



USAID
FROM THE AMERICAN PEOPLE



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EXECUTIVE SUMMARY

HIV treatment targeting made more efficient in Zimbabwe.¹ Flood response time improved in Indonesia. Three million young people in Nigeria engaged in policy.² Field reporting times reduced from one month to one day.³ Improved use of evidence in decision-making.⁴ Government clients more satisfied in Morocco and Liberia.^{5,6}

These improvements are just a few of the benefits that USAID missions and their partners have experienced by leveraging digital feedback loops. Feedback loops are when information about the effects of actions is used to adapt subsequent actions. Digital feedback loops use digital technology to support that process, often leveraging the speed and reach of digital technologies to collect feedback data.⁷ Incorporating feedback loops into development assistance is mandated by US law,⁸ and supported by USAID guidance.⁹ But even more importantly, digital feedback loops help USAID missions improve the effectiveness and efficiency of their activities.

Digital feedback loops provide access to information faster and more cheaply than ever before. As part of an adaptive management approach, digital feedback loops increase our ability to act on opportunities and respond to challenges. That in turn can improve outcomes and reduce the risk of waste and failure.

While digital feedback loops require attention to up-front design and systematic attention during implementation, they do not have to be expensive or time consuming to implement. This guide describes how digital feedback loops can support all four of USAID's Program Cycle Principles. It outlines ways that USAID mission staff can think through the implementation considerations and address the challenges associated

with digital feedback loops. It summarizes selected tools, resources, and case studies that illuminate how digital feedback loops can help mission staff improve their activities.

Digital feedback loops are both effective and feasible to implement using existing USAID processes, and in most cases, they can be implemented within existing program timetables and resource envelopes. This guide presents examples of how USAID missions are using digital feedback loops to improve their programs in agriculture, urban resilience, water and sanitation, and health.

This guide also provides seven worksheets to help you apply digital feedback loops to your own context. The first three worksheets are meant to be completed sequentially, as they build on each other. They help you reflect on how digital feedback loops can support the four Program Cycle Principles in your specific context. The last four worksheets form a separate sequential series to be completed after the first series. They help you dive deeper into how to build strong digital feedback loops. If you want even more support on how to use digital feedback loops, the guide presents further tools and resources at the end of each section.

Read on to see how you can make digital feedback loops work for you.

1 Schaefer, Merrick. USAID. (2018, November 14). Interview.

2 UNICEF. (n.d.). U-Report Nigeria. Retrieved October 12, 2018 from <https://nigeria.ureport.in/polls/>

3 Schaefer, Interview.

4 USAID. (2017). *Collaborating, Learning, and Adapting: An Analysis of what CLA Looks Like in Development Programming*. Retrieved from <https://usaidelearninglab.org/library/collaborating%2C-learning%2C-and-adapting-analysis-what-cla-looks-development-programming>

5 McManus, Leah. IntraHealth International. (2018, August 24). Interview

6 McDonough, Maggie. Souktel. (2018, September 11). Interview.

7 Ramalingam, Ben, et al. USAID. (2018). *Bridging the Gap: How Real-Time Data Can Contribute to Adaptive Management in International Development*. Retrieved from <https://www.usaid.gov/digital-development/rtd4am/briefing-paper>

8 U.S. Government Publishing Office. (2018). Consolidated Appropriations Act, 2018: Committee Print of the Committee on Appropriations, U.S. House Of Representatives on H.R. 1625.

9 USAID. (2018). *ADS Chapter 201: Program Cycle Operational Policy*. Retrieved from <https://www.usaid.gov/sites/default/files/documents/1870/201.pdf>



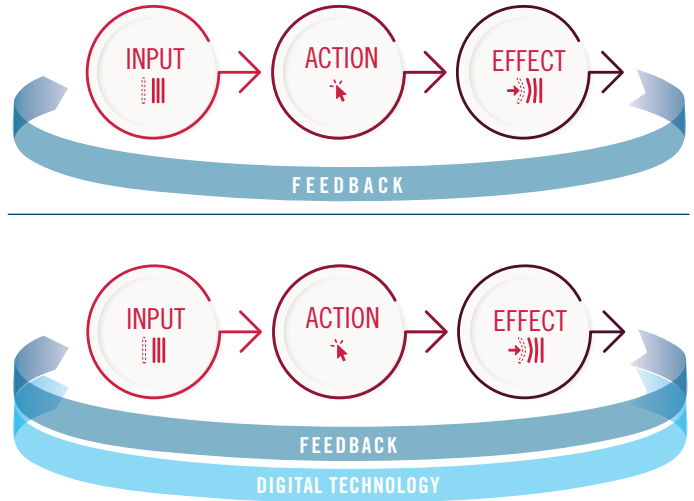
I. INTRODUCTION AND TERMINOLOGY

Feedback is simply information about what happens as a result of what you do. Using that information to adapt what you do or how you do it creates what is called a feedback loop.



A digital feedback loop uses digital technology at some stage of the feedback loop. This guide focuses on feedback loops that leverage digital technology to collect and share feedback data, which have huge potential. Digital technologies that have quickly been taken up by USAID missions and across the international development field for this purpose include mobile phones, tablet computers, and digital sensors.¹⁰

Using these definitions, there are many types of digital feedback loops. Digital feedback loops can be categorized based on whether the feedback data are objective or subjective, and whether the digital collection mechanism is passive or active.

Generally speaking, you'll want to gather objective data when focusing on decisions that require facts about the world. You'll want to gather subjective data when focusing on decisions that require information about people's perceptions of the world.



For example, if you want to determine whether a teacher was present in class on a given day, you require objective data. If you want to determine whether parents felt their children learned something useful that day, you require subjective data.

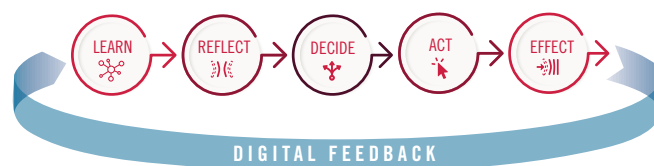
	ACTIVE	PASSIVE
 OBJECTIVE	<p>For example:</p> <p>After opening a dam to release water from a reservoir for irrigation, a field worker measures the water level in the reservoir and transmits the data with their mobile phone.</p>	<p>For example:</p> <p>After opening a dam to release water from a reservoir for irrigation, the water level in the reservoir is measured and transmitted by digital sensor.</p>
 SUBJECTIVE	<p>For example:</p> <p>After a health worker provides services to a community, they ask members of the community “how well do you feel these health services are working?” and records their answers on a tablet.</p>	<p>For example:</p> <p>After a health worker provides services to a community, the program collects data automatically from community members’ tweets and Facebook posts about the health services.</p>

¹⁰ Ramalingam, Bridging the Gap.

Active data is often preferable when the decision requires information that is best gathered in the context of a personal interaction. Conversely, passive data is data that is collected without asking the user for it directly. For example, if you want to determine average driving commute times, passive collection of mobile app data is likely sufficient. If you want to ask follow-up questions about how people make their commuting decisions, active data collection is likely required. The decision between passive or active data collection will also consider the frequency with which you want to make the decision and the resources you have available to support decision-making.

Digital feedback loops support **ADAPTIVE MANAGEMENT**, which USAID defines as “an intentional approach to making decisions and adjustments in response to new information and changes in context.”¹¹ Effective adaptive management requires that we learn, reflect, decide, and act.¹²

Digital feedback loops help feed information on what happens after we Act back into new Learning. Digital feedback loops can help us understand if our tactics (i.e., the ways we go about meeting our goals) are working; this is called **single loop learning**. It can also help us understand if our strategies, or our overall approach, are working; this is called **double loop learning**.¹³ In other words, single loop learning is *learning to do things right*, and double loop learning is *learning to do the right things*.¹⁴



Many types of data can help us learn to do things right and to do the right things. Feedback data is valuable in monitoring and evaluation and it can also be beneficial in a program beyond regular monitoring and evaluation. For example, some development programs feature beneficiary feedback channels, such as a phone or SMS messaging hotlines, which are not a part of formal monitoring and evaluation, but can help identify themes or patterns that are important to the program and its stakeholders. In this way, feedback data can be more likely to surface evidence around unintended effects and underlying questions.

Moreover, feedback loops require that feedback data be gathered and analyzed quickly enough to be used to adapt the system producing it. This is sometimes, but not always, the case with monitoring and evaluation systems. The ability to adapt systems producing data and to capture emergent themes creates many advantages and opportunities, which this guide explores.

Other terms that might be helpful when reading this guide are found in **Annex A**. All seven worksheets included in the guide are compiled into a Workbook at the end. Intended to complement the guide, you can print or photocopy these pages to more easily make use of the worksheets and get started designing and implementing digital feedback loops.

