

# THE IMPACT DELIVERY PLAYBOOK

*How leading organizations are delivering better, more, and sustained impact with fewer resources*



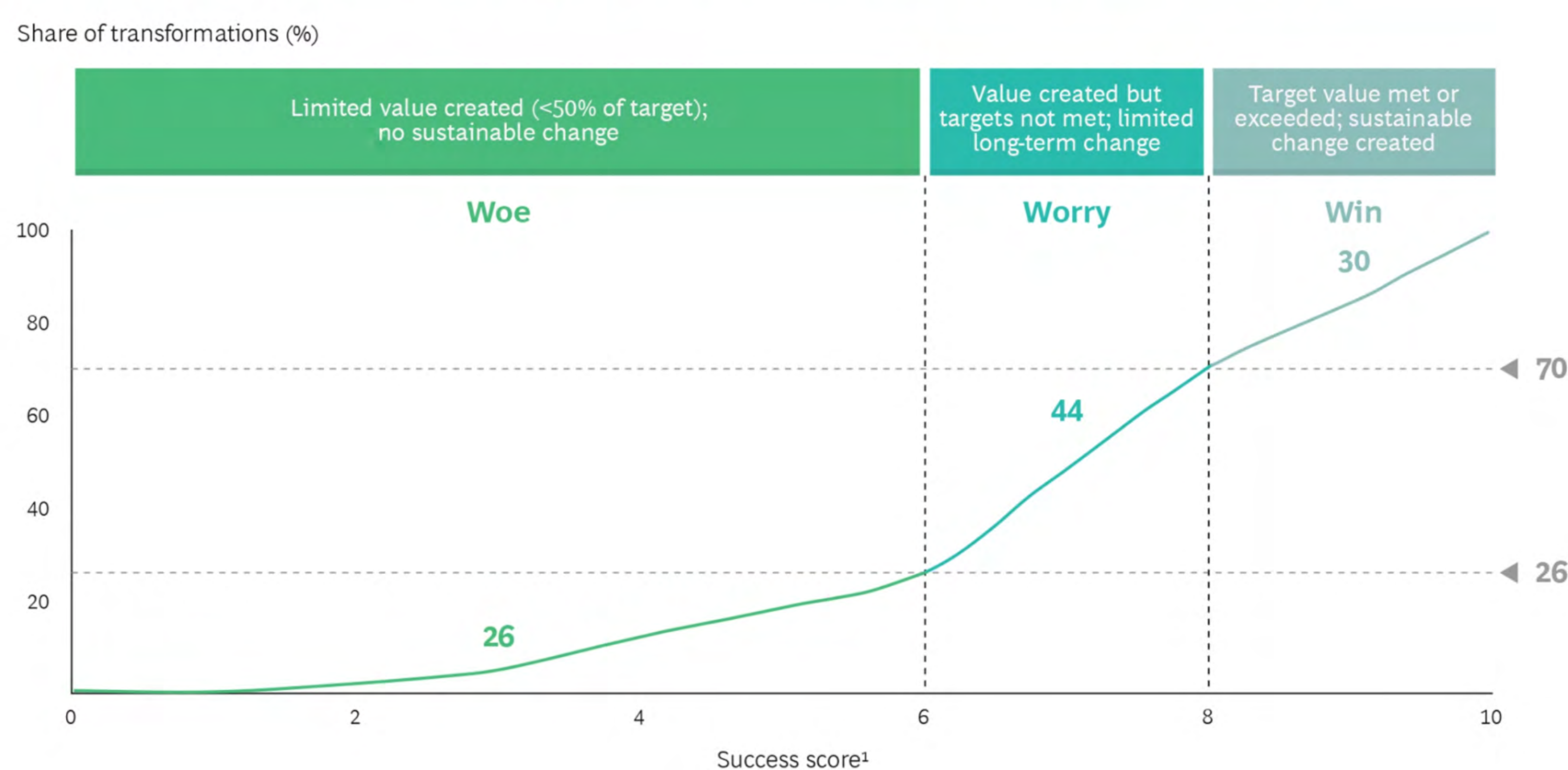
# Introduction

## THE PROBLEM

Social impact organizations and governments worldwide are under immense pressure to do more with less. We are confronting an array of complex, constantly-evolving pressures ranging from economic uncertainty, humanitarian crises, inflation, pandemics, and climate change. All of this means we need to deliver more services to more people. And, we often need to do it with flat or decreasing levels of funding.

Digital solutions have the potential to help us do more with less, to create more value for every dollar invested. But most digital transformations either fail outright, or fail to create this sustained value.

### Exhibit 1 - Only 30% of Digital Transformations Are Successful



BCG Analysis based on 895 transformations.

Learn more at <https://t.ly/Lph7o>

## THE SOLUTION

At Dimagi, we are changing this, with an approach we call Impact Delivery. Over the last 20 years, Dimagi has partnered with leading organizations and governments to help shape their frontline programs for long-term and growing impact. Impact Delivery is an approach to deploying digital solutions that maximizes value for money by meeting the pressing demands of today while building a foundation for tomorrow, inspired by the best practices of the most impactful organizations.

Maximize value for money by meeting the pressing demands of today while building a foundation for tomorrow



# Impact Delivery

## THE PILLARS OF IMPACT DELIVERY

Impact Delivery requires considering how you can leverage technology, human resources and processes to create **Better Impact, More Impact** and **Sustained Impact**.



**Better  
Impact**



**More  
Impact**



**Sustained  
Impact**

### BETTER IMPACT ✓

**Deliver better impact by creating better jobs for users and therefore better outcomes.**

Digital programs too often focus only on capturing data for administrative reporting, creating a burden on providers and clients. But digital solutions can and must be designed to also improve and deepen the impact delivered by frontline providers. With Impact Delivery, we can improve the jobs of our users with robust job aids complete with decision support to ensure best practices are followed, seamless referrals for continuity of care, multimedia content for top notch training and automated bi-directional messaging for client communication. All of this **enables teams to deliver better services, and still capture the data needed for reporting.**

## Questions to ask:

In order to shift to an Impact Delivery approach, we recommend thinking through these questions:

### TECHNOLOGY

- Where will I save money through this technical investment and can I quantify it to external stakeholders?
- Can I articulate the tangible improvements in service delivery impact with this technology investment?
- Will deployment of this technology make our workforces' jobs better? Are we creating extra administrative burden? If asked, will our users agree this technology is improving their jobs? Can we set explicit goals and measure this during the implementation?
- Do we have the capabilities we need in our technology choice to both improve service delivery and collect all necessary administrative data within our ecosystem?

### PEOPLE

- Can I set up a team or person responsible for owning both successful implementation for administration requirements as well as meeting defined success criteria for better impact?
- Can I ensure that the voices of the users of our technology solutions are heard in our approach, and that this input is consistent and the feedback loop is closed?

### PROCESSES

- Can I consistently measure the success of my Impact Delivery against clear and shared objectives across all key stakeholders?
- Do we have sufficient buy-in on the definition of success to regularly review and prioritize against our shared objectives?
- Do we have a roadmap that creates the right value for each stakeholder on a schedule that creates sufficient buy-in?



## MORE IMPACT 📈

### Deliver more impact by setting up digital to support multiple programs, user types, and integrations at scale.

Digital solutions are generally created with a focus on one specific project or program. This is often necessary for budgeting reasons and is also appropriate to create buy-in and demonstration of value. But if more impact over time is not created, it can leave you with dozens of standalone applications, each fading in value over time, that create administration burden and waste. With Impact Delivery, we can deliver on the immediate project requirements we face today, but with a foundation and clear vision that will allow us to seamlessly rollout new services, add support for additional types of users, connect to other systems our organization or partners use, and rapidly release new improvements to meet evolving requirements. And, we intentionally plan to support more impact with no or limited additional cost.

### Questions to ask:

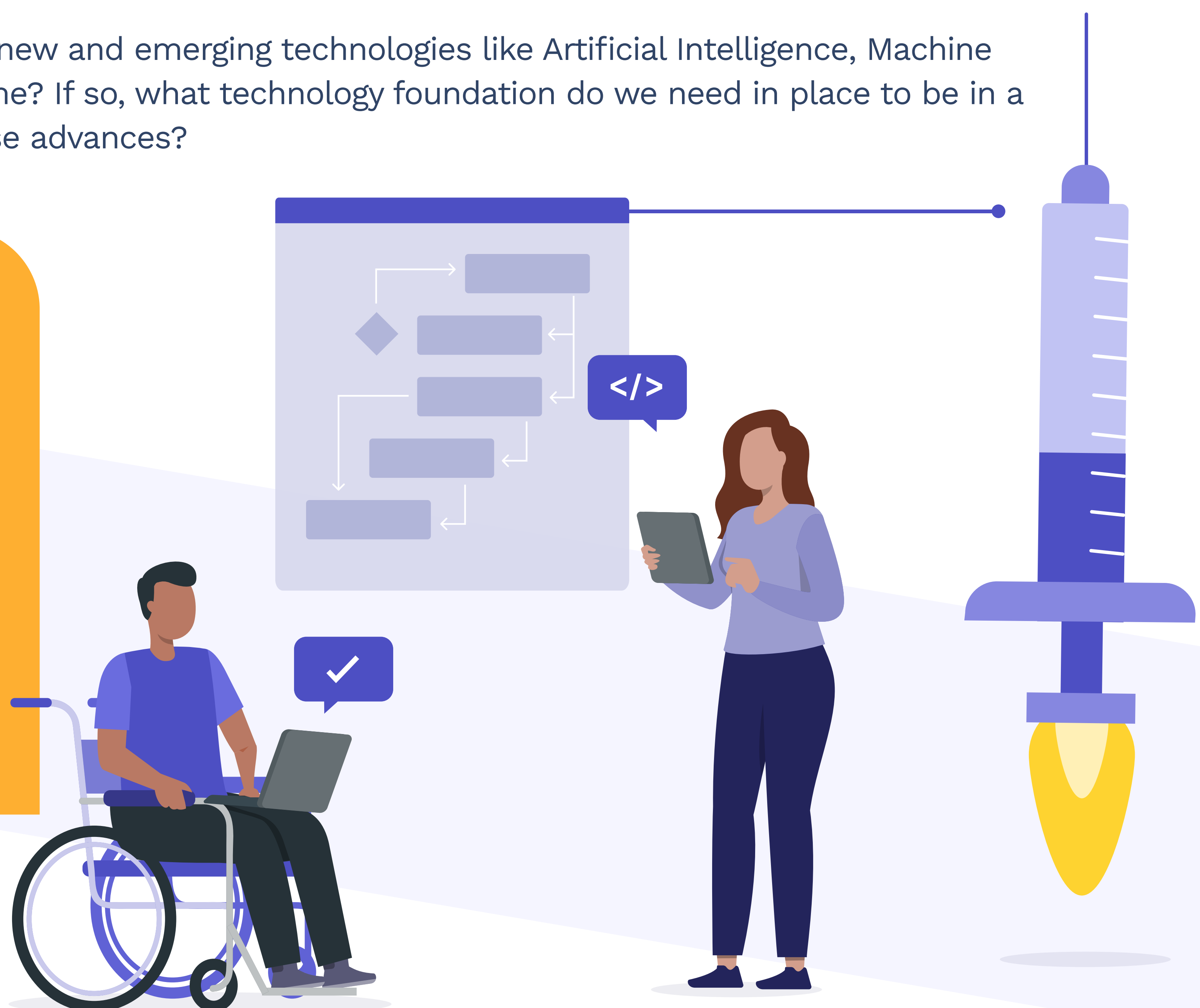
In order to shift to an Impact Delivery approach, we recommend thinking through these questions:

