Global Digital Health Summary

Overview
At a time when children and their families around the world are grappling with the global COVID-19 pandemic, World Vision has pivoted to support health and nutrition programmes that prevent transmission, care for those affected by the novel coronavirus and support health systems under strain. The drive to innovate has continued, with tools supporting multi-sectoral programmes focused on mitigating the effects of the pandemic. To help fast-track technology deployment, World Vision vetted six applications and identified three as preferred for the organisation’s global COVID-19 response: Viamo, Last Mile Mobile Solution (LMMS), and CommCare.

In addition, longer-standing projects continue to make solid advances towards scaled deployment in strong partnership with governments and other partners. For the period October 2019 through September 2020, a total of 11 country offices led 14 digital health projects focused on a range of maternal, newborn, and child health and nutrition programming, some of which are part of World Vision’s global COVID-19 response (see map).

For the year ending in September 2020, World Vision gave access to digital health tools to more than 3,000 community health workers (CHWs) and 549 health facilities. Through their work, World Vision’s digital health portfolio reached more than 850,000 beneficiaries – 554,409 of whom were children under age 5 and 15,482 of whom were pregnant or lactating women. In addition, World Vision’s reach includes 37 recent deployments using its preferred tools across 20 countries (see map) as part of its COVID-19 response.

World Vision’s community-focused programming tends to concentrate on preventive and promotive interventions. Figure 1 reflects this by showing a broad scope of health focus areas served by technology for several current health projects. To serve these varied needs, a diverse set of technology requirements emerged. These requirements are reflected in Table 1, which maps the functionalities* addressed by World Vision digital health projects for the year ending September 2020.

For countries with multiple projects, phase coloration matches project with most advanced phase. In addition to supporting programme areas summarised in the box on page 2, projects grouped here as ‘other’ support tuberculosis case management, vaccine cold chain, Ebola vaccine trial follow-up, stock management and more. For further details on specific projects, please see individual World Vision country factsheets: https://www.wvi.org/mobile-support.

* Categories used in Figures 1 and 2 and Table 1 are all taken from the World Health Organization Classification of Digital Health Interventions or from the Digital Health Atlas.
Similarly, this portfolio of technology projects collectively is designed to meet a wide range of health systems challenges*. Table 2 on page 4 summarises the most common types of challenges.

World Vision's portfolio of digital health programming continues to reflect the organisation's maturity around what it takes to bring a project to scale. In 2020, eleven digital health projects were designed for scale and are either in the scale-up process already, are preparing to enter that process, or are being prepared for handover to government partners.

Partnersing is a key element of scale up, and World Vision's digital health work continues to reflect a commitment to collaboration with key partners across the digital health ecosystem (see partners listed on back page).

**Figure 1: Alignment of World Vision Digital Health Projects with Health Focus Areas***

*NOTE: Information on the health focus areas was not received in time from the following projects: eMobile in Angola, B4MCN in Burundi, B-MNCH in Uganda, Pfizer Project Bugiri in Uganda and IREACH in Indonesia. LMHK in Ethiopia reported relevance to the following additional health focus areas: Non-communicable diseases, Other chronic conditions & disabilities, and Violence.

**KEY:**
- Adolescent & Youth Health
- Civil Registration & Vital Statistics
- Cross Cutting
- Environmental Health
- Humanitarian Health
- Infectious Diseases (non-vector borne)
- Maternal Health
- Newborn & Child Health
- Non-communicable Diseases
- Nutrition & Metabolic Disorders
- Sexual & Reproductive Health
- Vector-Borne Diseases
- Water Sanitation & Hygiene (WASH)
- Wellness & Mental Health
Table 1: Digital Health Interventions* Implemented by World Vision Projects

<table>
<thead>
<tr>
<th>INTERVENTION FOR:</th>
<th>CLIENTS</th>
<th>HEALTH CARE PROVIDERS</th>
<th>HEALTH SYSTEM MANAGERS</th>
<th>DATA SERVICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMMK Ethiopia</td>
<td>1.1 Targeted client communication</td>
<td>2.1 Client identification &amp; registration</td>
<td>3.1 Human resource management</td>
<td>4.1 Data collection, management, &amp; use</td>
</tr>
<tr>
<td></td>
<td>1.3 Client-to-client communication</td>
<td>2.2 Client health records</td>
<td>3.2 Supply chain management</td>
<td>4.1 Data collection, management, &amp; use</td>
</tr>
<tr>
<td></td>
<td>1.4 Personal health tracking</td>
<td>2.3 Health-care provider decision support</td>
<td>3.4 Civil registration &amp; vital statistics</td>
<td>4.3 Location mapping</td>
</tr>
<tr>
<td></td>
<td>1.6 On-demand information services to clients</td>
<td>2.4 Teleread</td>
<td>3.6 Equipment &amp; asset management</td>
<td>4.4 Data exchange &amp; interoperability</td>
</tr>
<tr>
<td></td>
<td>1.7 Client financial transactions</td>
<td>2.5 Health-care provider communication</td>
<td>3.7 Facility management</td>
<td>4.4 Data exchange &amp; interoperability</td>
</tr>
<tr>
<td>THRIVE Honduras</td>
<td>1.1 Targeted client communication</td>
<td>2.1 Client identification &amp; registration</td>
<td>3.2 Supply chain management</td>
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<td>Aim Health Plus Mauritania</td>
<td>1.1 Targeted client communication</td>
<td>2.1 Client identification &amp; registration</td>
<td>3.2 Supply chain management</td>
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<td>A35 Niger</td>
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<td>EBODAC Sierra Leone</td>
<td>1.1 Targeted client communication</td>
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<td>3.1 Human resource management</td>
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<td>Aim Health Plus Tanzania</td>
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<td>Aim Health Plus Uganda</td>
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**NOTE:** Numbering of interventions corresponds to the classification system for digital health interventions published by the World Health Organization. Empty cells indicate project does not address this intervention grouping. Information on the digital health interventions was not received in time from the following projects: mSupply in Papua New Guinea, eMobile in Angola, B4MCN in Burundi, B-MNCH in Uganda, Pfizer Project Bugiri in Uganda and IREACH in Indonesia.
Table 2. Most Common Health System Challenges Addressed by World Vision’s Digital Health Portfolio

