to provide key equipment such as desktop computers for collaborating health facilities. The project team estimates that 92% of CHWs working in the project areas are using the CommCare app.

As the AIM Health Plus project completes its final year, the project team is working to integrate the app's data stream with the Ministry of Health's information systems and transfer digital health capability for use in 14 other area programmes (communities) served by World Vision Sierra Leone's Health and Nutrition programming.





Education, WASH





Level of interoperability or integration

with national health information system:[‡]

Established







Strategic imperative:**

Deepen our commitment

to the most vulnerable girls and boys



WHO HEALTH SYSTEM CHALLENGES** ADDRESSED

Information	Availability	Quality	Acceptability
 Delayed reporting of events Lack of access to information or data Lack of quality/reliable data 	Insufficient supply of equipment	 Inadequate supportive supervision Low quality of health commodities Poor patient experience 	 Lack of alignment with local norms Not addressing individual beliefs and practices
Utilisation	Efficiency	Cost	Accountability
Geographic inaccessibility Loss to follow-up Low adherence to treatments Low demand for services	■ Delayed provision of care	■ Not applicable	 Insufficient patient engagement Poor accountability between the levels of the health sector Unaware of service entitlement

WHO DIGITAL HEALTH INTERVENTIONS** USED

Clients	Healthcare providers	Health system managers	Data services
 1.1 Targeted client communication 1.4 Personal health tracking 	 2.1 Client identification and registration 2.2 Client health records 2.6 Referral coordination 2.7 Health worker activity planning and scheduling 	 3.6 Equipment and asset management 3.7 Facility management 	 4.1 Data collection, management, and use 4.4 Data exchange and interoperability

WHO HEALTH FOCUS AREAS

- Adolescent and youth health
- Civil registration and vital statistics
- Cross cutting
- Infectious diseases (non-vector borne)
- Maternal health
- Newborn and child health Nutrition and metabolic disorders
- Sexual and reproductive health
- Vector-borne diseases (not listed under neglected tropical diseases)
- Violence
- Water, sanitation and hygiene (WASH)

PROJECT MODELS AND APPROACHES# USED

CORE

- Community Health Committees (COMM)
- Community Health Workers (CHW)
- Positive Deviance Hearth Plus (PDH+)

ADDITIONAL

Grandmother-inclusive Approach (GMIA)

ENABLING

- Channels of Hope (CoH)
- Citizen Voice and Action (CVA)

DIGITAL TOOLS AND TECHNOLOGY PARTNERS

DIGITAL TOOLS

- CommCare
- Power BI

TECHNOLOGY PARTNER

National Telecommunication Commission

MOBILE NETWORK OPERATORS

- Africell
- Orange

STAKEHOLDERS

DOMESTIC GOVERNMENT PARTNERS

- Ministry of Health and Sanitation
- Bonthe District Council
- Bonthe District Health Management Team (DMHT)

NON-PROFIT AND NON-GOVERNMENTAL **ORGANISATION PARTNERS**

- Action for Wholistic Empowerment (AWE-SL)
- Community Advocacy and Development Agency, Sierra Leone (CADA)

WORLD VISION PARTNER

World Vision Ireland

FUNDING PARTNER

Irish Aid (Government of Ireland)

PROJECT CONTACTS

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are taken from the WHO <u>Classification of Digital Health Interventions</u>.

These classifications have been defined organisation-wide by World Vision.





For more information: https://www.wvi.org/digital-health



^{*} All information refers to the period October 2020–September 2021. [†]World Health Organization (WHO) project stages and health focus areas are taken

[‡]The integration/interoperability categories are taken from the <u>Health Information</u> Systems Interoperability Maturity Toolkit: Model.

Star ratings range from 1: Not yet considered to 5: Intended and designed for scale-up.

Strategic imperatives are key elements of World Vision's

WHO health system challenge categories and digital health intervention categories