#### TECHNOLOGY

- Given our vision for digital transformation at our organization and our technology platforms, what are the next three use cases, programs and users that we can create more impact with?
- Do I already have tools that I've deployed for my teams that were supposed to lead to more impact? What are the pain points my users experience in using them? Can I get more value from my existing digital tools?
- What integrations are needed between tools to realize my vision? Are integrations a high-enough priority that I think we will succeed in completing them? If not, am I making realistic assumptions?
- Can I quantify the objective success metrics, and specific cost-savings from succeeding in supporting additional use cases?
- Do we want to take advantage of new and emerging technologies like Artificial Intelligence, Machine Learning, and Automation over time? If so, what technology foundation do we need in place to be in a position to take advantage of these advances?



**Deliver on the immediate project requirements you face today, but with a foundation that will allow you to seamlessly rollout new services, user types, integrations, and improvements**

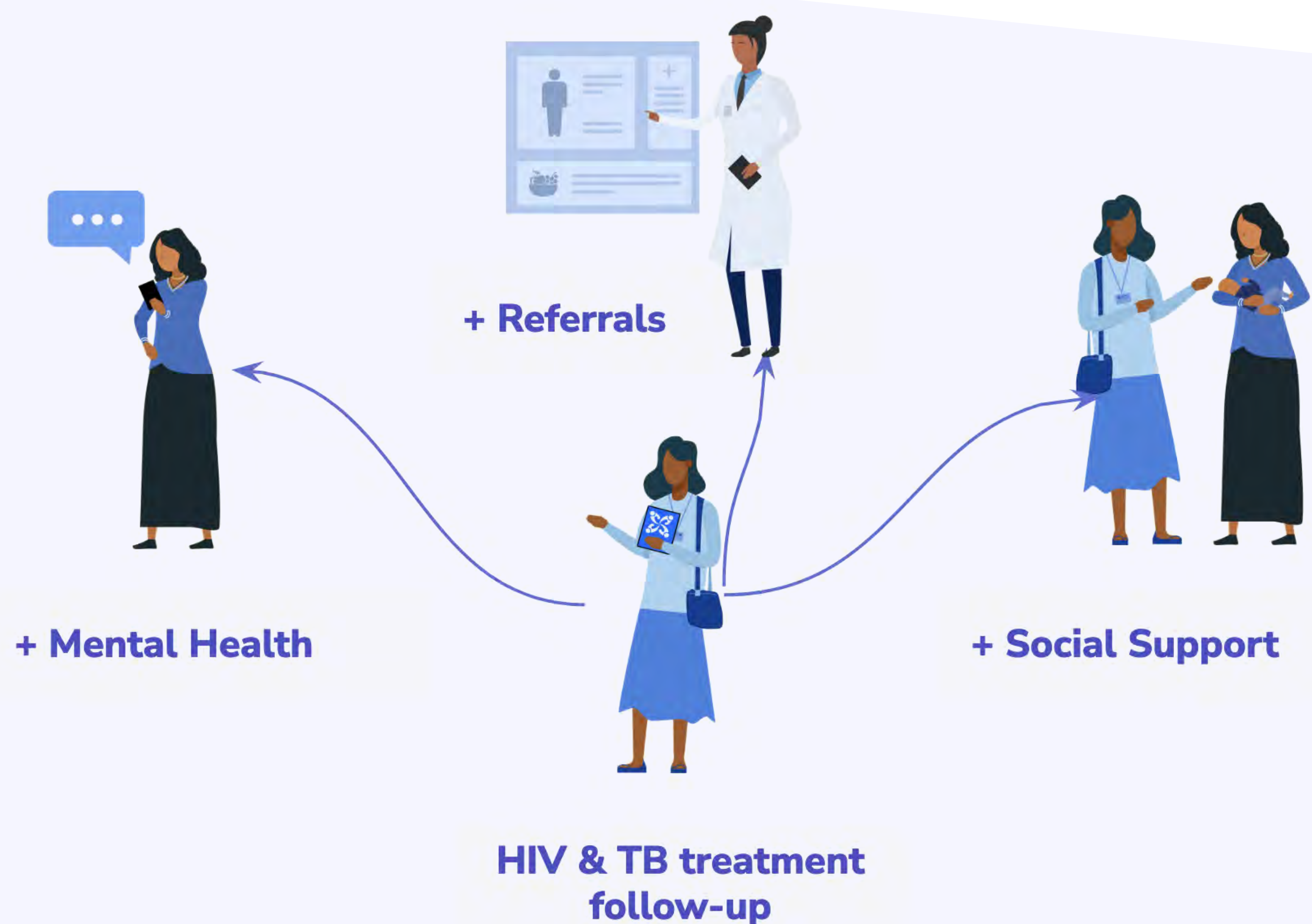


## PEOPLE

- What training and support does our workforce need to ensure they can best use the technology we have provided them? Are we confident in our approach and prioritization of this skill building?
- Do I have a plan to scale-up and scale-down a pipeline and staffing of resources to expand AND contract the usage and value of our existing digital platforms?

## PROCESSES

- Do I have clear success metrics and aligned expectations on how additional use cases should be enabled and come online?
- Can I clearly measure the scale-up of existing and new programs and do we have a team assigned to driving these measures with an agreed priority?
- How can funding from today's project grants support adding new use cases and user types over time?



## SUSTAINED IMPACT

### **Deliver sustained impact by working with a long-term technology partner on a robust platform.**

When programs invest in digital solutions, they often utilize time-limited funding with specific demands. But without being able to support the unpredictable emerging needs of the future, the solution's fit for our programs may be short lived, becoming a burden as the program changes. Sustaining impact requires knowing that the future is unknown and being prepared to meet the emerging needs of tomorrow. Dimagi's long-term partnership approach and robust but flexible platforms allow organizations to meet today's requirements and be ready for tomorrow's next challenge. Delivering impactful services in complex ecosystems requires partners, not vendors.

### *Questions to ask:*

In order to shift to an Impact Delivery approach, we recommend thinking through these questions:

#### TECHNOLOGY

- Do we have value metrics of impact vs. cost of our technology investments, and do we have a process to discontinue the technologies no longer providing enough value?
- Are we selecting technology partners that have demonstrated an ability to last through boom and bust funding cycles as an organization and with their clients?
- Do we have appropriate budget and skill to handle known recurring needs, such as privacy and security incidents or audits that will inevitably arise?
- Do our technology tools include robust APIs to ensure seamless data exchange across tools using the standards we plan to adopt as well as custom approaches with new or legacy systems?

#### PEOPLE

- Is there a person or team within my organization who is accountable for ensuring that we are getting the most impact from our digital investments over time, beyond the initial funding?
- Do I have the right pipeline of talent to be able to sustain our Impact Delivery efforts for the long term?