11 USAID. *ADS Chapter 201*.

12 Salib, Monalisa. USAID. (2016) *Adaptive Management: If Not Now, When?* Retrieved October 12, 2018 from <https://usaidearninglab.org/lab-notes/adaptive-management-if-not-now-when>

13 Ramalingam, Bridging the Gap.

14 Ibid.

II. THE CASE FOR DIGITAL FEEDBACK LOOPS

Why should we use digital feedback loops?

Digital feedback loops help USAID missions improve the effectiveness and efficiency of their activities. Effective feedback loops are also a key part of complying with ADS 201, which mandates the use of “relevant sources of information to make course corrections as needed and inform future resources.”¹⁵ As we shall see, digital methods can often be a powerful tool for creating effective feedback loops.

Certain types of feedback loops are also a key factor in complying with US law. The US Consolidated Appropriations Act of 2018 mandates that USAID obtain feedback directly from beneficiaries on the quality and relevance of Development Assistance.¹⁶ Furthermore, the Act mandates that USAID will establish procedures

to ensure that such feedback is responded to and used to maximize the cost-effectiveness and utility of Development Assistance.¹⁷ Digital technologies can be a highly effective means for collecting feedback from beneficiaries, especially when collecting feedback from large populations of beneficiaries or beneficiaries who are hard to reach in person.

Although compliance is one important reason to increase the use of feedback in USAID programs, there is also increasing evidence within USAID and beyond that high-quality digital feedback loops can substantially improve outcomes by:

- Focusing resources where they are needed the most¹⁸
- Enhancing the speed of learning about what works¹⁹
- Mitigating risks and waste²⁰

CASE STUDY

Achieving adaptive management in Uganda with digital feedback loops.

The team that implemented the Agricultural Inputs activity in Uganda, a \$7.5 million, five-year Feed the Future activity, experimented with different digital feedback loops. They used a phone-based survey to enable field agents to share feedback with each other in near real-time and used Interactive Voice Response (IVR) and digital network mapping to capture feedback on whether their activities were reshaping the purchasing habits of agricultural suppliers. These digital feedback loops helped the team test hypotheses more easily and inexpensively and enabled them to iterate rapidly on their programmatic approaches. In the end, this furthered the activity's impact.



15 USAID. *ADS Chapter 201*.

16 U.S. Government Publishing Office. Consolidated Appropriations Act.

17 Ibid.

18 Fast, L., Waugaman, A. USAID. (2016). Fighting Ebola with Information. Retrieved from www.usaid.gov/sites/default/files/documents/15396/FightingEbolaWithInformation.pdf

19 Tetra Tech. “Feed the Future Uganda Agricultural Inputs Activity.” Retrieved from www.tetratech.com/en/projects/feed-the-future-agricultural-inputs-uganda

20 Karuri, J. (2014). DHIS2: The Tool to Improve Health Data Demand and Use in Kenya. *Journal of Health Informatics in Developing Countries*, 8(1).

For example, a USAID mission's use of digital feedback loops helped it achieve the best HIV treatment targeting efficiency in all of Zimbabwe. They've reduced field reporting times from one month to one day.²¹ They've enabled more rapid and effective flood response in Indonesia.²² They've helped more people gain access to water services and reduced the loss of water in Kenya and East Africa.²³ They've improved use of evidence in decision-making.²⁴ They've better satisfied their government clients in Liberia and Morocco.^{25, 26}

USAID personnel and partners have always used feedback loops in their work, but the arrival of digital tools and technologies now enable missions to use feedback loops more often than ever before, more cheaply, and with greater reach.^{27,28}

Digital technology enables the collection and use of right-time data. Right-time data are data that are gathered and analyzed quickly enough to act upon. It can allow for rapid adjustments through fast feedback loops, can uncover new factors that are relevant to implementation, can assure a manager that a proposed solution is having its intended effect, and can help teams understand and adapt the underlying logic of their work.

The speed, economy and reach with which digital feedback loops can be applied make them a powerful tool.

For example, U-Report is a digital feedback tool developed by UNICEF Uganda and then adapted by over 60 countries around the world that enables young people to share their opinions and perceptions on many development topics. It attracted a million active users in its first year of operation.²⁹ In Nigeria alone, almost 3 million young people now provide perceptual feedback through the platform on hundreds of development questions.³⁰ Perceptual feedback is the perspectives, feelings and opinions individuals have about their

COMMON CONCERNS

Doesn't getting feedback slow things down?

Feedback systems do require some initial planning, but once they are in place they can actually speed up implementation because they improve the flow of information about what is working well and what needs attention.

Doesn't gathering feedback cost a lot?

It does take resources and should be budgeted for adequately, but the cost has decreased dramatically, and it can often be accommodated within existing envelopes for monitoring and evaluation.

Does feedback replace the need for regular monitoring and evaluation?

No. Feedback should be thought of as a complement to other monitoring and evaluation data.

Won't feedback just flood us with data we can't use?

It can. That is why it is important to think carefully about the most important information you need and select only the top feedback sources that can realistically be used for adaptive management and decision-making.

Doesn't integrating digital feedback mean taking risks with new approaches?

Rolling out a new approach does require learning and adjustment, but digital feedback loops can be implemented using existing, proven USAID processes and tools, and within existing time and monetary resource constraints.

21 Schaefer, Interview.

22 Ramalingam, Ben et al. (2018). Bridging Real-Time Data for Adaptive Management: Case Study Report. Retrieved from https://www.usaid.gov/sites/default/files/documents/15396/RTD4AM_Case_Study_Report.pdf

23 USAID. (2017). *Planning for Resilience in East Africa through Policy, Adaptation, Research and Economic Development (prepared)*. Retrieved from https://www.usaid.gov/sites/default/files/documents/1860/PPREPARED_Fact_Sheet_August_2017.pdf

24 USAID. *Collaborating, Learning*.

25 McManus, Interview.

26 McDonough, Interview.

27 Ramalingam, Bridging the Gap.

28 Leo, B., Morello R. Center for Global Development. (2015). Do Mobile Phone Surveys Work in Poor Countries? Retrieved from www.cgdev.org/blog/do-mobile-phone-surveys-work-poor-countries

29 Centre for Public Impact. (2016). UNICEF's U-Report: Using mobile technology for youth participation in policymaking. Retrieved from <https://www.centreforpublicimpact.org/case-study/unicef-ureport/>

30 UNICEF. U-Report Nigeria.

experiences with an organization, product, service or policy that are used to inform and improve the organization, product, service or policy. The digital feedback from U-Report helps UNICEF and government authorities better target their interventions and provide more impactful information to families living in remote areas that cannot easily be reached.³¹

Gathering and sharing digital feedback data is easier than ever. In the past, the data we gathered came at much greater intervals and was much more expensive to collect. We couldn't learn as quickly, because we didn't have data coming in as often. Now the cost of collection has decreased substantially, and data comes in from many sources.³² That both increases the importance of and the returns to reflecting and learning. When we act on opportunities more quickly, we can get greater success.

And when we react to problems more quickly, we can reduce risk and cost.

The art is figuring out which digital feedback data will be useful. This guide presents many examples of how USAID missions around the world are using digital feedback loops to enhance responsiveness, increase quality and amplify impact — while at the same time increasing efficiency, reducing waste, and mitigating risk. This guide provides a simple framework, along with tips and further resources, for USAID staff to use to harness the power of digital feedback loops in a way that enhances their work and fits with their priorities and resources. There is no “right” answer — you will have to use your best judgement based on the specific context. The good news is that you can get started wherever you are. This guide outlines simple and practical first steps.

CASE STUDY

Improving outcomes in Indonesia with digital feedback loops.

In Indonesia, government agencies used the PetaBencana digital feedback system to improve their response to floods in the city of Jakarta. The system combined digital feedback data from Twitter, physical water level sensors, and reporting from citizens using a standardized data collection format to create digital maps of flood events. These digital feedback loops enabled government agencies to respond to floods more quickly and effectively. This program was initiated by AusAID and Wollongong University with follow-on support from USAID, MIT, and University of Hawaii's Pacific Disaster Center.



31 Centre for Public Impact. UNICEF's U-Report.
32 Leo, Do Mobile.

III. DIGITAL FEEDBACK LOOPS SUPPORT THE PROGRAM CYCLE

USAID's Program Cycle is based on four Principles that serve as the foundation for ADS 201:

1. **Apply analytic rigor:** Make strategic choices based on conclusions supported by evidence.
2. **Manage adaptively:** Make adjustments in response to new information and context changes.
3. **Promote sustainability:** Generate lasting changes that can be sustained by local actors.
4. **Utilize diverse approaches for increased flexibility:** Use a range of modalities to address diverse development challenges.

This section outlines how digital feedback loops support each of the four Principles. It highlights tools and resources for leveraging digital feedback loops that are tried and tested within USAID, and guiding questions to start the process of applying digital feedback loops in the most useful and practical ways.

PRINCIPLE 1: Apply Analytic Rigor: Make strategic choices based on conclusions supported by evidence.