<table>
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<th>DOMAIN</th>
<th>HEALTH SYSTEM CHALLENGE</th>
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</table>
| Information| • Delayed reporting of events  
• Lack of quality/reliable data  
• Lack of access to information or data  
• Insufficient utilisation of data |
| Availability| • Insufficient supply of health services  
• Insufficient supply of medical equipment |
| Quality    | • Low quality of health commodities  
• Inadequate supportive supervision  
• Poor adherence to guidelines |
| Utilisation| • Geographic inaccessibility  
• Low adherence to treatments  
• Loss to follow-up (patient not following up medical care) |
| Efficiency | • Inadequate workflow management  
• Lack of/inappropriate referrals  
• Delayed provision of care |
| Cost       | • High cost of manual processes  
• Lack of effective resource allocation |
| Accountability   | • Insufficient patient engagement  
• Absence of community feedback mechanisms  
• Poor accountability between levels of the health sector  
• Inadequate understanding of beneficiary population |

Key Health and Nutrition Models† Supported

- Growth Monitoring & Promotion (GMP)
- Positive Deviance Hearth (PD Hearth)
- Timed & Targeted Counselling (ttC)
- Integrated Community Case Management (iCCM)

Other health and nutrition models or approaches:
- Baby-friendly Hospital Initiative; Citizen Voice and Action, Community Health Committees; CHW Training;
- Community-Based Disaster Risk Management; Community-based Management of Acute Malnutrition; Community-based TB Prevention; Emergency Newborn and Obstetric Care;
- Grandmother Approach; Supply Chain Support

Other supporting models or approaches:
- Building Secure Livelihoods; Channels of Hope; Farmer-Managed Natural Regeneration; Local Value Chain Development; Water, Sanitation and Hygiene (WASH)

Technology Applications and Partners

- Software: CommCare, DHIS2, eClinic, mSupply, MOTECH, Open Data Kit (ODK), Salesforce, ODK XForms, DHIS2, KoBoToolbox, Power BI, HOPS (Health Care Solutions Provider, Operations and Service), ORB

- Applications vetted for COVID-19 response: LMMS, CommCare, Viamo

- Mobile Network Operators: Africel, Airtel, Chinguitel, Claro, Digicel PNG, Econet Leo, Ethio telecom, Halotel, Indosat, Lumenet, Mattel, Mauritel, MTN, Orange, Telkomsel, Tigo, UNTEL

Key Stakeholders

- Ministries of Health, including targeted programmes (e.g. malaria control), several countries
- Ministry of Agriculture & Livelihood, Burundi
- Ministry of Agriculture and Livestock, Honduras
- Ministry of Health, Burundi
- Ministry of Environment, Agriculture and Livestock, Burundi
- Ministry of Finance, Tanzania
- Ministry of Information & Communications Technology, Tanzania
- Ministry of Public Sanitation, Niger
- Ministry of Territory, Angola
- District/provincial and local governments and health centres
- District/provincial and local community leaders and groups
- Sierra Leone National Telecommunication Commission
- Sierra Leone eHealth Hub
- Sierra Leone CHW National Coordination Hub
- Alliance for Sustainable Health and Wealth in Africa
- Social Support Fund, Angola
- UNICEF
- United States Agency for International Development
- World Health Organization (WHO)
- Dimagi
- SLK TECHLABS
- Sustainable Solutions
- Grameen Foundation
- VisionFund
- Salesforce
- Alliance for Sustainable Health and Wealth in Africa, Uganda
- Community Advocacy Development Agency, Sierra Leone
- Save the Children, Indonesia
- Salvation Army, Indonesia
- Faith leaders
- Tadulako University, Indonesia
- Janssen Pharmaceutical of Johnson & Johnson

Key Funding Partners

- The Global Fund to Fight AIDS, Tuberculosis and Malaria
- Australian Government
- Irish Aid
- EBODAC – EU Innovation Medicine Initiative
- Janssen Pharmaceutical of Johnson & Johnson
- Pfizer Foundation
- World Vision United States including its Major Donors Program
- World Vision Australia
- World Vision Hong Kong
- World Vision Ireland
- World Vision Canada

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† For more information on these approaches, including technical briefs, and to appreciate the overall World Vision Health and Nutrition strategy, please visit [https://www.wvi.org/health](https://www.wvi.org/health).

‡ Ministry of Health entity reported for 9 countries as follows: Angola, Burundi, Ethiopia, Mauritania, Niger, Papua New Guinea (Department of Health), Sierra Leone (Ministry of Health and Sanitation), Tanzania, Uganda.

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FOR MORE INFORMATION: [http://www.wvi.org/mhealth/](http://www.wvi.org/mhealth/)