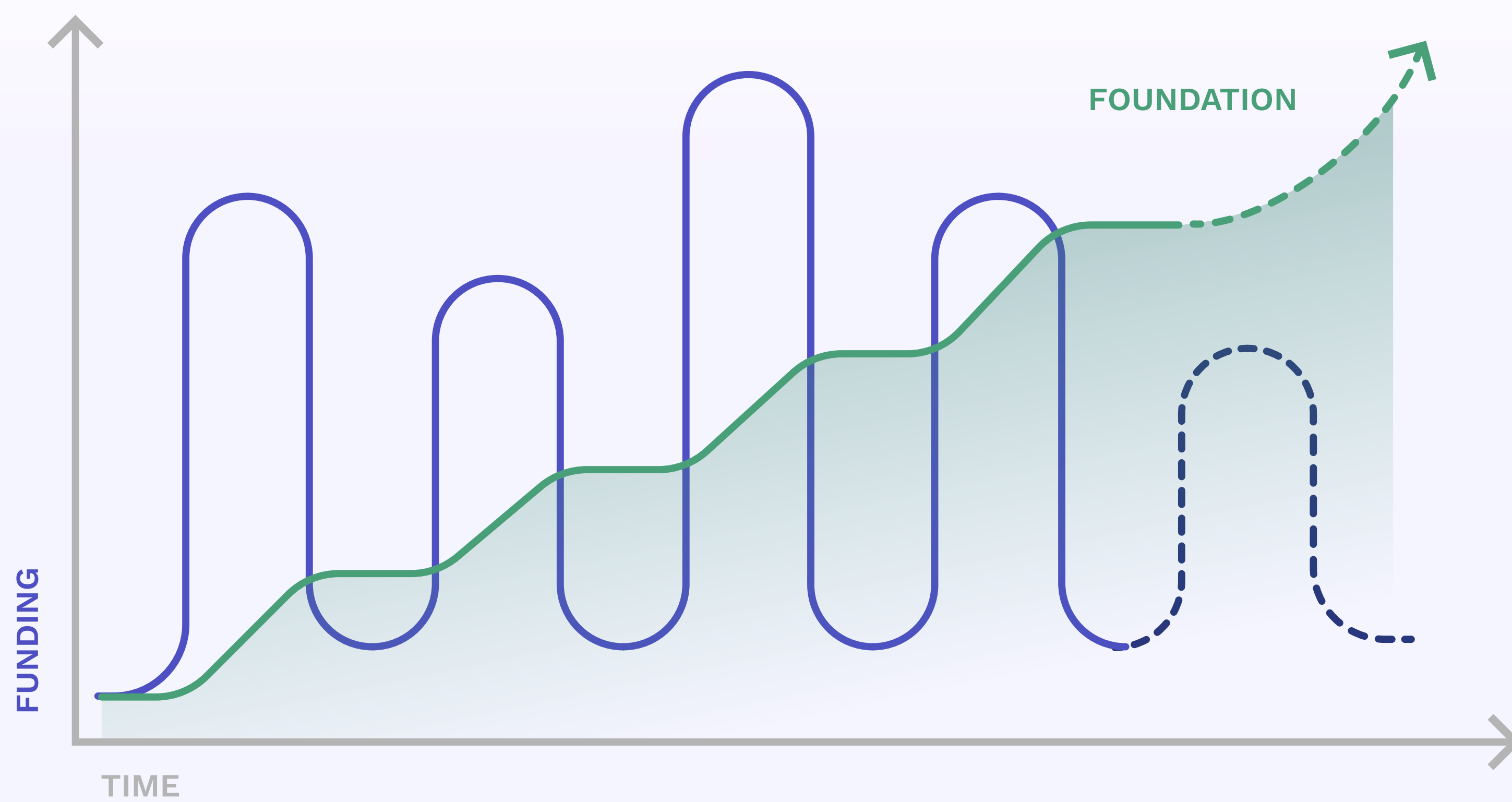
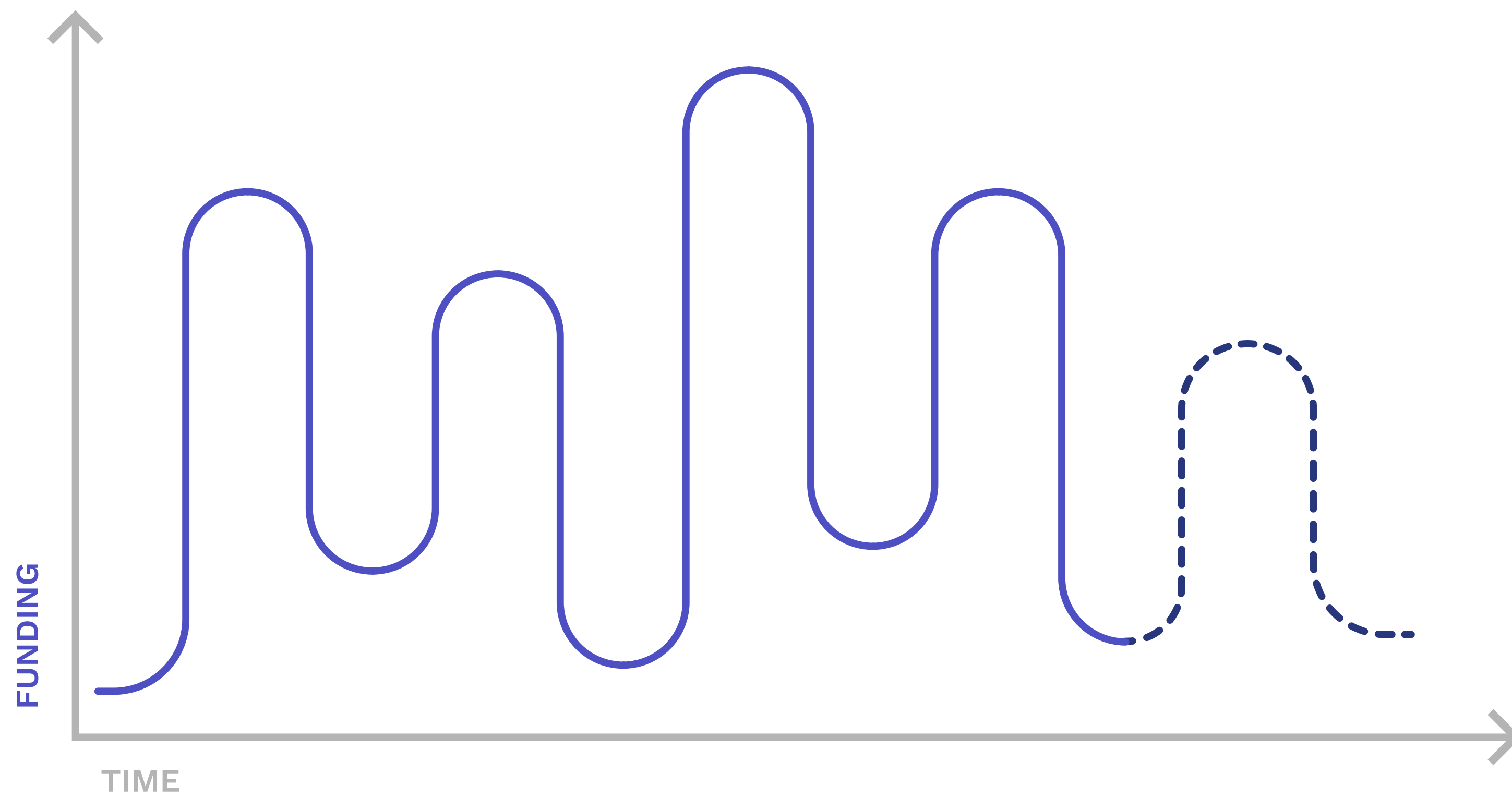
**Sustaining impact requires knowing that the future is unknown and being prepared to meet the emerging needs of tomorrow.**



# SOLID FOUNDATION

## PROCESSES

- Do we have a clear long term vision of success for our digitization efforts and can that directly support prioritization.
- What investment and ongoing expenses do we need to enable us to bring our long-term Impact Delivery approach to life? Is the decision making process to make these budget decisions clear and is there appropriate time allocated to make sure decision makers have the information they need?



Despite boom and bust funding cycles, with Impact Delivery you can build a foundation for long term impact.



# How is this different?

from the status quo in digital for development

What we have to do  
(The old way)

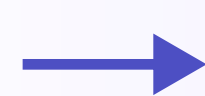
What we could do  
(The Impact Delivery way)

**Digitizing programs:** Moving programs as they are today (largely paper-based) to digital, focused on collecting administrative data.



**Digital transformation of programs:** For the same investment, transform a program with digital solutions that can unlock better jobs for frontline providers, enable high value-for-money services, and still get all the administrative data needed back to key decision makers.

**Project mindset / Closed loop system:** Focus on launching new digital apps for specific uses but not growing beyond that. Investing in the set up and launch, and then seeing value trail off over time. Wasting valuable time getting it off the ground.



**Growth mindset / Continuous improvement:** Leverage an existing platform to launch a new use case. Focus on improving, adding more value and iterating over time with ongoing feedback loops.

**Limited, single-use case** apps.



Platform that can support **many use cases**.

Digital apps can **add burden** to already challenging Frontline Worker jobs.



Digital apps **make Frontline Worker jobs better**.

## What we have to do (The old way)

**Short term:** Thinking about how to pick and implement technology today to meet a short term need.

**Slow and cumbersome:** When we have a new need, build and launch an entirely new application.

Digital tools to address programmatic needs with a **focus on activity metrics** (launch, forms, active users, cases) and lack of accountability for overall outcomes.

**Monitoring Frontline Workers:** How can we get real-time insights and reporting on frontline activities at the last mile?

## What we could do (The Impact Delivery way)

**Short and Long-term:** Thinking about meeting today's needs and incorporating huge amounts of new value into existing programs that have been running for years.

**Quick and agile:** When we have a new need, use our existing foundation to quickly launch a new use case.

Digital strategy to accelerate global well-being outcomes with a **focus on outcome measures.**

**Supporting Frontline Workers:** Transforming frontline work to first class work - supported, paid, trained etc.



# Case Studies

## IMPACT DELIVERY IN ACTION



### Ministry of Health and Terre des hommes, Burkina Faso

Leveraging an Existing Digital Platform to Seamlessly Support Pandemic Response at Scale

In response to Burkina Faso's struggle with child health and mortality, the country, in partnership with Swiss nonprofit Terre des hommes, adopted the Integrated e-Diagnostic Approach (IeDA), a digitized diagnostic tool that effectively improved adherence to IMCI guidelines by 97%, offered economic benefits, and demonstrated flexibility and scalability by addressing various health concerns.

[READ MORE →](#)



### MHP Salud, United States

MHP Salud Revolutionizes Community Health Work with Digital Tools

MHP Salud, a leader in community health services for underserved Hispanic and Latino communities in Texas and Florida since 1983, has successfully transitioned from paper-based data collection to a comprehensive digital platform, working closely with Dimagi since 2011. The integration of the CommCare platform not only improved the efficiency and quality of services offered by Community Health Workers but also empowered them with real-time insights into their impact.

