ALIVE & THRIVE'S
DIGITAL TECHNOLOGY CATALOG

An overview of the digital technology innovations Alive & Thrive
has developed to help improve nutrition outcomes

Introduction

Digital technology holds enormous potential to improve maternal, infant, young child and adolescent nutrition (MIYCAN) at scale. Enhancing nutrition programming using digital technology allows users to supersede traditional roadblocks such as low-quality infrastructure, inadequate capacity, lack of access to remote populations and insufficient funding that have often prevented MIYCAN interventions from reaching those who need them most.

In the past few years, MIYCAN programs have also faced a confluence of new hurdles including the COVID-19 pandemic, the worsening impact of climate change, growing global conflict, and inflation that has driven up program costs.

These destabilizing forces have exposed the vulnerability of health systems that rely on in-person contact for service delivery and capacity strengthening.

Applied digital technology offers innovative solutions to these challenges and can bolster health system resiliency by allowing countries to maintain high-quality nutrition services in the face of global health and security threats. Digital technology also offers new ways to collect, analyze, and apply data, laying the foundation for more efficient, cost-effective MIYCAN policies and programs. Greater access to computers, hand-held devices, networks and platforms for global connectivity make the use of digital technology for nutrition increasingly feasible even in the most remote regions.

Alive & Thrive has invested in applying digital technology to strengthen nutrition programming across a variety of contexts. The technology we have developed enhances service delivery, generates data in real time, streamlines knowledge transfer, and directly communicates with target audiences, empowering them with up-to-date nutrition knowledge and positively influencing their attitudes and behaviors. From applications (apps) to artificial intelligence, to e-learning and social media, digital technology offers new, potentially transformative, solutions that can improve nutrition outcomes. This brief summarizes how Alive & Thrive is currently leveraging digital technology to strengthen nutrition programming. It catalogs our existing innovations and directs readers to additional information.

About Alive & Thrive

Alive & Thrive is a leading global initiative for maternal, infant, young child, and adolescent nutrition (MIYCAN). Through our focus on improving nutrition throughout the lifecycle, Alive & Thrive builds healthier, more equitable futures for women, adolescents, and children with lasting benefits for all of society.

Learn more at **www.aliveandthrive.org**

FOUR THEMATIC PILLARS

Alive & Thrive provides strategic guidance and technical assistance to improve MIYCAN outcomes at both the global and national levels, working across sectors and using evidence to inform programming.

Our work encompasses four thematic areas of expertise:

Advocacy

Systems strengthening

Social and behavior change (SBC)

Strategic use of data

Our investments in digital technology span these thematic pillars, strengthening our overall approach to improving MIYCAN outcomes.

Advocacy Innovations

The effectiveness of MIYCAN interventions depends on enabling environments that include strong policies, effective governance and adequate investment. Technological innovations developed by Alive & Thrive have been used to build stronger enabling environments by tracking policy compliance and demonstrating the benefits of investing in nutrition. These innovations have been especially effective in facilitating advocacy to protect and promote breastfeeding around the world.

Mothers' Milk Tool
GLOBAL

The Mothers' Milk Tool makes visible mothers' economic contribution to the family and society through breastfeeding, which amounts globally to almost US$4 trillion every year. Data generated by the tool, which is suitable for incorporation in economic statistics such as Gross Domestic Product (GDP), quantifies the volume of breastmilk and the value of breastfeeding at the individual, national, regional, and global levels. When the economic value of breastfeeding is more visible to policymakers and societies, policymakers can make more informed decisions on resource allocation for breastfeeding support. Potential users of this tool, which was developed by Alive & Thrive in collaboration with the FHI Solutions Innovation Incubator and the Australian National University, include policymakers, influencers, project managers, researchers, national accountants, statisticians, caregivers, and other supporters of breastfeeding.

Green Feeding Tool
GLOBAL

Studies show that food production, including commercial formula milk production, is responsible for as much as **40% of greenhouse gas emissions.** The Green Feeding Tool calculates the carbon and water footprints of countries' different infant feeding practices. With a focus on the environmental cost of producing commercial formula milk, the new tool allows stakeholders to quantify the environmental impact of decreasing formula production by increasing support to women to breastfeed. The tool puts the power of data in the hands of policymakers, advocates, environmentalists, and climate change scientists, enabling them to evaluate the reduction in GHG emissions and water use by increased breastfeeding and reduced reliance on commercial milk formula. The tool was developed by FHI Solutions Innovation Incubator, the Australian National University and Alive & Thrive.