ADS 201.3.1.2³³ mandates that the rigorous analysis that supports strategic choices include formal assessments, evaluations and studies, as well as consultations with key stakeholders. Digital feedback can be a valuable component of assessments, evaluations, and studies. The speed and low cost of data collection that is possible with digital technology means that digital feedback can support the rapid study of specific program design and implementation choices. Although not the cheapest option in all cases, digital feedback is often a cost-effective way to inform strategic choices in “right time.”³⁴

Digital feedback loops are also a key mechanism for consultation with stakeholders. The low reach-to-cost ratio³⁵ of data collection through digital technology access to evidence that was difficult to access before, for example the perceptions and opinions of end users and last-mile service providers.³⁶ For example, the

Listening Post project in Tanzania, implemented by Farm Radio International, combined radio and phone-based Interactive Voice Response platforms to collect rapid feedback on the effectiveness of agricultural programs from farmers living in remote rural areas.³⁷ Increasingly, thought leaders frame the perceptual feedback of end users as the “third leg” of a stable evidence stool, supported by monitoring, evaluation, and perceptual feedback.³⁸

The key to leveraging the benefits of digital feedback loops is not to collect digital feedback data for their own sake, but to think about what additional evidence you might need to make good decisions, and then to think about how to get that data. For support in doing this, refer to [Worksheet 1: The Three Rs](#). The process outlined in Worksheet 1 is also recommended for Project MEL Plans and Activity MEL Plans. This is an appropriate place to determine and document where digital feedback loops can be used, ensuring effective implementation within the USAID Program Cycle.

TOOL AND RESOURCES

1. USAID's [Monitoring, Evaluation and Learning Toolkits](#) include information on [Project MEL Plans](#) and [Activity MEL Plans](#).
2. Within the CLA toolkit, USAID's [M&E for Learning](#) and [Learning Agenda](#) resources curate several USAID tools and guidance for adaptive, responsive M&E.
3. An analysis of [USAID's CLA 2015 Case Study Competition](#) finds that feedback loops increase the likelihood that that evidence will inform decision-making.
4. USAID's [discussion note on Complexity-Aware Monitoring](#) outlines how feedback loops can help address monitoring blind-spots and links to more resources to help you integrate complexity-aware monitoring.

33 USAID. *ADS Chapter 201*.

34 Ramalingam, *Bridging the Gap*.

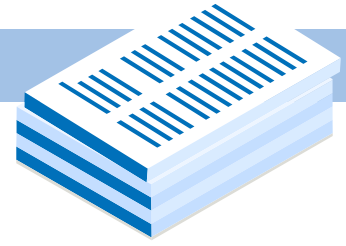
35 Leo, *Do Mobile*.

36 Ramalingam, *Bridging the Gap*.

37 Ramalingam, *Bridging Real-Time Data*.

38 Twersky, F. (2018). *Rebalancing Measurement on a New Three-Legged Stool: Evaluation, Monitoring and Feedback*. Presented at Feedback Summit 2018. Washington, DC, USA.

WORKSHEET 1: THE THREE Rs



To use this worksheet, reflect on the guiding questions and record your answers in the table.

Missions that effectively leverage digital feedback loops decide on their development question first, then collect only the digital feedback data that they need to make good decisions about how to achieve impact with respect to that development question. The key is to:

1. Make the **Right Decisions**
2. Use the **Right Data**
3. At the **Right Time**

To establish the Three Rs for your context, ask yourself the following guiding questions:

1. What critical decisions do we need to make?
2. What critical digital feedback can we get to help inform that decision?
3. When do we need to make which decisions?

For each critical decision, fill in one row of the table below with your answers to the questions above.

Right Decision	Right Data	Right Timing

For example, let's say a Ministry of Health is responsible for stocking drugs at health clinics across the country. If they were developing a digital feedback loop to help support this work, they might fill out the table as follows:

Right Decision	Right Data	Right Timing
<i>We need to decide how many malaria drugs for children to restock every quarter at health clinics.</i>	<i>We need to get data on the stock of malaria drugs for children at each health clinic we support, data on clinic visits, and any data on malaria cases in children.</i>	<i>We need this data quarterly, in time to inform the quarterly district-level inventory order.</i>

PRINCIPLE 2: Manage Adaptively: Make adjustments in response to new information and context changes.

ADS 201.3.1.2 mandates that USAID “must be able to readily adapt programs in response to changes in context and new information,” and encourages the design of flexible programs, intentional learning, and adaptive management. Digital feedback loops help us manage adaptively by helping us move away from the old-style “plan, execute and measure” mentality, which makes it difficult to learn and adapt until the program is finished.

By contrast, digital feedback can support a learn + reflect + decide + act mentality that identifies opportunities, problems and solutions faster within the existing program cycle. More rapid problem identification can reduce the risk of waste.³⁹ With modest extra effort at the beginning, your project is likely to be better designed and targeted, and to generate the information you need during implementation to enable faster adaptation and problem-solving.

The key to leveraging digital feedback loops to support adaptive management is ensuring that the digital feedback data you collect informs decision-making. Using digital feedback data to learn and adapt is the most important part of a digital feedback loop — and often the most common challenge. But if you aren’t adapting based on the digital feedback data, the loop is not complete. For support doing this, refer to [Worksheet 2: Adaptive Meeting Process](#).

TOOL AND RESOURCES

1. USAID’s [Adaptive Management](#) resource curates the latest USAID tools and guidance for adaptive management.
2. USAID’s [Procurement Executive Bulletin 2014-01 on adaptable contracting types](#) and resources on [Adaptive Acquisition and Assistance Mechanisms](#) and [Broad Agency Announcements](#) provides guidance on how to ensure the programmatic flexibility needed to manage adaptively and respond to digital feedback loops.
3. USAID’s [Bridging Real-time Data and Adaptive Management: Ten Lessons for Policy Makers and Practitioners](#) describes how to ensure digital data, including digital feedback data, are used by decision-makers and managers.

CASE STUDY

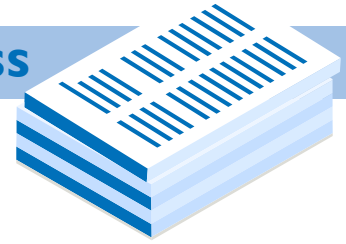
Designing strong digital feedback loops by focusing on key decision makers needs in Uganda.

The team working on the Agricultural Inputs Feed the Future activity in Uganda focused on the Chief of Party as one of their key decision-makers. His interest was better understanding how farmers and their social networks were reacting to the activities supported by Agricultural Inputs, and how the relationships were changing between stakeholders along the agricultural value chain. The team designed several digital feedback systems to provide the Chief of Party with the feedback data he needed. Their focus on designing for his decision-making needs contributed to strong uptake and use of the digital feedback loops.



³⁹ Sarkisova, E. (2016). *Is Feedback Smart?* Feedback Labs. Retrieved from https://feedbacklabs.org/summits/wp-content/uploads/2016/07/FBL_SmartPaper_Final.pdf

WORKSHEET 2: ADAPTIVE MEETING PROCESS



To use this worksheet, reflect on the questions and then follow the instructions below to fill in the table.

Missions that successfully use digital feedback loops to improve the effectiveness and efficiency of their activities focus on adapting based on the digital feedback data they collect. The key is to establish a systematic process by which you regularly assess the digital feedback data you have collected, learn from them, and adapt the management of your program based on what you've learned.

One way to do that is to start meetings with an “adaptive meeting process.” The type of meetings at which you apply the process, their participants and their frequency will depend on your answers to the Three Rs. Once you've identified the meetings in which to apply the process, ask yourself and the meeting participants:

1. What digital feedback data have we collected on the effects of our actions since the last time we met?
2. What can we learn from that digital feedback data?
3. What should we do about what we've learned?

Each action generated in response to the third question will go in one of three buckets below.

TYPE A

Actions for which there is

- a) a consensus for specific action, and
- b) adequate authority and capability in the room to carry it out

TYPE B

Actions for which there is

- a) a consensus for specific action, but
- b) the group needs either the authority or capability to carry it out

TYPE C

Actions for which there is consensus but it either requires

- a) more study before a specific known action can be proposed, or
- b) system-level or policy change beyond what a line manager can approve

Fill in your answers to the questions below. Then, assign a category and an owner to each action that emerges in response to the third question.

What digital feedback data have we collected on the effects of our actions since the last time we met?	What can we learn from that digital feedback data?	What should we do about what we've learned?	What category is each action and who will own that action?