[READ MORE →](#)



### Tula Salud, Guatemala

Tackling Health Crises in Rural Guatemala: A Digital Revolution for Frontline Health Workers

An innovative digital health platform built on CommCare and other apps strengthens primary healthcare in rural Guatemala to address reproductive and maternal health and child malnutrition, benefiting over 3.7 million people in Guatemala.

[READ MORE →](#)



Courtesy of MoH, Burkina Faso and  
Terre des Hommes

# Ministry of Health and Terre des Hommes, Burkina Faso

## Leveraging an Existing Digital Platform to Seamlessly Support Pandemic Response at Scale

*Burkina Faso's Impact Delivery approach enables agile response, improved adherence to health guidelines, and cost savings*

In response to Burkina Faso's struggle with child health and mortality, the country, in partnership with Swiss nonprofit Terre des hommes, adopted the Integrated e-Diagnostic Approach (leDA), a digitized diagnostic tool that effectively improved adherence to IMCI guidelines by 97%, offered economic benefits, and demonstrated flexibility and scalability by addressing various health concerns.

Through this case study, you'll see how Burkina Faso's approach to digital transformation of its health service delivery embodies Impact Delivery and what that means for your organization.

*The following is distilled from an [Exemplars in Global Health case study of Burkina Faso's use of CommCare](#).*

## THE PROBLEM

Burkina Faso needed to improve the health of children under five and reduce child mortality. In 2003, Burkina Faso's Ministry of Health (MOH) introduced the Integrated Management of Childhood Illnesses (IMCI) strategy, a systematic approach to diagnosis and community health practices in low resource settings devised by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). But ten years later, it became clear the strategy had not taken hold: only 22 percent of nurses at primary healthcare facilities had been trained in IMCI and only 15 percent of children were being correctly classified. The failure was due in large part to a number of factors spanning processes, people and technology: poor training, personnel shortages, low literacy, and burdensome paper-based reporting.

## THE SOLUTION

To improve adherence to the IMCI guidelines and therefore child health, the MOH and Swiss nonprofit Terre des hommes (Tdh) launched a pilot project in 2010 to digitize the cumbersome paper protocols at 39 Primary Health Care facilities using a custom web-based app for laptops. The project scaled up this effort until they could collect enough evidence of improved health outcomes and quality of care. At that point, the MOH began investing in bringing the app to national scale, and in 2014, the app was redesigned for tablets on Dimagi's CommCare platform to reach the needed scale. The app built on CommCare is called the Integrated e-Diagnostic Approach (leDA).

## THE RESULTS

Research carried out by the London School of Hygiene and Tropical Medicine shows that nearly all (97%) health check-ups for children under five at Primary Health Care centers, using the leDA digital tool, followed the recommended IMCI guidelines. In fact, their adherence to these guidelines improved by 50%.

Moreover, a study into the economic effects suggested that using the leDA digital tool could save between \$830,000 and \$1.7 million every year. These savings come from reducing the amount of time spent training health workers and also by cutting down on the amount of paper used in these health centers.



Courtesy of MoH, Burkina Faso and  
Terre des Hommes

# 97%

health check-ups at PHC Centers  
followed the recommended IMCI guidelines

# \$830k - 1M

estimated potential savings **every year**

And beyond that, when COVID-19 hit, Burkina Faso was able to quickly modify the leDA app to support critical new COVID-19 workflows, introducing three new modules in a weekend, and within three weeks, deployed these updates nationwide.

## KEY PLAYS FROM BURKINA FASO'S IMPACT DELIVERY APPROACH



### Better Impact

#### **Design digital tools first and foremost as a job aid to make frontline jobs better**

- The CommCare-based leDA application provides health workers with enhanced decision support and supports them in following the IMCI protocols to reduce child mortality.

#### **Data collection is a secondary aim**

- Data collection was secondary to creating a digital job aid. Even so, the data created by use of this job aid allows health officials at the district and national levels to get access to near real-time data for decision making. Customizable and predictive dashboards help keep an eye on health data, analyze statistics, and guide health workers. They also allow for focused coaching and supervision for these health workers based on their specific needs.

#### **Integrate training, support and management systems**

- The main idea behind leDA is that a digital health app alone can't necessarily make people healthier. So, leDA integrates training, support, and management systems to enhance the overall quality of care. This approach aims to improve care holistically across every step of care delivery, not just one part of it.



< The four pillars of the Integrated e-Diagnostic Approach (leDA)  
 Source: Terre des hommes via [Exemplars in Global Health](#)



## More Impact

### Set up digital so we can add more use cases over time

- While leDA first aimed to ensure that health guidelines for children (IMCI protocols) were better followed, the ultimate goal was to enhance the quality of care at the Primary Health Care level. Since 2018, leDA has added new functionality within the app to help with areas such as maternal care, nutrition, malaria, tuberculosis, stock management, family planning, epidemiological surveillance, and other emerging health priorities.

### Roll out new functionalities quickly, when needed (like during COVID-19)

- Because it was already widely used by health workers, the Ministry of Health and Tdh could quickly adjust the leDA app for COVID-19. During a single weekend workshop, they created three new modules for dealing with the virus - screening and triage, counseling and community sensitization, and e-Learning for health workers. And in just three weeks, this timely new content was shared with health workers at the primary health care level all over the country. This rapid addition of entirely new capabilities deployed at scale, built entirely by the leDA team, shows how powerful the Impact Delivery approach can be - enabling existing platform capabilities for new use cases.

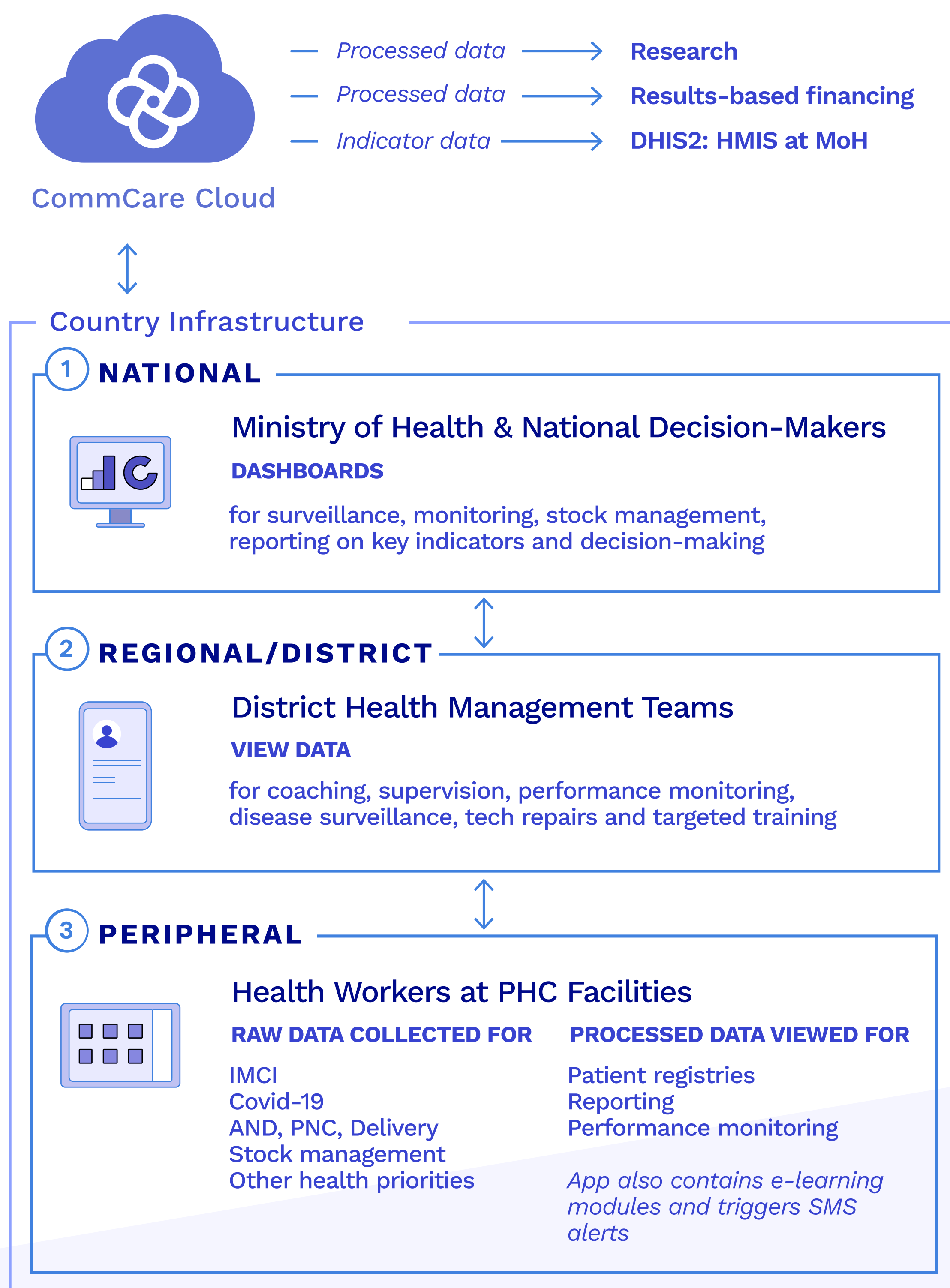
### Create value for users at every level of the health system

- At the Primary Health Care level, health workers now have access to patient registries and the full medical history of each patient - something they couldn't do with the old paper system. They can also check their performance by comparing it to that of their colleagues.
- At the district level, district health management teams can see the information collected during health visits on easy-to-understand dashboards. They can monitor overall health and track diseases. The system also records when and how fast health workers enter data. This helps district staff to offer the right kind of training and supervision to health workers based on their needs.

- At the national level, the system connects directly with the government’s national health information system (known as ENDOS, built on DHIS2). This means service delivery data from health centers can flow in real-time to the administrative information systems at the national level. This makes it easier to monitor and report on key health indicators.