Vivid
GLOBAL

The Virtual Violations Detector (**VIVID**) is a digital assistant that scans websites, social media channels, and shopping platforms to identify violations of national and international product marketing regulations.

These marketing restrictions protect public health by restricting the degree to which corporations can market products such as alcohol, tobacco, commercial milk formula, feeding bottles, and pacifiers. Using key text and image recognition, VIVID can identify posts that may be violations and match those to specific provisions of the regulations.

VIVID is the result of a collaboration between Alive & Thrive and artificial intelligence (AI) company **Hekate** with support from the FHI Solutions Innovation Incubator. After the digital assistant has gathered the potential violations with its auto-detect function, the violations are then confirmed by a human advisor who can gather the information and share it with the government ministry charged with enforcing marketing regulations. In its first year alone, VIVID identified 4,032 violations of the national code of marketing of breastmilk substitutes (BMS) in Viet Nam and SUN CSA Viet Nam now has data concerning the violations of over 20 BMS brands that sell products in the country.

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The software has been so well received that the Ministry of Information and Communications in Viet Nam is now seeking to expand it to include other products such as unhealthy foods. VIVID is now integrated into the Corporate Accountability Tool & Accountability Hub (**CATCH**) and available for monitoring the International BMS Code in several English-speaking regions and countries including Australia, Hong Kong, Malaysia, New Zealand, Nigeria, the Philippines, Singapore, the UK, and the USA.

Systems Strengthening Innovations

Strong health systems are important not only for delivering high-quality nutrition services, but also to build resiliency in the face of increasing global health, climate and security threats that disrupt business as usual. Through ongoing technical support and capacity building, Alive & Thrive develops skills, tools, and monitoring systems that support effective program and service delivery and builds efficient linkages between facilities and the communities they serve.

Sahyog – Supportive Supervision App
INDIA

In India, the quality of social services provided by individual states varies widely. One of the biggest barriers to improving service quality is that frontline health workers do not receive adequate support to do their work, which lowers employee morale and motivation. To address these challenges, Alive & Thrive developed SAHYOG, an award-winning and simple Android app with three key functions: 1) Mentoring, supervisory support, and training for frontline health workers 2) A two-way communication system between supervisor and supervisee to identify and resolve service quality issues in real time 3) A mechanism that allows the supervisee to provide anonymous feedback on the support provided by their supervisor. The app empowers individual health workers with tailored support, provides a mechanism for holding supervisors accountable, and improves system efficiency by streamlining procedures. Alive & Thrive developed the app in close partnership with Indian state governments. The app currently operates within existing government infrastructure in Gujarat and Uttar Pradesh and supplies the government with critical data it can use to monitor and improve service provision. The app won an MIT Global Challenge award in 2022. A&T is currently exploring opportunities to expand use of the app within India and other A&T countries.

Investing In Child Nutrition E-Learning Platform
GLOBAL

Investing in Child Nutrition is a free e-learning course designed to provide guidance, skills, and practical information to health workers to promote, protect, and support breastfeeding and complementary feeding. The course, which includes videos, activities, and knowledge checks, is based on the World Health Organization's Combined Course on Growth Assessment and infant and young child feeding counseling (2012) and supplemental content from WHO, UNICEF, the Global Health Media Project, and the Raising Children Network (Australia). The course was updated in 2021 with content and resources on COVID-19 and breastfeeding. Alive & Thrive developed the course in partnership with UNICEF, experts from across the nutrition field, and with technical partner, Manta Ray Media. The course is available in English and Arabic and is accessible via UNICEF's Agora e-learning **platform**. A French version of the course is currently being developed.

E-Learning Platform Featuring Courses on Child and Maternal Health
CAMBODIA

In Cambodia, Alive & Thrive is providing technical assistance to the Ministry of Health to implement the National Health Workforce Development Plan (2022-2030), which includes strengthening the ministry's e-learning platform. COVID-19 led to disruptions in coaching and in-person training for health workers, and the Cambodian government is increasing its focus on e-learning to be more resilient in the face of future shocks. Working with other key partners, including UNFPA and the Clinton Health Access Initiative, Alive & Thrive supported the Government of Cambodia's National Maternal and Child Health Center to launch a **new platform** featuring courses on child and maternal health. As of March 2023, the system had 1,766 users, 90% of whom are midwives. Alive & Thrive is now developing modules on nutrition and breastfeeding, which will be included on the platform.