Let's continue our example of a Ministry of Health developing a digital feedback loop to support their restocking of drugs at health clinics. Let's imagine the feedback system were already delivering feedback on drug stock levels at health clinics. During a quarterly meeting they might fill out the table as follows:

What digital feedback data have we collected on the effects of our actions since the last time we met?	What can we learn from that digital feedback data?	What should we do about what we've learned?	What category is each action and who will own that action?
<i>The feedback we gathered and analyzed indicates that drug stocks were too low by the end of last quarter at 80% of the health clinics we support.</i>	<i>This feedback indicates that our quarterly projection models aren't working properly— we projected that drug stocks would be sufficient and that wasn't the case.</i>	<i>1) We should review the model we use to make quarterly projections for drug stocks. 2) We should review whether the budget provided for drug stocks is sufficient to meet the needs of the districts where drug stocks were too low by the end of the quarter.</i>	<i>The first action is a green action. The operations manager for the drug stocking program has the ability to review the projection model will take responsibility for doing so. The second action is a yellow action. We need to engage with someone who has the authority to review our budget for drug stocks.</i>

PRINCIPLE 3: Promote Sustainability: Generate lasting changes that can be sustained by local actors.

ADS 201.3.1.2 establishes that the long-term success of development assistance requires local ownership and mandates that USAID “seek out and respond to the priorities and perspectives of local stakeholders, including the partner country government, beneficiaries, civil society, the private sector, and academia.” Digital feedback can you help access, analyze and document the perspectives of local stakeholders. Incorporating better data on the priorities of local stakeholders into program design and implementation can increase the sense of ownership that local stakeholders have over the program and over time build commitment to sustaining the program.⁴⁰

Long-term sustainability of development programs also requires the long-term maintenance of institutional knowledge, including the knowledge derived from all kinds of feedback data. Digital feedback loops are valuable because the digital storage of feedback data can make the data more accessible over time.⁴¹ Furthermore, digital feedback loops can often be supported within the budgetary constraints of local actors^{42,43,44} particularly since the diffusion of digital technology has reduced the cost of digital feedback loops.^{45,46} Fitting within the budgetary constraints of local actors is important if digital feedback loops are intended to be maintained long-term by local stakeholders.

The key to leveraging digital feedback loops to support the long-term success of development assistance is ensuring that digital feedback loops are iterative over time. That is, we should collect information about our actions and use it to adapt more than once. It is rarely possible to fully understand or solve a development challenge with one study, assessment or feedback loop. Digital feedback loops should be an ongoing, iterative interrogation of strategy and tactics. Furthermore, investing in ongoing conversation about perceptual digital feedback data with the people who provide it is key to maintaining their interest and commitment to a program.

Therefore, digital feedback loops must be designed to be iterative over time, and provisions must be made so that the appropriate stakeholder can maintain those iterations. For support doing this, refer to [Worksheet 3: The Five Rs](#).

TOOL AND RESOURCES

1. USAID’s [discussion note on co-creation](#) provides ideas applicable to engaging the people who need to maintain digital feedback loops in their creation.
 2. USAID provides [facilitation tips for effective stakeholder consultations](#) that can be applied to digital feedback loops.
-

40 Björkman, M., Svensson, J. (2007). *Power to the People: Evidence from a Randomized Field Experiment of a Community-Based Monitoring Project in Uganda*. Washington, DC: World Bank. Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/7447/wps4268.pdf?sequence=1&isAllowed=yes>

41 Murphy, C., personal communication.

42 McManus, Interview.

43 McDonough, Interview, September 11, 2018.

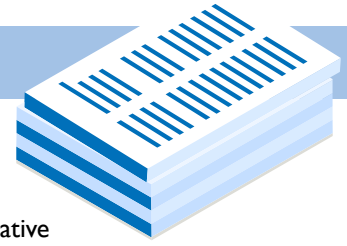
44 Ramalingam, Bridging Real-Time Data.

45 Ramalingam, Bridging the Gap.

46 Leo, Do Mobile.



WORKSHEET 3: THE FIVE Rs



To use this worksheet, reflect on the five questions below and fill in the table.

Missions that leverage digital feedback loops for sustainability use them to support an iterative process of improving problem definition and problem solution, an example of double-loop learning. The key is to ensure that the appropriate stakeholder for your context can use digital feedback loops over time.

One way to do that is to extend the Three R framework to help us reflect on how local actors will sustain digital feedback loops as an ongoing, iterative process. This gives us the Five R framework. The key is to help set up local actors to:

1. Make the **Right Decisions**
2. Using the **Right Data**
3. At the **Right Time**
4. Supported by the **Right Resources**
5. In a way that **Returns to the Data Source** (That is, in a way that samples the same data source more than once, to iteratively better understand what effects their actions are having)

To apply the Five Rs, identify the local stakeholders who will make decisions based on the digital feedback loop in the future. These are the key stakeholders to consider when using this worksheet. Then ask:

1. What critical decisions do they need to make?
2. What critical digital feedback can they get to help inform that decision? (Consider all types of data, including whether this data is objective, subjective, active, or passive as described on pages 5–6).
3. When do they need to make which decisions?
4. What resources will they need to sustain this digital feedback loop?
5. How will they return to the source of the feedback data multiple times?

For each stakeholder’s critical decision identified, fill in your answers to the questions in the table on the next page.

Right Decision	Right Data	Right Time	Right Resources	Return to Source

Continuing our example, on Worksheet 1 we described how the Ministry of Health identified the critical decision of how much to restock drugs at health clinics every quarter. They might have filled out the Five R table as follows:

Right Decision	Right Data	Right Time	Right Resources	Return to Source
We need to decide how many malaria drugs for children to restock every quarter at health clinics.	We need to get data on the stock of malaria drugs for children at each health clinic we support, data on clinic visits, and any data on malaria cases in children.	We need this data quarterly, in time to inform the quarterly district-level inventory order.	To sustain this feedback loop we need a dedicated operations staff to manage and iterate on the feedback loop. We also need to have a line item in the budget to support the digital collection technology we choose.	We will return to the source of this information from health clinics every quarter.



PRINCIPLE 4: Utilize Diverse Approaches for Increased Flexibility: Use a range of modalities to address diverse development challenges.

ADS 201.3.1.2 mandates that USAID “consider a range of options to select the most appropriate means for achieving desired results, matched to the context, needs, and resources available to carry them out.” Digital feedback loops are a powerful way to ascertain what approaches will lead to the desired results in a specific context. The relatively low cost of digital feedback means that multiple approaches can be used to test a range of options. The relatively high speed with which digital feedback data can be collected and analyzed means that “right-time” decisions can be made about which option is best achieving the desired results.

Digital feedback loops are particularly suited to helping select from a range of options because digital feedback data can come in many forms. They can be passive or

active, objective or subjective, and they can be combined with other data types. For example, the PetaBencana digital feedback system for flood response in Jakarta relies mainly on passive, subjective feedback data that are automatically collected from Twitter. However, the system combines that feedback data with passive, objective environmental data from physical water level sensors. The two different types of digital data complement each other and are combined into powerful maps.⁴⁷

TOOL AND RESOURCES

1. USAID’s [Bridging the Gap: Real-Time Data can Contribute to Adaptive Management in International Development](#) details experiences of using different types of digital feedback data to improve programs.
 2. [Considerations for Using Data Responsibly at USAID](#) outlines elements to take into account when assessing digital feedback data options.
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47 Ramalingam, Bridging Real-Time Data.

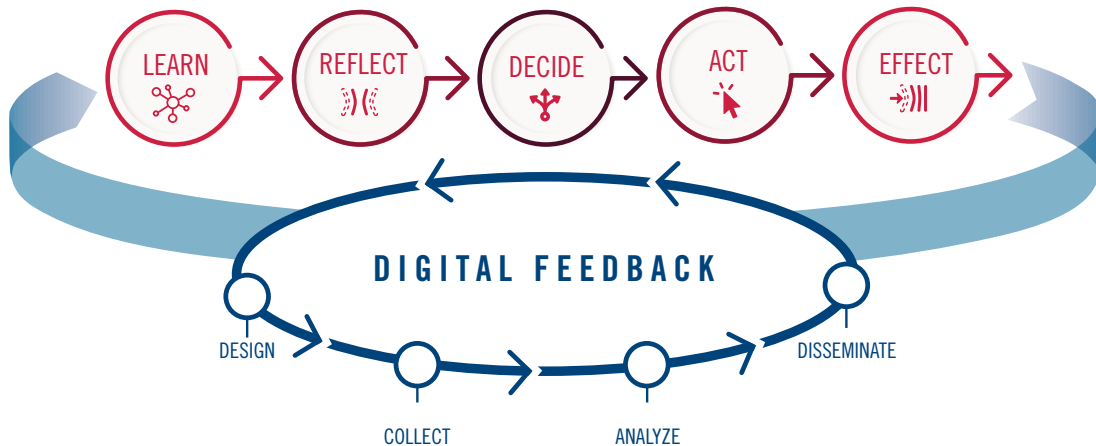
IV. DESIGNING, COLLECTING, ANALYZING AND DISSEMINATING

The previous section established how digital feedback loops support the four USAID Program Cycle Principles and touched on elements of the design and collection of digital feedback loops. This section goes deeper into how to design and implement digital feedback loops.

When implementing digital feedback loops, you'll need to think through the design of the feedback loop, and the collection, analysis, and dissemination of the feedback data.