**Set ourselves up for advanced work to add more impact building on a strong foundation**

- Starting in 2018, the Ministry of Health and Tdh, alongside the Cloudera Foundation and the University of Geneva, used artificial intelligence and machine learning to improve data handling. This made it easier to take body measurements, offer health workers immediate advice based on their past performance, and create smart dashboards. It also allowed them to predict future health trends for better disease monitoring.



Data flow and integration with the levels of Burkina Faso’s health system

Source: Terre des hommes via [Exemplars in Global Health](#)







## Sustained Impact

### **Make sure digital platforms are a national strategic priority**

- In Burkina Faso, the leDA app is a priority within the national digital health strategy. It is also fully integrated with Burkina Faso's health infrastructure, including automated reporting at the national level.

### **Build before there is an emergency**

- In Burkina Faso, having a robust foundation that can be swiftly adapted and put into action allowed us to respond promptly and efficiently to emergencies. Attempting to construct this digital groundwork during an emergency is extremely challenging and might even prove counterproductive in the midst of a crisis.

### **Ensure tools add value for health workers**

- Sustained use of the leDA app has been seen largely because of its value to health workers. It makes their daily work easier.

### **Generate more value over time with independent ability to maintain and modify digital tools**

- Because CommCare is a modular, no-code platform, the MOH and TdH are able to independently maintain and improve the app to address new requirements.





Courtesy of MHP Salud

## MHP Salud, United States

### MHP Salud Revolutionizes Community Health Work with Digital Tools

*By hacking project-based funding to take an Impact Delivery approach to digital, MHP Salud can provide high-quality services and expand into new programs.*

MHP Salud is a leader in community health services for underserved Hispanic and Latino communities in Texas and Florida since 1983. MHP Salud successfully transitioned from paper-based data collection to a comprehensive digital platform, working closely with Dimagi since 2011. The integration of the CommCare platform not only improved the efficiency and quality of services offered by Community Health Workers but also empowered them with real-time insights into their impact. Learn how their Impact Delivery approach has allowed them to get more value from digital investments and support incredible growth.

### THE PROBLEM

MHP Salud has a team of Community Health Workers (CHWs) who primarily work with underserved Hispanic and Latino communities in Texas and Florida to help increase access to health and social resources. In 2011, the organization needed to transition from paper-based data collection to a digital system to reduce the burden on their CHWs, improve data quality and enable easier measurement of impact. Since then their needs have evolved significantly as the organization has grown and changed:

- MHP Salud’s CHWs need a user-friendly, multi-lingual way to easily track their clients and understand who needs to be followed up with.
- CHW roles are not uniform, and MHP Salud needs to offer support across different program types for their workforce. Each CHW needs to be supported to deliver services and have client data that is relevant to the programs they are supporting. Some elements are consistent across programs (e.g. Social Determinants of Health), whereas others are specific to given program topics or populations (e.g. older adults).

## THE SOLUTION

MHP Salud partnered with Dimagi starting in 2011 to build out and improve on a digital foundation to support expanding and deepening its impact. They have created a suite of applications— one for each ongoing program — that leverage one central client registry.

- **Uniform Client Registry:** Sharing one client registry creates a uniform and streamlined client intake form. Clients do not need to complete an intake for each program they participate in, dramatically reducing administrative burden and improving client experience. It also ensures there is no duplication of client records.
- **Case Management and Workflow Support:** The app helps CHWs keep better track of their clients, guides them through workflow and follow-up, and allows them to reference information from previous follow-ups.
- **Care Coordination:** Case sharing allows the CHWs to share main information about the client, while hiding other private program-specific information from team members working on different programs.
- **Continuity of Care:** MHP Salud has access to easy longitudinal reporting on a client’s history, including how long they have been with the program, how many projects they’ve participated in, changes in key outcomes over time, and how many referrals or application assistance services they received across all projects.

## THE RESULTS

Thanks to MHP Salud’s thoughtful approach to Impact Delivery, leveraging the CommCare platform and integrations with other digital tools, the organization has been able to:

- Streamline CHW workflows for better efficiency, offering job aid tools that their CHWs like to use
- Provide easy to follow guidance for CHWs for an array of different programs that enable them to deliver better quality services
- Achieve “data democracy”, rolling out integrated dashboards for each CHW that allows them to understand their impact and progress to goals in real time
- In parallel with this Impact Delivery journey, MHP Salud has grown considerably - expanding beyond hiring and supporting their own staff of CHWs to do training and technical assistance for organizations nationally around best working with CHWs ([more information here](#))



Courtesy of MHP Salud

## KEY PLAYS FROM MHP SALUD'S IMPACT DELIVERY APPROACH



### Better Impact

#### **Design and rollout tech that is intuitive and supports the workflows of your CHWS and teams**

- Technology is just one part of a CHW's role - it should be easy and benefit their experience. MHP Salud invested in creating strong feedback loops for their CommCare users to ensure the job aids they provide make their jobs better and continually improve over time. And they built this into their organization structure by creating a CommCare team with rotating membership and CHW roles embedded on that team.

#### **Build buy-in by bringing teams along on the journey**

- Key to MHP Salud's digital transformation success, the organization has brought its teams along on the journey, explaining the why of what the organization is trying to do with each new tool and update. And they've been mindful of how they roll out technology - ensuring they offer adequate training and support, and - critically - the opportunity to give feedback.



## More Impact

### Leverage one platform to support a vast array of programs

- MHP Salud has successfully used one platform (CommCare) to enable all their varied programs, users and scenarios. By consolidating workflows onto one platform with one centralized client registry, they can offer a streamlined experience for their CHWs who may be supporting clients across varied programs and needs. And they can easily roll out new content, programs, or even support new types of users.

### Motivate users with visibility into their impact in their core job aid tool

- MHP Salud recently rolled out integrated Tableau dashboards for all users so they can see their impact in real time and be motivated to do more. They were able to do this using CommCare's built-in integration with [Tableau](#) (see more about [data integrations with CommCare](#)).

With CommCare, MHP Salud uses one system to create many custom applications for different programs





## Sustained Impact

### Commit to a long term platform and partner

MHP Salud started using CommCare in 2011 and kept investing in the same platform. You can see from their journey that they have learned and grown along the way.

- **2011:** MHP Salud started using CommCare – the goal was to **transition from paper forms to electronic data collection.**
- **2017:** MHP Salud 'rebooted' its CommCare structure to a single, unified app used by all community programs. This new app **incorporated case management** and other advanced features. For the first time, they were able to **track outcomes for program participants at multiple time points** and demonstrate changes in knowledge, behavior, and health outcomes over time.
- **2020:** MHP Salud established a "CommCare Team" structure composed of two Evaluation Team members and two CHWs. CHW CommCare Team members are instrumental in providing input about app changes, feedback about what is/isn't working well, helping to train new CHWs at MHP Salud on how to use CommCare, and supporting their peers with CommCare on an ongoing basis.
- **2022:** MHP Salud completed a CommCare restructure with support from Dimagi's Customer Success team to create a sustainable structure for long-term Impact Delivery. They used the opportunity to seek feedback across the organization and identify and implement a wide variety of improvements, with an emphasis on how CommCare could be modified to **enhance CHW workflow.**
- **2023:** MHP Salud rolled out a **CommCare/Tableau integration.** Today, as a result of this integration, all MHP Salud CHWs have their own personalized Tableau dashboards where they can monitor who they are serving and progress toward their goals. Further, managers are using Tableau dashboards for **real-time monitoring and analysis of CommCare data.**

### Build internal expertise and seek additional guidance when needed

- Along their journey, MHP Salud has built significant internal digital expertise on CommCare and their other platforms. They brought in Dimagi's Customer Success team to support major updates and overhauls to their platform when additional external support was needed.

### Leverage project-based funding to support ongoing service delivery

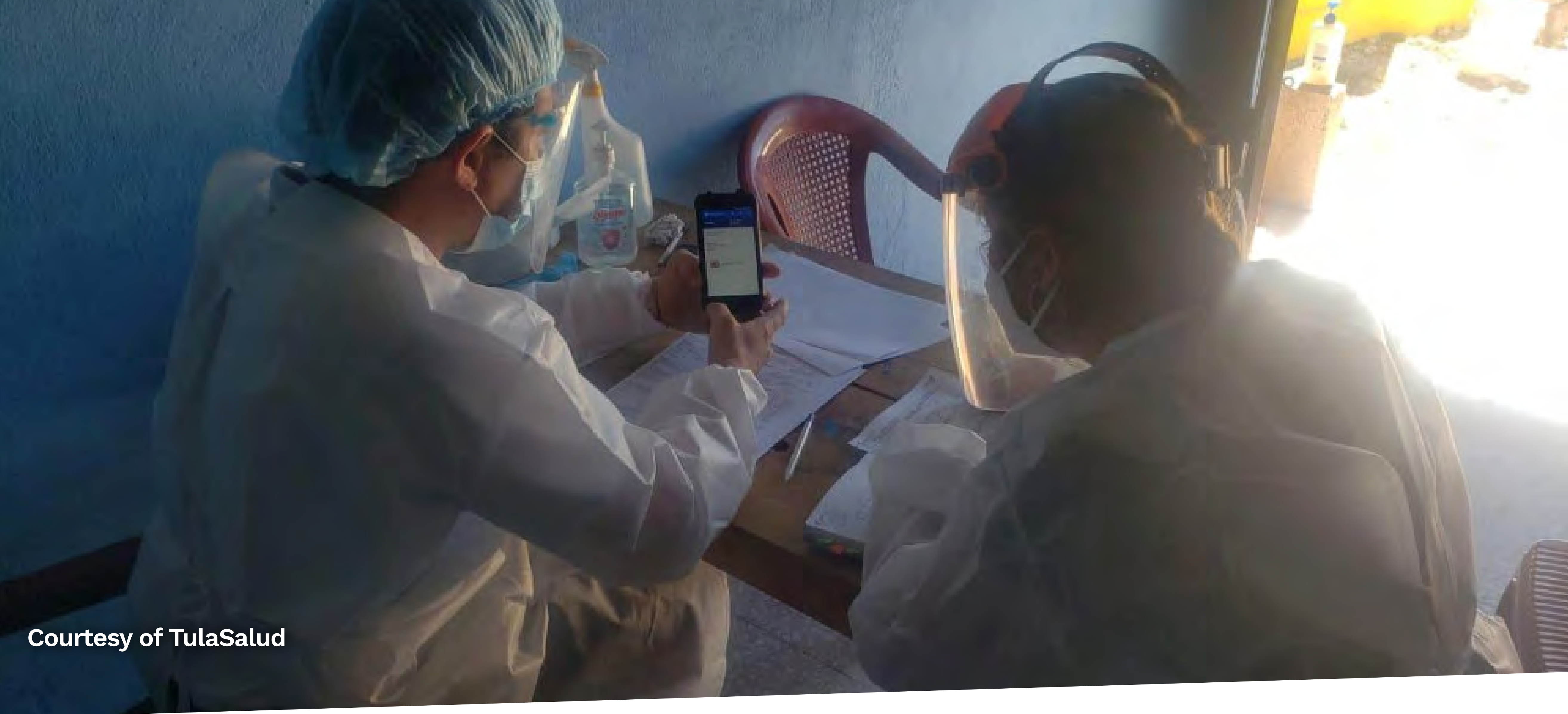
- MHP Salud is ensuring that the organization itself is sustainable by overcoming the limitations and realities of project based funding. Under guidance from its CEO, Dr. Maggie Dante, MHP Salud is creating a braided funding model so that while the organization may receive funding for a 3 year project, they can weave it together with other funding sources to support the same families and programs.

