Making digital health tools locally acceptable

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. Over the past several years, AIM Health Plus in Tanzania has included a digital health component to support community health worker (CHW) programming in Bahi and Chemba districts of the Dodoma region.

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 Timed and 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 the Ministry of Health and is used for managing CHW efforts, planning how to improve the programme and making 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. The app 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. Recently, the AIM Health Plus team started using Power BI to produce data visualisations that make it easier to gain key insights.

From October 2020 through September 2021, the AIM Health Plus project team trained 40 new CHW users (28 in Mundemu and 12 in Sanzawa area programmes). Now all 215 available CHWs in the project areas are using smartphones equipped with the CommCare app. The AIM Health Plus team also continued to support the expanded CHW workforce by providing key equipment including smartphones, desktop computers and power supply tools.

As the AIM Health Plus project completes its final year, Tanzania and the other AIM Health Plus country teams are taking steps to ensure a smooth handover of this system strengthening effort. The hope is for government counterparts and CHWs to continue to leverage the value of digital health well into the future.

**Photo:** World Vision/Agness John

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**Tanzania**

**AIM Health Plus**

**3**

digital tools deployed since October 2019

**In**

Scaling up project stage

**95%**

complete overall

**37,807**

beneficiaries reached

/icon-people/28.png 26% children ages 0–18  
/icon-people/27.png 38% adult females  
/icon-people/26.png 36% adult males

**LEARN MORE about AIM Health Plus**
WHO HEALTH SYSTEM CHALLENGES

<table>
<thead>
<tr>
<th>Information</th>
<th>Availability</th>
<th>Quality</th>
<th>Acceptability</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Communication roadblocks</td>
<td>• Insufficient supply of equipment</td>
<td>• Inadequate supportive supervision</td>
<td>• Lack of alignment with local norms</td>
</tr>
<tr>
<td>• Delayed reporting of events</td>
<td>• Insufficient supply of services</td>
<td>• Insufficient health worker competence</td>
<td>• Not addressing individual beliefs and practices</td>
</tr>
<tr>
<td>• Insufficient utilisation of data and information</td>
<td></td>
<td>• Poor quality of health commodities</td>
<td></td>
</tr>
<tr>
<td>• Lack of access to information or data</td>
<td></td>
<td>• Poor adherence to guidelines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lack of quality/reliable data</td>
<td>• Poor patient experience</td>
<td></td>
</tr>
</tbody>
</table>

Utilisation

| Geographic inaccessibility | Delayed provision of care | Client-side expenses | Absence of community feedback mechanism |
| Loss to follow-up | Inadequate access to transportation | High cost of manual processes | Inadequate understanding of beneficiary populations |
| Low adherence to treatments | Inadequate workflow management | Lack of coordinated payer mechanism | Insufficient patient engagement |
| Low demand for services | Lack of or inappropriate referrals | Lack of effective resource allocation | Lack of transparency in commodity transactions |

Efficiency

<table>
<thead>
<tr>
<th>Health system managers</th>
<th>Data services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 2.1 Client identification and registration</td>
<td>• 3.6 Equipment and asset management</td>
</tr>
<tr>
<td>• 2.2 Client health records</td>
<td>• 3.7 Facility management</td>
</tr>
<tr>
<td>• 2.6 Referral coordination</td>
<td>• 4.1 Data collection, management, and use</td>
</tr>
<tr>
<td>• 2.7 Health worker activity planning and scheduling</td>
<td>• 4.2 Data encoding</td>
</tr>
<tr>
<td></td>
<td>• 4.3 Location mapping</td>
</tr>
<tr>
<td></td>
<td>• 4.4 Data exchange and interoperability</td>
</tr>
</tbody>
</table>

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)

WHO DIGITAL HEALTH INTERVENTIONS

- CommCare
- Open Data Kit (ODK)
- Power BI

STAKEHOLDERS

DOMESTIC GOVERNMENT PARTNER
- Ministry of Health and Social Welfare

NON-PROFIT AND NON-GOVERNMENTAL ORGANISATION PARTNER
- Community Empowerment for Sustainable Development Tanzania (CESuDe-T)

WORLD VISION PARTNER
- World Vision Ireland

FUNDING PARTNER
- Irish Aid (Government of Ireland)

PROJECT CONTACTS

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TECHNICAL LEADERSHIP
- Noel Mbanguka
  - Digital Health and Monitoring & Evaluation Specialist
  - World Vision Tanzania
  - Email: noel_mbanguka@wvi.org

PROJECT MODELS AND APPROACHES

CORE
- Community Health Committees (COMM)
- Community Health Workers (CHW)

ENABLING
- Citizen Voice and Action (CVA)

DIGITAL TOOLS AND TECHNOLOGY PARTNERS

DIGITAL TOOLS
- CommCare
- Open Data Kit (ODK)
- Power BI

TECHNOLOGY PARTNER
- Dimagi

MOBILE NETWORK OPERATORS
- Airtel
- Halotel

All information refers to the period October 2020–September 2021.

1. World Health Organization (WHO) project stages and health focus areas are taken from the WHO Digital Health Atlas.
2. The integration/interoperability categories are taken from the Health Information Systems Interoperability and Maturity Model.
3. Star ratings range from 1 (Not yet considered) to 5 (Intended and designed for scale-up).

4. Strategic imperatives are key elements of World Vision’s Our Promise strategy.
5. WHO Health system challenge categories and digital health intervention categories are taken from the WHO Classification of Digital Health Interventions.
6. These classifications have been defined organisation-wide by World Vision.