This section presents implementation considerations and potential challenges associated with each of those stages. This section is laid out in a series of worksheets to guide you in designing your digital feedback loop, collecting the digital feedback data, analyzing the digital feedback data, and disseminating the digital feedback data. You should keep worksheets one through three handy as you fill in worksheets four through seven.

At this point, having completed worksheets one through three, you have a list of critical decisions that your key decision-makers want to make, and have identified what digital feedback data will help them make those decisions. You have identified the times at which the decision-makers need to receive the feedback data, and the resources they have available to sustain the feedback loops. You have also thought through how you will return to the source of feedback data iteratively over time. Essentially, worksheets one through three helped you analyze the needs of your key decision-makers; worksheets four through seven help you design specific digital feedback loops and collect and analyze the digital feedback data to meet the needs of those key decision-makers.



WORKSHEET 4: DESIGN

To use this worksheet, fill in your answers to the guiding questions in the tables below.

The design stage for a digital feedback loop gives all stakeholders the opportunity to get on the same page, clearly articulating the goals of the digital feedback loop and ensuring that the implementation of the digital feedback loop will fit within time, capacity and resource constraints. The key to the design stage is thoughtfully deciding *what* digital feedback data you will collect, from *which* sources, and *how* the data will be collected, analyzed, and used.

1. What characteristics of the digital feedback data sources will affect how you collect the digital feedback data?

Consider:

- a. **Social and cultural considerations.** For example, if people are not comfortable using technology, asking them to fill in a survey on a tablet computer may not be appropriate.
- b. **Technological considerations.** For example, if a geographic area does not have reliable internet service, collecting feedback data from internet-enabled sensors may not be appropriate.
- c. **Economic considerations.** For example, if it's expensive for people to respond to a text, collecting feedback data by mobile phone survey may not be appropriate.
- d. **Political considerations.** For example, during times of political unrest, gathering perceptual data on political questions may be sensitive.

For each of your digital feedback data sources, fill in the considerations you've come up with in the table below.

Data Source	Social & Cultural	Technological	Economic	Political

COMMON CONCERNS

The most common challenge in the design stage is excessive ambition. It can be tempting to:

- Plan to collect as much digital feedback data as possible
- Assume that stakeholders will use all collected digital feedback data
- Overestimate the time and budget available to key stakeholders

A helpful tip is to focus on **decision-maker-driven digital feedback loops**. That is, be thoughtful and realistic about who will make decisions based on the digital feedback loop, what priority decisions they will make, and what their capacity and constraints are.

2. How will you match the design of your digital feedback loop to the existing capacity of, constraints on and considerations that are important to the stakeholder(s) who will sustain the digital feedback loop? Consider:
- Human Capacity.** What knowledge and skills do the stakeholders have to enable them to use digital feedback loops?
 - Technological Capacity.** What technologies are available to the stakeholders?
 - Time Constraints.** How much time will the stakeholders realistically devote to the use of digital feedback loops?
 - Budgetary Constraints.** What monetary resources can the stakeholders marshal to support digital feedback loops?
 - Political Considerations.** What authority and incentives do the stakeholders have to support digital feedback loops?

Fill in the considerations you've come up with in the table below.

Human Capacity	Technological Capacity	Time Constraints	Budgetary Constraints	Political Considerations

Continuing our example, the Ministry of Health might fill in the first table as follows:

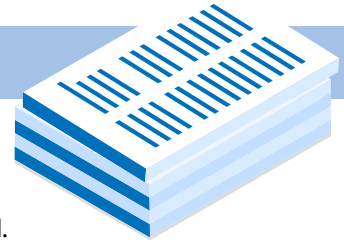
Data Source	Social & Cultural	Technological	Economic	Political
Managers of individual health clinics	<i>The relationship between the Ministry and health clinic managers can sometimes be fraught. We should be careful not to ask questions about issues we can't address, as this may increase feelings of frustration.</i>	<i>Health clinic managers generally possess phones, but not smart phones. This means that collecting feedback via SMS may be more appropriate than collecting feedback via smartphone apps.</i>	<i>Health clinic managers may feel they are underpaid. Therefore, it will be important to ensure that replying to an SMS does not cost them anything.</i>	<i>The Health Ministry and health workers tend to value the existing hierarchy. Therefore, to promote acceptance of the system data should travel through the hierarchy, rather than health clinic managers being able to message the Ministry directly.</i>

The Ministry of Health might fill in the second table as follows:

Human Capacity	Technological Capacity	Time Constraints	Budgetary Constraints	Political Considerations
<p>The manager at the Ministry in charge of this feedback system has good but limited data analysis skills. They will need support, training, or for the data analysis to be relatively straightforward.</p>	<p>Relatively affordable rates on SMS are available to the Ministry through contracts with cell network providers.</p>	<p>Health clinic managers are very busy. The feedback system should rely on only a few questions, or they will be less likely to provide feedback.</p>	<p>We will have to ensure that the contract we sign to access SMS at scale fits within the budget for this feedback system.</p>	<p>The Health Ministry will shortly be split into two entities, one with responsibility for the feedback system and the other with the technical and human capacity to run the system. Coordination between the two entities will be important.</p>



WORKSHEET 5: COLLECT



To use this worksheet, fill in your responses to the guiding questions in the table below.

The collect stage for a digital feedback loop is when the digital feedback data are collected.

The key to the collect stage is matching the collection mechanism to the desired type of digital feedback data.

The choice of collection method will be informed by the questions considered in the design stage. Once you've identified the digital feedback data that you want to collect, you will want to assess which collection method is best suited to help you collect that type of data.

The choice of collection method will be informed by the questions considered in the design stage. Once you've identified the digital feedback data that you want to collect, you will want to assess which collection method is best suited to help you collect that type of data.

COMMON CHALLENGE

The most common challenge in the Collect phase is the assumption that the collection mechanism will work as initially designed. There are several common reasons why digital feedback collection mechanisms may not produce the desired results at first:

- The context in which the digital feedback data is being collected changes;
- Digital technology may require practice to master;
- For perceptual feedback specifically, feedback questions may not be interpreted by the source in the way they were intended.

A helpful tip is to focus on **iterative digital feedback collection involving all stakeholders**. That is, iteratively test digital feedback data collection mechanisms by first collecting feedback on a small scale at low-cost and then using what you learn to progressively refine what feedback data you collect and how you collect it. It's particularly important to involve end users and beneficiaries in this process.

No one digital feedback data collection method is a silver bullet — each has its own benefits and trade-offs:

Method	Pros	Cons	Suited to
Social Media Monitoring	<ul style="list-style-type: none"> • Potential for rapid, sometimes automated identification of trends in language • Large number of users already on the platform • Can be good for engaging an audience 	<ul style="list-style-type: none"> • May require special permissions from social media platforms • Can be prone to selection bias • Generally, requires download and data 	Subjective feedback data, especially new trends in the sentiments of beneficiaries
Physical Sensors	<ul style="list-style-type: none"> • Automated measurement of physical phenomena • Can provide detailed diagnostic data • Increasingly low cost 	<ul style="list-style-type: none"> • Can be difficult to cover large geographic areas long-term • Subjective to operational issues like connectivity and battery life • Variable quality and accuracy 	Objective feedback data for which active collection would be difficult or more expensive
Computer or Tablet	<ul style="list-style-type: none"> • Reduces data entry time and increases accuracy over paper collection • Can include many features and question options • Improving user interfaces 	<ul style="list-style-type: none"> • Requires staff training and supervision • Requires technical and reading literacy • Requires connectivity 	Subjective or objective feedback data that is best collected in person
SMS surveys	<ul style="list-style-type: none"> • Efficient data collection from large or geographically dispersed populations • Generally easy to understand • Allows for targeted feedback data collection 	<ul style="list-style-type: none"> • Requires the respondent to be literate and possess a cell phone • Limited message length • Sending SMS to large groups of people can cost more than using data 	Subjective feedback data, especially on the opinions or experiences of beneficiaries that can be collected by simple polls or series of questions

Method	Pros	Cons	Suited to
Interactive Voice Response surveys	<ul style="list-style-type: none"> Efficient data collection from large or geographically dispersed populations Does not require literacy 	<ul style="list-style-type: none"> Can be difficult for respondents to navigate Requires active participation by the respondent 	Subjective feedback data, especially on the opinions or experiences of beneficiaries who are not literate
Email	<ul style="list-style-type: none"> Personal outreach to key stakeholders may improve the likelihood of receiving feedback, and its quality 	<ul style="list-style-type: none"> May raise anonymity concerns More subject to sampling bias Requires connectivity 	Subjective feedback data, especially from relatively small groups of key stakeholders

Building on your answers in [Worksheet 3: The Five Rs](#) and [Worksheet 4: Design](#), fill in your answers to the following questions in the table below:

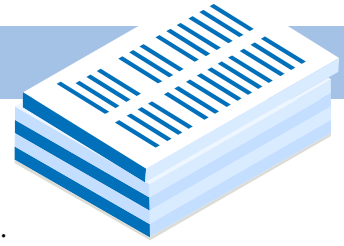
1. What is the critical decision for which you're gathering feedback?
2. What will the source of the feedback be, and what are important characteristics of that source?
3. Given that, what collection technology do you think is most appropriate?