Consistent Compliance E-Register
BURKINA FASO

In Burkina Faso, health workers treat sick children using a strategy called integrated management of newborn and childhood illness (IMNCI), which is meant to provide sick children with holistic care. To help health workers comply with the IMNCI protocols and avoid diagnostic errors, Terre des Hommes and Burkina Faso's Ministry of Health partnered to build an electronic register (e-register) called the Registre Electronique de Consultation (REC) that health care providers can access on a tablet during sick child visits. However, even though improving nutrition for sick children is an important component of the IMNCI protocols, the REC was not initially directing health providers to consistently counsel caregivers on how to ensure their children remain well-nourished when they are ill. To address this gap, A&T provided technical support to develop an infant and young child feeding (IYCF) counseling module that could be integrated into the REC. Alive & Thrive and Terre des Hommes worked together to support the government to test the new IYCF counseling module in one region before including it in the REC used across the country. The REC and IYCF counseling module are now well-integrated in the health system in Burkina Faso.

Maternal, Infant, Young Child and Adolescent Nutrition (MIYCAN) eLearning Course
INDIA

The Maternal, Infant, Young Child and Adolescent Nutrition (MIYCAN) eLearning Course is designed to be completed within four months and consists of online lectures, videos, and additional reading resources. This course sensitizes participants on MIYCAN topics such as the importance of the first 1,000 days of life with specific emphasis on the critical importance of maternal nutrition, breastfeeding, complementary feeding, adolescent nutrition, health systems protocols and evidence-based approaches for quality MIYCAN programming as well as linkages with the Sustainable Development Goals. The 12-credit modular format is designed to be completed by medical graduates, nursing staff, undergraduate and postgraduate medical students, and public health professionals working in health systems and agencies in India. Eligible candidates can **apply** through the Indian Institute of Public Health Delhi and, as of January 2024, over 800 participants have completed the course. The Trained Nurses Association of India has adapted and will soon roll out the course for member nurses to strengthen their knowledge and practices around MIYCAN, and future adaptation of the course for practitioners of alternate medicine systems is expected.

Social Behaviour Change Innovations

Effective social and behavior change (SBC) programming fosters positive change in MIYCAN behaviors at the individual and community levels. Alive & Thrive's SBC approach is built on evidence-based principles of behavioral science, human-centered design, and social marketing. Technology facilitates direct engagement with targeted audiences regardless of distance, allowing the delivery of cost-effective MIYCAN-related counseling and education.

Momby
VIET NAM

Momby (a portmanteau of "Mommy" and "Baby") is an AI-based mobile app, founded by a female Viet Nam based software engineer. With an integrated virtual assistant called Doti, Momby complements MIYCAN counseling from healthcare workers by providing expecting and new parents with essential, affordable, and timely information to keep themselves and their babies healthy. Momby sources its materials from maternal health and nutrition experts to provide educational information on topics such as fetal development, bonding practices, essential newborn care, and breastfeeding. Users can also use the app to make healthcare appointments and ask questions in real time. The app has been used for workplace nutrition activities and features a version for fathers as well. Just one year after its official launch, Momby had 22,000 users, with 1,000 new users recorded monthly. Efforts are underway to expand this digital solution to develop an AI-powered voicebot providing personalized communication services on breastfeeding and nutrition for mothers and families in Uttar Pradesh, India.

May May Cho Cho
MYANMAR

May May Cho Cho ("Mommy's Milk" in Burmese) is an online breastfeeding support community that Alive & Thrive helped establish in Myanmar. Developed and operated by a local group of nutritionists, nurses, and lactation consultants collectively called **Healthy and Happy Families (HHF)**, the Mommy's Milk community provides reliable information and affordable nutrition support services to help families continue breastfeeding and adopt recommended complementary feeding practices during disruptive events such as the pandemic and the country's ongoing humanitarian emergency. Basic health services have been severely diminished due to ongoing conflict, a collapsed health system, and rolling power outages, so HHF's online community and Facebook page have provided families with much-needed support. Since its launch in February 2021, the Mommy's Milk group has grown to over 10,000 members. With support from Alive & Thrive, HHF has also provided capacity building to 15 breastfeeding mother champions, who help to moderate content in the online group and provide offline support directly to caregivers. HHF's work in Myanmar is strengthened by **ongoing experience and learning exchange** with **Betibuti**, another successful online breastfeeding social network in Viet Nam and partner of Alive & Thrive.