Check out MHP Salud's free CHW Resource Directory [here](#).



Hear the full story told by Dr. Maggie Dante and Rachel Udow on the **High-Impact Growth Podcast**





Courtesy of TulaSalud

# TulaSalud

## Tackling Health Crises in Rural Guatemala: A Digital Revolution for Frontline Health Workers

*TulaSalud partners with the Ministry of Health to improve coverage, quality of care and accountability through Impact Delivery*

An innovative digital health platform built on CommCare and other apps strengthens primary healthcare in rural Guatemala to address reproductive and maternal health and child malnutrition, benefiting over 3.7 million people in Guatemala.

### THE PROBLEM

Rural Guatemala suffers from a severe lack of formal health services and has one of the highest burdens of maternal mortality in the world. TulaSalud is focused on four regions of rural Guatemala with extremely high rates of maternal mortality and child malnutrition. Many of the pregnancies in these regions are considered high-risk, and the children who are born often suffer from malnutrition. TulaSalud's original goal was to build a workforce of trained, educated frontline health workers to close the gap in access to healthcare. But after training thousands of nurses, a new problem arose - these newly trained nurses would enter the health system stationed at rural health posts and find themselves disconnected from the larger health system, lacking access to training, supervision and visibility into the impact of their work. This was the start of TulaSalud's journey into digital health.

### THE SOLUTION

In order to reach a population of nearly 3.7 million people, more than 60% of whom live below the poverty line, TulaSalud needed a digital solution that could help healthcare workers in primary health better manage high-risk pregnancies and offer quality health services to mothers and children under the age of five. Early efforts to leverage a digital health platform to combat these issues proved challenging as the solution lacked healthcare-specific workflows, decision support and case management functionalities— all essential to TulaSalud's work.

TulaSalud turned to CommCare in 2012 to replace its first effort at deploying a digital health solution, building an application to strengthen the Ministry of Health's system of care. The CommCare-based application seamlessly connects various applications and platforms, providing Ministry of Health auxiliary nurses a job aid for service delivery, and nurses and supervisors a web-based dashboard for data-driven decision making. It improves access through an expanded network of app-enabled frontline workers and nurses, and increases accountability at all levels by the sharing of clinical and performance information with compliance supervisors, clinical supervisors and other service providers in the healthcare system – especially the Ministry of Health.

Since moving to CommCare, they have developed complementary workflows to combat malnutrition in children, strengthen sexual and reproductive health and rights for women and adolescent girls, support COVID-19 response, and enable data-driven community monitoring and response.

## THE RESULTS

- **Expanded Coverage:** The CommCare application is used by 4300 Ministry of Health healthcare workers across Guatemala, 3200 of which are auxiliary nurses based at health posts. This is roughly 30% of the country's primary health auxiliary nurses, located in the four regions with the worst maternal and child health outcomes. Using the application, nurses have registered 1.2 million cases including ~426,000 pregnancies and ~760,000 children under the age of five. The application has been used to register 4.7 million consultations, and 4 million phone calls.
- **Improved Quality of Care:** Due to the integrated health care delivery modules and immediate feedback and support offered by the app, auxiliary nurses spot risk factors in over 70% of pregnancies tracked, and flag alarm signals like high blood pressure in 5.5% of pregnancies. When an alarm signal is flagged, the auxiliary nurse receives an alert to refer the individual to the next level up in the health system for follow-up.
- **Increased Accountability and Visibility:** The Ministry of Health is able to track the performance of 4,300 frontline health workers and nurses, monitoring their actions and offering advice to improve their performance. And through data collected in CommCare, the Ministry of Health has visibility to important health indicators over time and can see what progress is being made and needs to be made. For example, they can track adolescent pregnancies, rates of acute and chronic malnutrition and much more.
- **Agility in Response to Emerging Threats:** With an existing platform in place, TulaSalud was able to quickly roll out COVID-19 functionality to support training, monitoring, mapping and follow-up on COVID cases. As the COVID pandemic wound down, they were also able to phase out this functionality.
- **High Cost-Benefit:** A USAID-funded cost-benefit analysis of the digital health system showed improved health outcomes, including a reduction of neonatal and infant deaths, in communities that have access to the digital health system. Results from the cost-benefit analysis showed substantial savings due to health emergencies averted with use of the digital health system.