Decision	Data Source	Digital Collection Technology

Continuing our example, the Ministry of Health might fill in the table as follows:

Decision	Data Source	Digital Collection Technology
We need to decide how many malaria drugs for children to restock every quarter at health clinics.	Health clinic managers. See the filled in table on Worksheet 5 for details on the constraints on and considerations involving this data source.	We considered collecting feedback via Interactive Voice Response or apps on tablets but chose to collect feedback via SMS instead. SMS costs fit within our budget and because health workers generally have phones but not smartphones or tablets, we anticipate an SMS-based feedback system will be the most scalable.

WORKSHEET 6: ANALYZE



To use this worksheet, fill in your answers to the guiding questions in the table below.

The analyze stage for a digital feedback loop is when the digital feedback data are analyzed.

The key to the analyze stage is turning the digital feedback data into information that the key decision-makers you identified in the Design stage can and will use.

Important stakeholders to bring into the sense-making process include:

- Decision-makers who will use the analysis to make strategic choices
- People with access to other evidence, including assessments, studies, and structured thinking about experiences, that pertains to the analysis
- People who provided perceptual digital feedback data (if applicable)

Once you've gathered those key stakeholders, the following three questions are useful to ask. Fill in the reflections that come out of the conversation with key stakeholders in the table below.

1. Here is what I think this analyzed data means for what we should do next. What do you think?
2. Is there other evidence that supports or contradicts the implications for what we do that we've come up with based on this analysis?
3. Does this analysis capture the meaning of the feedback you provided? (If speaking to people who provided perceptual feedback data).

COMMON CHALLENGE

The most common challenge in the Analyze stage is assuming that expert analysis of digital feedback data tells the whole story. This may not be the case:

- Different stakeholders will interpret the meaning and implications of analyzed digital feedback data differently;
- Digital feedback data is only one piece of evidence that contributes to strategic decision-making;
- Diverse stakeholders with varied experiences will generate more varied and quality implications of the analyzed digital feedback data.

A helpful tip is to focus on **collective sensemaking of digital feedback data**. That is, once you've completed your initial analysis, check the meaning and implications of the analysis with a diverse set of key stakeholders.

Implications For Decisions	Additional Evidence	Additional Meaning

Let's continue our example and recall [Worksheet 2](#) on which the Ministry of Health gathered and analyzed feedback that indicated that drug stocks were too low by the end of last quarter at 80% of the health clinics they support. The Ministry decided that that meant they should review the model they use for projection drug stock levels. After gathering key stakeholders, the Ministry of Health might fill in the table as follows:

Implications For Decisions	Additional Evidence	Additional Meaning
Key stakeholders agree that the Ministry should review the model they use to project drug stock levels.	<i>In addition, some stakeholders have heard anecdotes from health workers that suggest that the right amounts of drugs are being shipped to health clinics, but that they are sometimes delivered to the wrong clinic. Thus, they recommend that the Ministry also review their shipping procedures.</i>	<i>Although in this example health clinic managers were not asked to provide perceptual feedback, it could be useful to ask them questions like "Overall, how well do you feel able to serve your clients" and then explore the meaning of their responses with them.</i>

CASE STUDY

Improving adaptive management in Indonesia by including diverse stakeholders in digital feedback data analysis.

The Contracting Officer Representative and activity management team on the \$40.7 million IUWASH activity in Indonesia (implemented by DAI), endeavored to improve urban access to water supplies and sanitation facilities. The team established a digital database to allow team members in field posts to log detailed records, capturing a variety of metrics and contextual details, as well as cultivate a network of diverse contacts to help them make sense of feedback data. These contacts included colleagues within USAID and implementing partners, beneficiaries of the activity, government officials and representatives of other donors. Collective sensemaking with these diverse stakeholders generated valuable insights and enabled rapid, agile adaptation.



WORKSHEET 7: DISSEMINATE

To use this worksheet, fill in your answers to the guiding questions in the table below.

The disseminate stage for a digital feedback loop is when the digital feedback data are shared with key stakeholders, especially with the people who provided or collected the feedback data. The key to the disseminate stage is ensuring feedback data empower the people who collected and/or provided it.

Ask yourself the following questions, then fill in the reflections that come out of the conversations with key stakeholders in the table below.

1. Who provided the feedback data, in the case of perceptual feedback? Who collected the feedback data, in the case of active data collection?
2. What feedback data would empower the people who provided or collected the feedback data, if it were shared with them?
3. How might that feedback data be shared with them in a cost-effective way?

COMMON CHALLENGE

The most common challenge in the Disseminate stage is not making the time or resources available to disseminate feedback data back to the people who provided or collected it. This is problematic because

- It can limit the use of feedback data by frontline staff;
- Beneficiaries who don't hear how their feedback is used may be less likely to provide feedback the next time;
- It can reinforce an extractive rather than empowering feedback process.

A helpful tip is to focus on **reporting back to the frontlines**. That is, share your analysis of the feedback data with those who collected the feedback and those who provided it, in the case of perceptual feedback. Often the method by which the feedback data were collected and transmitted can facilitate the dissemination of the feedback data back to the frontlines. For example, the analysis of feedback data collected and transmitted via SMS by front-line service providers can be disseminated back to those providers via SMS. Disseminating information to other key stakeholders and decision-makers can also improve the use of feedback data.

Stakeholder Who Provided or Collected Feedback Data	Data That Would Empower Them	How to Share the Data

Continuing our example, the Ministry of Health might fill out the table as follows:

Stakeholder Who Provided or Collected Feedback Data	Data That Would Empower Them	How to Share the Data
Health clinic managers	<i>We might analyze changes in drug stock levels as a leading indicator of potential disease outbreaks in the area surrounding a certain health clinic. We could report back to health clinics we think might be experiencing an outbreak to remind them where they can go for help and resources. Also, health clinic managers often feel underappreciated. A “thank you” message when they provide feedback would be appropriate.</i>	<i>We can share the data via SMS to the health clinic managers. It could be useful at that point to give them the opportunity to respond with any additional insights or questions.</i>

CASE STUDY

Empowering frontline workers by disseminating feedback data.

The mHero digital feedback system, led by the Liberia Ministry of Health with support by USAID, UNICEF, and IntraHealth, was designed to enable two-way communication between frontline health workers and the central Ministry of Health. Frontline health workers collect and transmit feedback data to the central Ministry of Health. The Ministry disseminates information back to frontline health workers, for example sending them advice on what to do if people present themselves to health workers with two or more symptoms of certain diseases. This dissemination of information back to health workers empowers them.

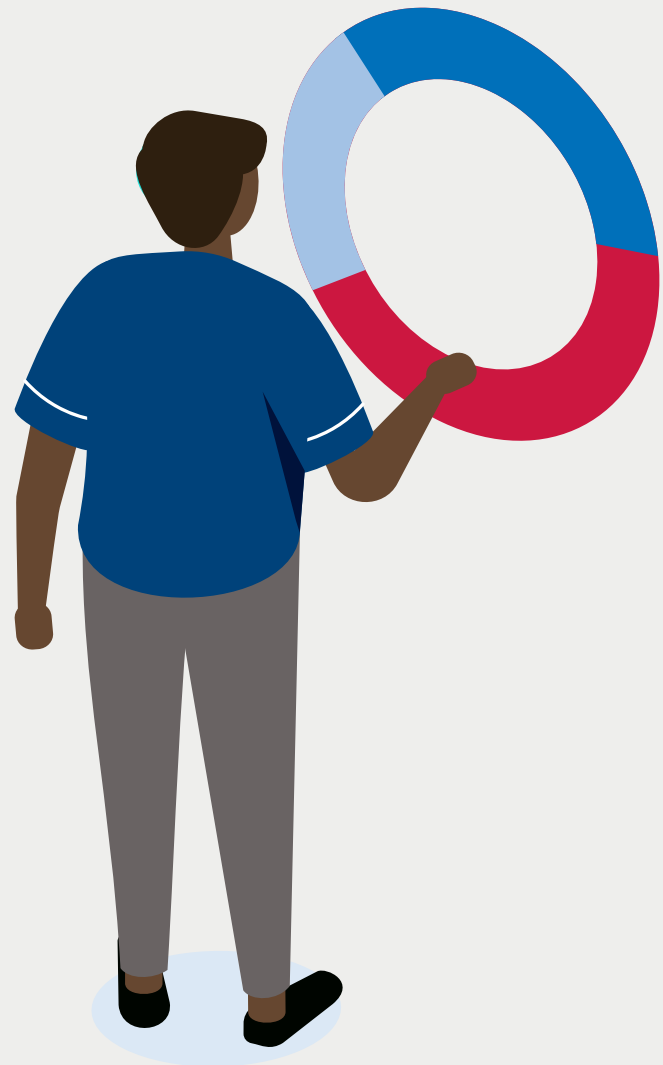


V. LEARNING MORE AND MOVING FORWARD

This guide outlines the case for integrating digital feedback loops into your work, and provides tools, resources and guiding questions to support you as you get started. Digital feedback loops are possible to implement using existing USAID processes and within existing time and resource constraints. To learn more about how, we recommend making use of [USAID's Collaborating, Learning and Adapting portal](#). If you're looking for external resources, the [Feedback Labs website](#) has a range of resources

from a [diagnostic quiz](#), to training [courses](#), and [shared experiences from practitioners from around the world](#).