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WhatsApp Mothers Groups
NIGERIA

In Lagos state, Nigeria, Alive & Thrive used WhatsApp to engage mothers in discussion of breastfeeding challenges and opportunities for support as one part of a broader program to promote breastfeeding among mothers and their families. After enrolling women participating in ANC sessions at selected private health facilities, A&T created more than 40 virtual groups led by trained mentors and coaches who anchored group discussions. The WhatsApp groups allow for deeper discussions on breastfeeding and reinforce exclusive breastfeeding messages among mothers, especially since healthcare workers are pressed for time during routine counseling sessions. WhatsApp has also proven to be a low- cost intervention approach and had increased utility during the COVID-19 pandemic, when facility visits were restricted. The WhatsApp platform also presents a safe space for robust interactions on related IYCF subject matters among beneficiaries.

Innovations in the Strategic Use of Data

The facilitation of regular national and sub-national data review and improved data visualization strengthens government accountability and capacity. Digital technology allows for more efficient and accurate data collection, analysis and dissemination, and often provides policymakers and implementers with real-time information. Alive & Thrive works with national, regional, and district-level health directorates to improve the quality and utilization of routine MIYCAN data.

Growth Monitoring and Promotion App
BANGLADESH

Although the Government of Bangladesh has long identified growth monitoring and promotion (GMP) as a priority activity in the National Nutrition Services Operational Plan, GMP has not yet been successfully scaled. Paper-based growth tracking is major barrier to effective GMP and remains a weakness of current nutrition services. Working under the direction of the Government of Bangladesh, Alive & Thrive partnered with mPower, to build an app that allows health workers and caregivers to monitor a child's growth over time. The app includes features to support service provision (e.g., digital registration of children, classification of children by nutritional status, prompting of age-specific nutrition counseling messages), and the ability to engage with caregivers (e.g., sending text messages and voice recordings to caregivers and reminder messages for GMP services). Using this technology, supervisors and managers at multiple levels have synchronized access to service provision data for better decision making. After successful completion of the pilot testing, Alive & Thrive handed over the app to the Government of Bangladesh, which now runs and maintains it.

Birthing Experience Survey Tool
SOUTHEAST ASIA

The Birthing Experience Survey Tool is a digital user feedback solution involving a quarterly mobile phone survey of mothers who recently gave birth in a **Centers of Excellence for Breastfeeding** hospital. The phone survey asks mothers about their experiences in the hospital, generating data that managers then use to monitor the implementation of early essential newborn care and breastfeeding policies and services. Managers can then quickly act to ensure compliance with quality criteria. The **Birthing Experience Survey Tool**, which has been scaled up to 1,200 hospitals in Viet Nam, is now managed by the Maternal and Child Health Department of the Ministry of Health. Data can be disaggregated by maternal ethnicity, term/preterm births, and caesarean/vaginal birth to illuminate and address disparities. Similar systems are being developed in Laos and Cambodia through Alive & Thrive support. In Laos, the first round of the birthing experience survey was conducted in December 2022 with mothers giving birth in two **Breastfeeding Model Hospitals**. The scoring system for hospitals is currently being refined following a series of consultations between Alive & Thrive, Save the Children, the National Nutrition Center, and the Department of Healthcare and Rehabilitation. In Cambodia, Alive & Thrive will support a pilot of the system at the National Maternal and Child Health Center. Also in Cambodia, Alive & Thrive has worked with WHO and the Ministry of Health to integrate breastfeeding and newborn care indicators into the district health information system (DHIS2), ensuring that progress on service delivery and quality is tracked in provincial hospitals around the country.

Mobile Application for IYCF Data
NIGERIA

In Nigeria, Alive & Thrive piloted the use of mobile technology for data reporting to address health facilities' challenges with providing timely, high-quality IYCF data. The open-source District Health Information System (DHIS2) mobile application can be used on tablets or mobile phones and replaces the paper-based tools for reporting required indicators to the Government of Nigeria. In Kaduna and Lagos states, Alive & Thrive procured mobile phones, installed the DHIS2 application, and trained M&E focal people at selected private and public health facilities on the mobile application. Collecting IYCF indicators through this mobile application enabled timely reporting and allowed for ongoing monitoring during the COVID-19 pandemic, when movement was restricted. This technology has also been useful in security challenged locations where Alive & Thrive staff movement was restricted. Alive & Thrive is planning to expand the DHIS2 mobile application to additional project-support states in the coming years.

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