# KEY PLAYS FROM TULASALUD'S IMPACT DELIVERY APPROACH



## Better Impact

### Support better jobs by integrating data collection and service delivery into one application

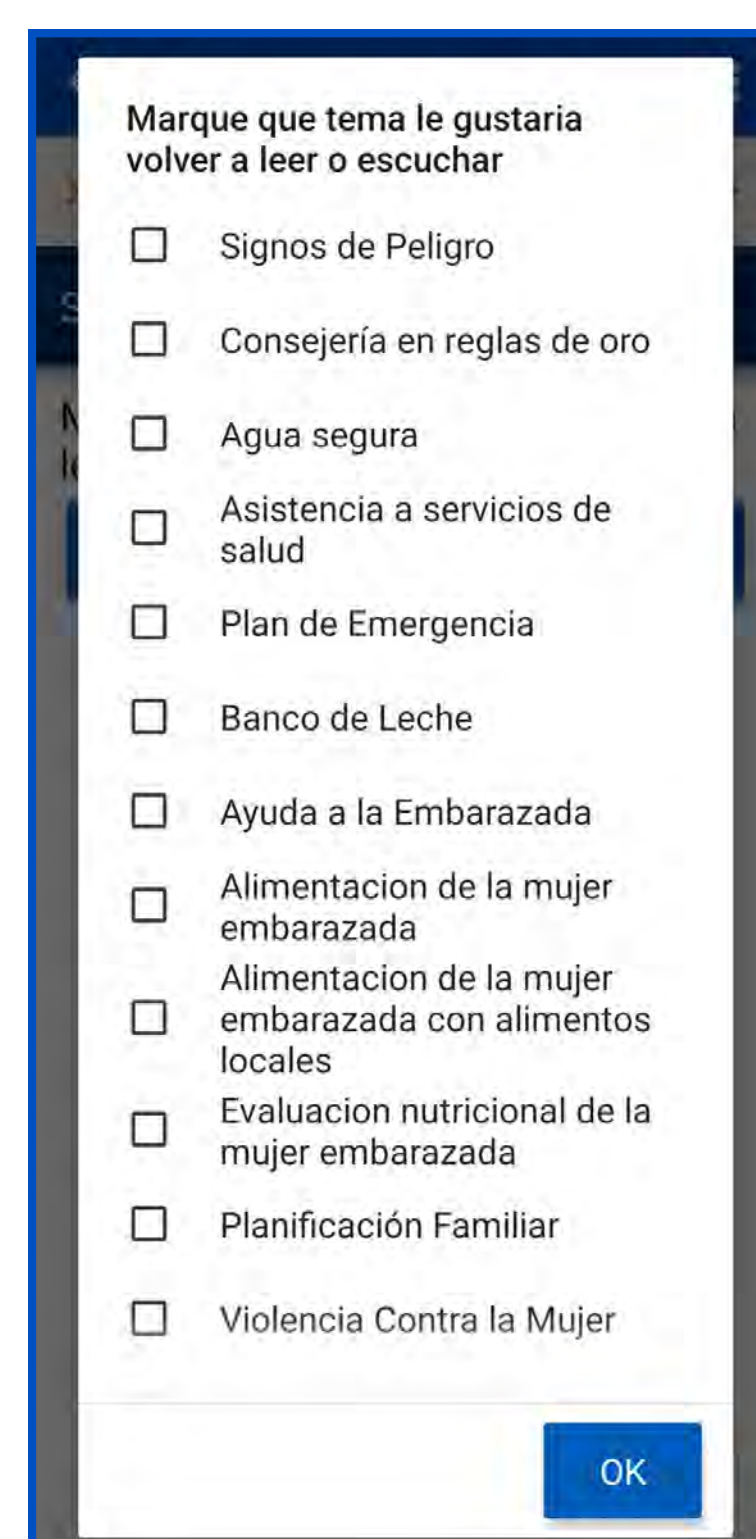
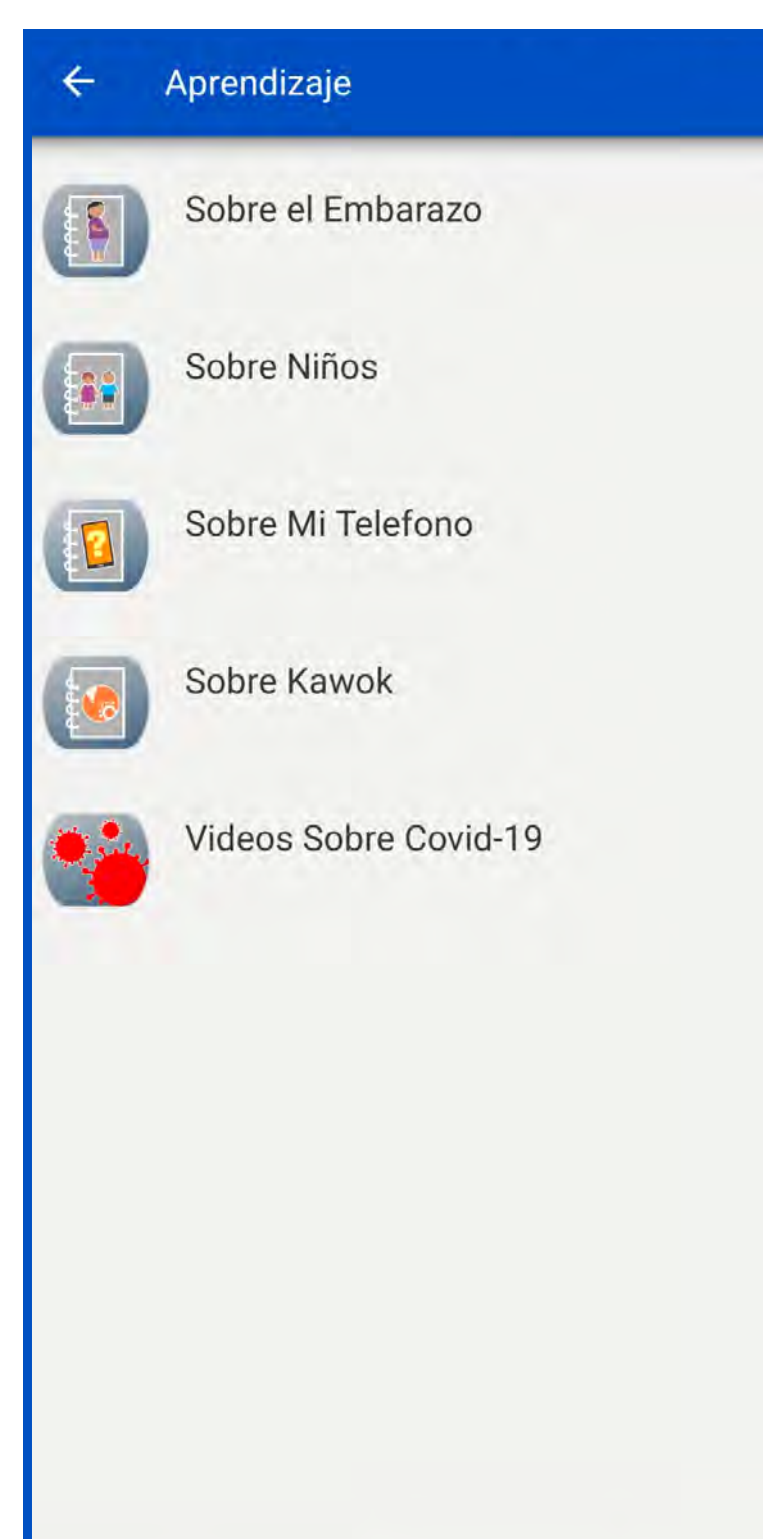
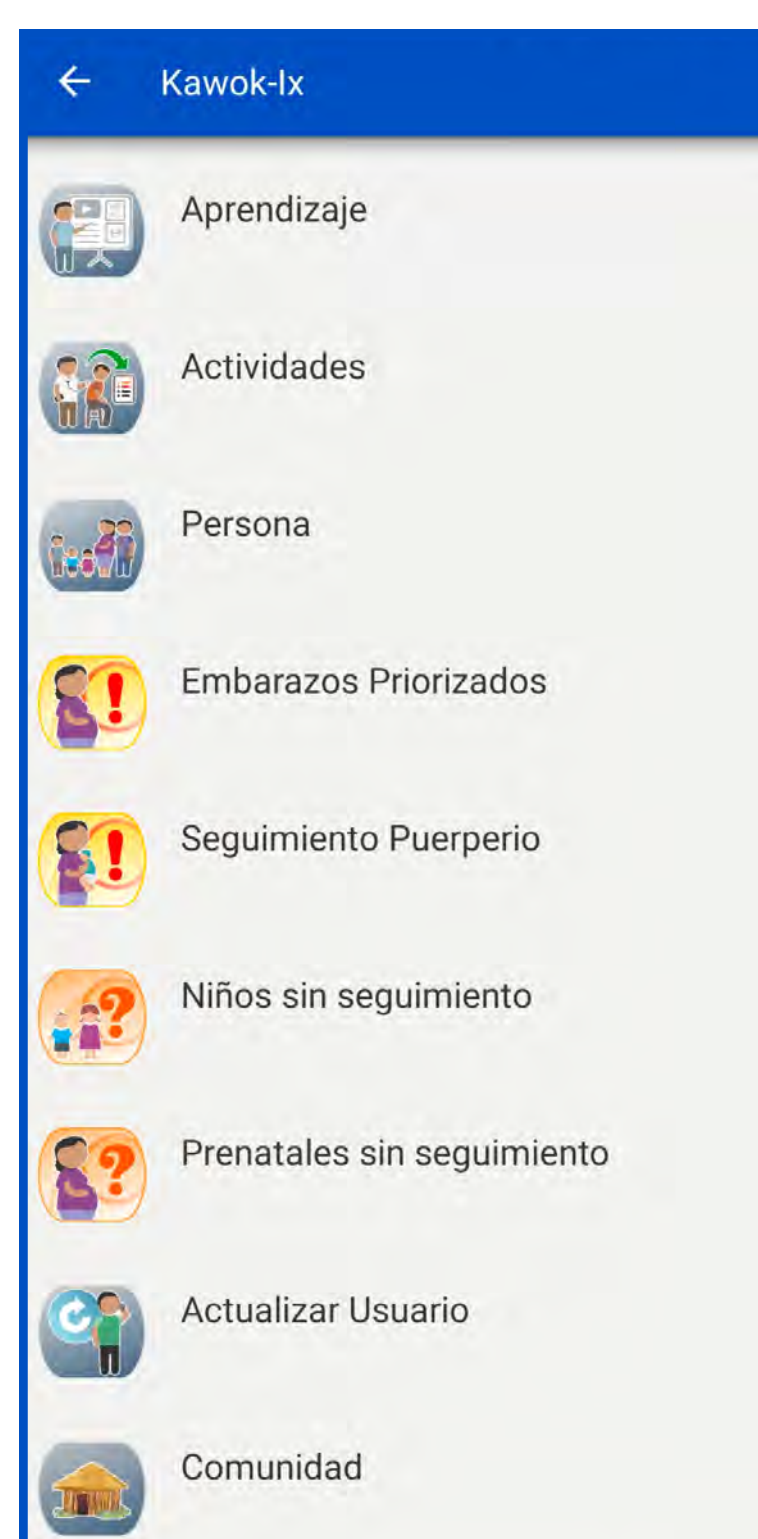
- TulaSalud uses one platform to both collect data and deliver better services. By combining these, they are able to streamline workflows and ensure a good experience for health workers using the application, while also allowing for data sharing and visibility which are important to enable better service delivery. As such, the CommCare application serves two primary functions:
  - A job aid for auxiliary nurses to improve their productivity and effectiveness at maternal and neonatal care and community surveying. The application offers offline access to health education and promotion videos translated in more than 20 Mayan languages, covering everything from pregnancy planning and risk signs, child malnutrition, breastfeeding, gender-based violence, and family planning.
  - A monitoring and evaluation platform for various levels of the health system, from evaluating the productivity of auxiliary nurses to tracking and monitoring individual high-risk and upcoming pregnancies. All of these data help program administrators prioritize limited health system resources in high-risk communities and regions.

### Leverage user feedback to inform application improvements

- With each major change in the CommCare application, TulaSalud has taken the time to conduct user research and interviews with auxiliary nurses to ensure the design best supports their workflows. There is often pressure from stakeholders to collect more data, but TulaSalud insists on keeping the application as simple and streamlined as possible, knowing that more fields to fill out creates more work for already overburdened health workers.

### Build data use into programs

- With long-term data available in CommCare, TulaSalud and the Ministry of Health are able to run monthly situation rooms to support case monitoring and intervention. On a regular basis, health workers gather to review indicators collected in CommCare, isolate emerging challenges, and create plans to follow up on high-risk and high priority cases.



Screenshots of service delivery workflows in TulaSalud's CommCare application



## More Impact

### Ensure data collected can be used to inform better decisions and higher quality service delivery by adding data visualization

- In order to better visualize incoming data, TulaSalud's IT team developed a suite of tools built on the CommCare platform that incorporates custom-built application development, reporting tools, and Google Maps.