For more internal resources, please view the [USAID's Development Informatics team site](#) and for questions or help implementing the approaches in this guide, please contact the Development Informatics team at rtdteam@usaid.gov.



ANNEX A - ADDITIONAL TERMINOLOGY

Beneficiaries: people who are affected by a program or policy.

Data: Recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.⁴⁸

Digital feedback loop: a feedback loop (see below) that uses digital technology at some stage.

Evaluation: the systematic collection and analysis of data or information about the outcomes of a program used to improve the effectiveness and inform decisions about current and future programming.⁴⁹

Feedback: information about actions returned to the source of the actions for the purpose of changing or improving those actions.

Feedback loop: Using feedback data to adapt what you do or how you do it creates what is called a feedback loop.

Information: Any communication or reception of knowledge such as facts, data, or opinions, including numerical, graphic, or narrative forms, whether oral or maintained in any medium, including computerized databases, paper, microform, or magnetic tape.⁵⁰

Monitoring: Data or information gathered about performance indicators during implementation to assess whether desired results are occurring and whether implementation is on track.⁵¹

Perceptual Feedback: the perspectives, feelings, and opinions individuals have about their experiences with an organization, product or service that are used to inform and improve the practice and decision-making of that organization.⁵²

48 USAID. (2018) Glossary of ADS Terms. Retrieved from https://www.usaid.gov/sites/default/files/documents/1868/ADS_glossary.pdf

49 Ibid.

50 Ibid.

51 Ibid.

52 Threlfall, V. (2017). Perceptual Feedback: What's it all about? Retrieved from <https://d35kre7me4s5s.cloudfront.net/wp-content/uploads/2017/05/18173322/PerceptualFeedback-20170306.pdf>



WORKBOOK

All seven worksheets included in the guide are compiled into this Workbook. Intended to complement the guide, you can print or photocopy these pages to more easily make use of the worksheets and get started designing and implementing digital feedback loops.

WORKSHEET 1: THE THREE RS

To use this worksheet, reflect on the guiding questions and record your answers in the table.

Missions that effectively leverage digital feedback loops decide on their development question first, then collect only the digital feedback data that they need to make good decisions about how to achieve impact with respect to that development question. The key is to:

1. Make the **Right Decisions**
2. Use the **Right Data**
3. At the **Right Time**

To establish the Three Rs for your context, ask yourself the following guiding questions:

1. What critical decisions do we need to make?
2. What critical digital feedback can we get to help inform that decision?
3. When do we need to make which decisions?

For each critical decision, fill in one row of the table below with your answers to the questions above.

Right Decision	Right Data	Right Timing

For example, let's say a Ministry of Health is responsible for stocking drugs at health clinics across the country. If they were developing a digital feedback loop to help support this work, they might fill out the table as follows:

Right Decision	Right Data	Right Timing
<i>We need to decide how many malaria drugs for children to restock every quarter at health clinics.</i>	<i>We need to get data on the stock of malaria drugs for children at each health clinic we support, data on clinic visits, and any data on malaria cases in children.</i>	<i>We need this data quarterly, in time to inform the quarterly district-level inventory order.</i>

WORKSHEET 2: ADAPTIVE MEETING PROCESS

To use this worksheet, reflect on the questions and then follow the instructions below to fill in the table.

Missions that successfully use digital feedback loops to improve the effectiveness and efficiency of their activities focus on adapting based on the digital feedback data they collect. The key is to establish a systematic process by which you regularly assess the digital feedback data you have collected, learn from them, and adapt the management of your program based on what you've learned.

One way to do that is to start meetings with an "adaptive meeting process." The type of meetings at which you apply the process, their participants and their frequency will depend on your answers to the Three Rs. Once you've identified the meetings in which to apply the process, ask yourself and the meeting participants:

1. What digital feedback data have we collected on the effects of our actions since the last time we met?
2. What can we learn from that digital feedback data?
3. What should we do about what we've learned?

Each action generated in response to the third question will go in one of three buckets below.

TYPE A

Actions for which there is

- a) a consensus for specific action, and
- b) adequate authority and capability in the room to carry it out

TYPE B

Actions for which there is

- a) a consensus for specific action, but
- b) the group needs either the authority or capability to carry it out

TYPE C

Actions for which there is consensus but it either requires

- a) more study before a specific known action can be proposed, or
- b) system-level or policy change beyond what a line manager can approve

Fill in your answers to the questions below. Then, assign a category and an owner to each action that emerges in response to the third question.

What digital feedback data have we collected on the effects of our actions since the last time we met?	What can we learn from that digital feedback data?	What should we do about what we've learned?	What category is each action and who will own that action?

Let's continue our example of a Ministry of Health developing a digital feedback loop to support their restocking of drugs at health clinics. Let's imagine the feedback system were already delivering feedback on drug stock levels at health clinics. During a quarterly meeting they might fill out the table as follows:

What digital feedback data have we collected on the effects of our actions since the last time we met?	What can we learn from that digital feedback data?	What should we do about what we've learned?	What category is each action and who will own that action?
<i>The feedback we gathered and analyzed indicates that drug stocks were too low by the end of last quarter at 80% of the health clinics we support.</i>	<i>This feedback indicates that our quarterly projection models aren't working properly— we projected that drug stocks would be sufficient and that wasn't the case.</i>	<i>1) We should review the model we use to make quarterly projections for drug stocks. 2) We should review whether the budget provided for drug stocks is sufficient to meet the needs of the districts where drug stocks were too low by the end of the quarter.</i>	<i>The first action is a green action. The operations manager for the drug stocking program has the ability to review the projection model will take responsibility for doing so. The second action is a yellow action. We need to engage with someone who has the authority to review our budget for drug stocks.</i>



WORKSHEET 3: THE FIVE Rs

To use this worksheet, reflect on the five questions below and fill in the table.

Missions that leverage digital feedback loops for sustainability use them to support an iterative process of improving problem definition and problem solution, an example of double-loop learning. The key is to ensure that the appropriate stakeholder for your context can use digital feedback loops over time.

One way to do that is to extend the Three R framework to help us reflect on how local actors will sustain digital feedback loops as an ongoing, iterative process. This gives us the Five R framework. The key is to help set up local actors to:

1. Make the **Right Decisions**
2. Using the **Right Data**
3. At the **Right Time**
4. Supported by the **Right Resources**
5. In a way that **Returns to the Data Source** (That is, in a way that samples the same data source more than once, to iteratively better understand what effects their actions are having)

To apply the Five Rs, identify the local stakeholders who will make decisions based on the digital feedback loop in the future. These are the key stakeholders to consider when using this worksheet. Then ask:

1. What critical decisions do they need to make?
2. What critical digital feedback can they get to help inform that decision? (Consider all types of data, including whether this data is objective, subjective, active, or passive as described on pages 5–6).
3. When do they need to make which decisions?
4. What resources will they need to sustain this digital feedback loop?
5. How will they return to the source of the feedback data multiple times?

For each stakeholder’s critical decision identified, fill in your answers to the questions in the table on the next page.

Right Decision	Right Data	Right Time	Right Resources	Return to Source

Continuing our example, on Worksheet 1 we described how the Ministry of Health identified the critical decision of how much to restock drugs at health clinics every quarter. They might have filled out the Five R table as follows:

Right Decision	Right Data	Right Time	Right Resources	Return to Source
We need to decide how many malaria drugs for children to restock every quarter at health clinics.	We need to get data on the stock of malaria drugs for children at each health clinic we support, data on clinic visits, and any data on malaria cases in children.	We need this data quarterly, in time to inform the quarterly district-level inventory order.	To sustain this feedback loop we need a dedicated operations staff to manage and iterate on the feedback loop. We also need to have a line item in the budget to support the digital collection technology we choose.	We will return to the source of this information from health clinics every quarter.



WORKSHEET 4: DESIGN

To use this worksheet, fill in your answers to the guiding questions in the tables below.

The design stage for a digital feedback loop gives all stakeholders the opportunity to get on the same page, clearly articulating the goals of the digital feedback loop and ensuring that the implementation of the digital feedback loop will fit within time, capacity and resource constraints. The key to the design stage is thoughtfully deciding *what* digital feedback data you will collect, from *which* sources, and *how* the data will be collected, analyzed, and used.