### Test the application out with a smaller user base, then scale to more users and use cases once there has been success

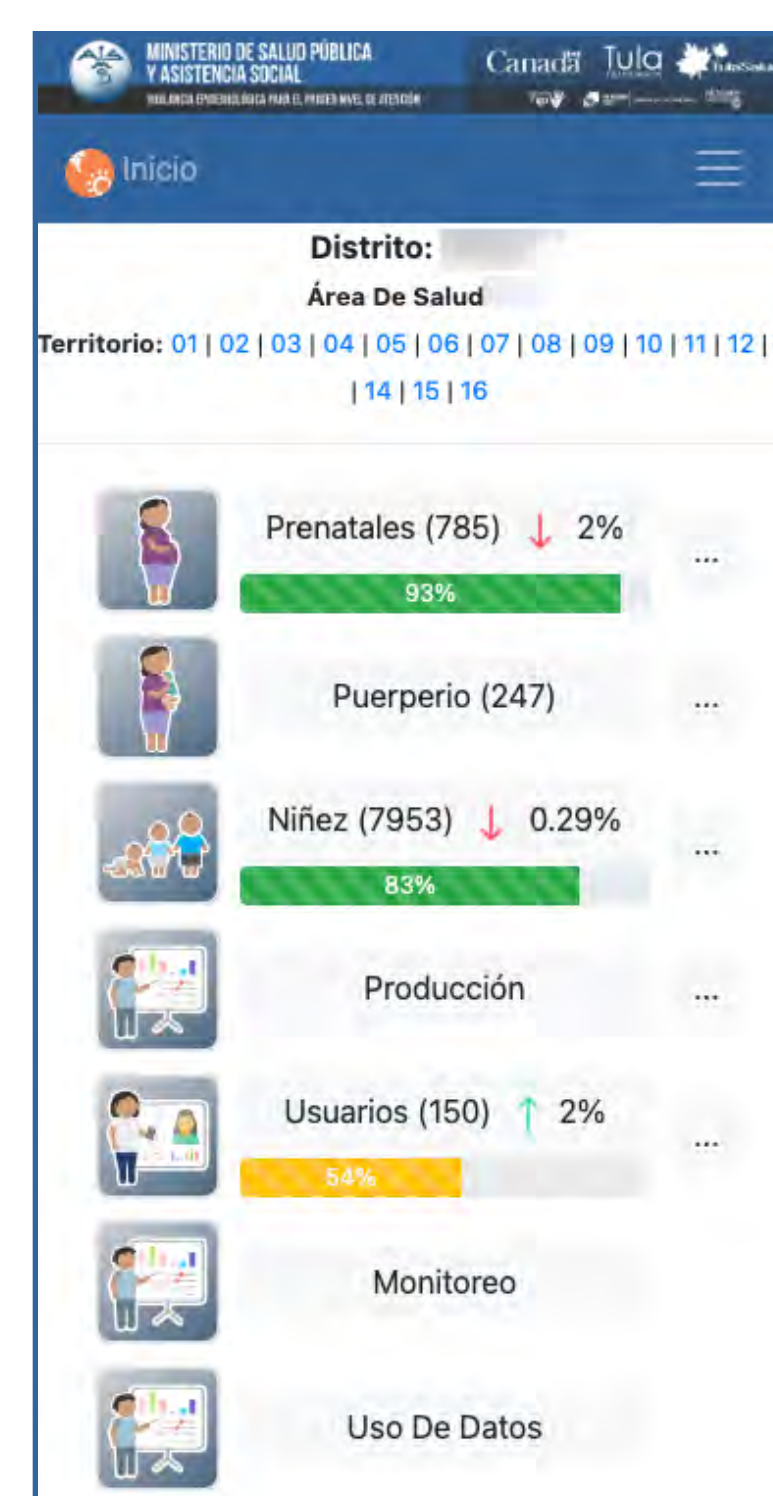
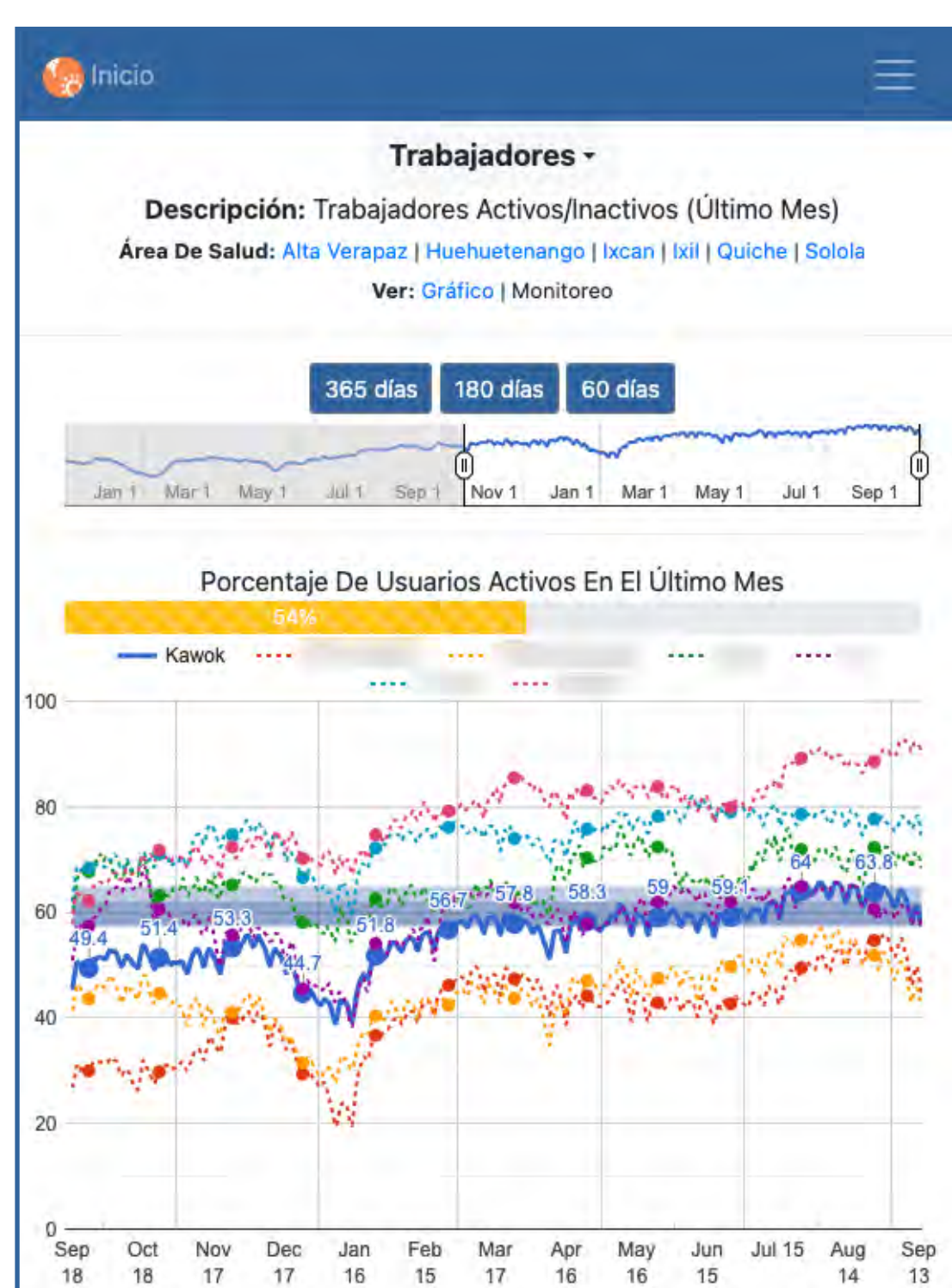
- After an effective pilot covering approximately one-third of a region, TulaSalud - with financial support from Global Affairs Canada - expanded their coverage to the entire region, introducing the application to more than 4,300 nurses, frontline workers, and their supervisors. Since then, additional features have been added including the modules for specific health crises, including COVID-19 and phone call tracking and support. To date, 4 million phone calls have been registered.

### Build in flexibility to scale up or scale down

- TulaSalud - with financial support from Global Affairs Canada - was able to quickly rollout functionality to support COVID-19 response when it was needed and they can scale back that effort and functionality as the pandemic winds down. Given that funding comes in boom or bust cycles, it's important to have that flexibility to expand and contract efforts.

### Embed training functionality in the digital system

- TulaSalud is able to roll out continuing education and training for new services directly within CommCare, allowing them to expand their impact over time. This was especially useful for COVID-19, updating guidelines on maternal and child health, and TulaSalud even offers training on the role of digital health tools.



With data collected in CommCare, TulaSalud and the Ministry of Health are able to track progress and improve service delivery



## Sustained Impact

### Choose a partner with long-term sustainability

- Before working with Dimagi and CommCare, TulaSalud ran a 6 month formal evaluation of various potential technology tools and partners. They wanted to understand if the solution offered met their needs and if the organization that built it would be around for the long-term, knowing that digital transformation is a long-term journey.

### Continue to invest in one platform to solve many needs over time

TulaSalud started using CommCare in 2012 and kept investing in the same platform. Along the way, TulaSalud continued to deepen its impact, expand its usage, and improve its functionality for long-term use.

- **2009:** Journey began with testing of an SMS system with 40 Frontline Workers.
- **2010:** Pilot expanded to 60 facilities and Symbian-based data collection tool rolled out.
- **2012:** Application rebuilt and launched on the CommCare platform. Coverage expanded to 198 Frontline Workers.
- **2013:** CommCare use expanded to 464 Frontline Workers. New website launched for district level nurses to review data collected.
- **2016:** CommCare application updated to support auxiliary nurses across Alta Verapaz.
- **2017 - 2018:** CommCare application improved and expanded to support new geographies—Quiche, Huehuetenango and Solola.
- **2019:** After consulting with users, epidemiologists, the Ministry of Health and related agencies, maternal and child health content strengthened in CommCare.
- **2020:** New content added to CommCare to support case management for COVID-19 aligned to the Ministry of Health. Support added for nutritional sweep campaigns to assess the nutritional status of the community with CommCare.
- **2023:** CommCare application is used to support monthly community situation rooms for community monitoring and intervention.
- **Next:** With funding from USAID, adding functionality to support inventory management for reproductive health medications.

By taking a long-term Impact Delivery approach and building a strong digital foundation, TulaSalud and the Ministry of Health are in a strong position to add new use cases and improve existing workflows to support better service delivery and expanded access to care over time.



Health workers in a District Situation Room review data collected in CommCare to prioritize follow-up with high-risk cases



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