1. What characteristics of the digital feedback data sources will affect how you collect the digital feedback data?

Consider:

- a. **Social and cultural considerations.** For example, if people are not comfortable using technology, asking them to fill in a survey on a tablet computer may not be appropriate.
- b. **Technological considerations.** For example, if a geographic area does not have reliable internet service, collecting feedback data from internet-enabled sensors may not be appropriate.
- c. **Economic considerations.** For example, if it's expensive for people to respond to a text, collecting feedback data by mobile phone survey may not be appropriate.
- d. **Political considerations.** For example, during times of political unrest, gathering perceptual data on political questions may be sensitive.

For each of your digital feedback data sources, fill in the considerations you've come up with in the table below.

Data Source	Social & Cultural	Technological	Economic	Political

COMMON CONCERNS

The most common challenge in the design stage is excessive ambition. It can be tempting to:

- Plan to collect as much digital feedback data as possible
- Assume that stakeholders will use all collected digital feedback data
- Overestimate the time and budget available to key stakeholders

A helpful tip is to focus on **decision-maker-driven digital feedback loops**. That is, be thoughtful and realistic about who will make decisions based on the digital feedback loop, what priority decisions they will make, and what their capacity and constraints are.

2. How will you match the design of your digital feedback loop to the existing capacity of, constraints on and considerations that are important to the stakeholder(s) who will sustain the digital feedback loop? Consider:
- Human Capacity.** What knowledge and skills do the stakeholders have to enable them to use digital feedback loops?
 - Technological Capacity.** What technologies are available to the stakeholders?
 - Time Constraints.** How much time will the stakeholders realistically devote to the use of digital feedback loops?
 - Budgetary Constraints.** What monetary resources can the stakeholders marshal to support digital feedback loops?
 - Political Considerations.** What authority and incentives do the stakeholders have to support digital feedback loops?

Fill in the considerations you've come up with in the table below.

Human Capacity	Technological Capacity	Time Constraints	Budgetary Constraints	Political Considerations

Continuing our example, the Ministry of Health might fill in the first table as follows:

Data Source	Social & Cultural	Technological	Economic	Political
Managers of individual health clinics	<i>The relationship between the Ministry and health clinic managers can sometimes be fraught. We should be careful not to ask questions about issues we can't address, as this may increase feelings of frustration.</i>	<i>Health clinic managers generally possess phones, but not smart phones. This means that collecting feedback via SMS may be more appropriate than collecting feedback via smartphone apps.</i>	<i>Health clinic managers may feel they are underpaid. Therefore, it will be important to ensure that replying to an SMS does not cost them anything.</i>	<i>The Health Ministry and health workers tend to value the existing hierarchy. Therefore, to promote acceptance of the system data should travel through the hierarchy, rather than health clinic managers being able to message the Ministry directly.</i>

The Ministry of Health might fill in the second table as follows:

Human Capacity	Technological Capacity	Time Constraints	Budgetary Constraints	Political Considerations
<p>The manager at the Ministry in charge of this feedback system has good but limited data analysis skills. They will need support, training, or for the data analysis to be relatively straightforward.</p>	<p>Relatively affordable rates on SMS are available to the Ministry through contracts with cell network providers.</p>	<p>Health clinic managers are very busy. The feedback system should rely on only a few questions, or they will be less likely to provide feedback.</p>	<p>We will have to ensure that the contract we sign to access SMS at scale fits within the budget for this feedback system.</p>	<p>The Health Ministry will shortly be split into two entities, one with responsibility for the feedback system and the other with the technical and human capacity to run the system. Coordination between the two entities will be important.</p>



WORKSHEET 5: COLLECT

To use this worksheet, fill in your responses to the guiding questions in the table below.

The collect stage for a digital feedback loop is when the digital feedback data are collected. The key to the collect stage is matching the collection mechanism to the desired type of digital feedback data.

The choice of collection method will be informed by the questions considered in the design stage. Once you've identified the digital feedback data that you want to collect, you will want to assess which collection method is best suited to help you collect that type of data.

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COMMON CHALLENGE

The most common challenge in the Collect phase is the assumption that the collection mechanism will work as initially designed. There are several common reasons why digital feedback collection mechanisms may not produce the desired results at first:

- The context in which the digital feedback data is being collected changes;
- Digital technology may require practice to master;
- For perceptual feedback specifically, feedback questions may not be interpreted by the source in the way they were intended.

A helpful tip is to focus on **iterative digital feedback collection involving all stakeholders**. That is, iteratively test digital feedback data collection mechanisms by first collecting feedback on a small scale at low-cost and then using what you learn to progressively refine what feedback data you collect and how you collect it. It's particularly important to involve end users and beneficiaries in this process.

No one digital feedback data collection method is a silver bullet — each has its own benefits and trade-offs:

Method	Pros	Cons	Suited to
Social Media Monitoring	<ul style="list-style-type: none"> • Potential for rapid, sometimes automated identification of trends in language • Large number of users already on the platform • Can be good for engaging an audience 	<ul style="list-style-type: none"> • May require special permissions from social media platforms • Can be prone to selection bias • Generally, requires download and data 	Subjective feedback data, especially new trends in the sentiments of beneficiaries
Physical Sensors	<ul style="list-style-type: none"> • Automated measurement of physical phenomena • Can provide detailed diagnostic data • Increasingly low cost 	<ul style="list-style-type: none"> • Can be difficult to cover large geographic areas long-term • Subjective to operational issues like connectivity and battery life • Variable quality and accuracy 	Objective feedback data for which active collection would be difficult or more expensive
Computer or Tablet	<ul style="list-style-type: none"> • Reduces data entry time and increases accuracy over paper collection • Can include many features and question options • Improving user interfaces 	<ul style="list-style-type: none"> • Requires staff training and supervision • Requires technical and reading literacy • Requires connectivity 	Subjective or objective feedback data that is best collected in person
SMS surveys	<ul style="list-style-type: none"> • Efficient data collection from large or geographically dispersed populations • Generally easy to understand • Allows for targeted feedback data collection 	<ul style="list-style-type: none"> • Requires the respondent to be literate and possess a cell phone • Limited message length • Sending SMS to large groups of people can cost more than using data 	Subjective feedback data, especially on the opinions or experiences of beneficiaries that can be collected by simple polls or series of questions

Method	Pros	Cons	Suited to
Interactive Voice Response surveys	<ul style="list-style-type: none"> Efficient data collection from large or geographically dispersed populations Does not require literacy 	<ul style="list-style-type: none"> Can be difficult for respondents to navigate Requires active participation by the respondent 	Subjective feedback data, especially on the opinions or experiences of beneficiaries who are not literate
Email	<ul style="list-style-type: none"> Personal outreach to key stakeholders may improve the likelihood of receiving feedback, and its quality 	<ul style="list-style-type: none"> May raise anonymity concerns More subject to sampling bias Requires connectivity 	Subjective feedback data, especially from relatively small groups of key stakeholders

Building on your answers in [Worksheet 3: The Five Rs](#) and [Worksheet 4: Design](#), fill in your answers to the following questions in the table below:

1. What is the critical decision for which you're gathering feedback?
2. What will the source of the feedback be, and what are important characteristics of that source?
3. Given that, what collection technology do you think is most appropriate?

Decision	Data Source	Digital Collection Technology

Continuing our example, the Ministry of Health might fill in the table as follows:

Decision	Data Source	Digital Collection Technology
We need to decide how many malaria drugs for children to restock every quarter at health clinics.	Health clinic managers. See the filled in table on Worksheet 5 for details on the constraints on and considerations involving this data source.	We considered collecting feedback via Interactive Voice Response or apps on tablets but chose to collect feedback via SMS instead. SMS costs fit within our budget and because health workers generally have phones but not smartphones or tablets, we anticipate an SMS-based feedback system will be the most scalable.

WORKSHEET 6: ANALYZE

To use this worksheet, fill in your answers to the guiding questions in the table below.

The analyze stage for a digital feedback loop is when the digital feedback data are analyzed.

The key to the analyze stage is turning the digital feedback data into information that the key decision-makers you identified in the Design stage can and will use.

Important stakeholders to bring into the sense-making process include:

- Decision-makers who will use the analysis to make strategic choices
- People with access to other evidence, including assessments, studies, and structured thinking about experiences, that pertains to the analysis
- People who provided perceptual digital feedback data (if applicable)

Once you've gathered those key stakeholders, the following three questions are useful to ask. Fill in the reflections that come out of the conversation with key stakeholders in the table below.

1. Here is what I think this analyzed data means for what we should do next. What do you think?
2. Is there other evidence that supports or contradicts the implications for what we do that we've come up with based on this analysis?
3. Does this analysis capture the meaning of the feedback you provided? (If speaking to people who provided perceptual feedback data).

COMMON CHALLENGE

The most common challenge in the Analyze stage is assuming that expert analysis of digital feedback data tells the whole story. This may not be the case:

- Different stakeholders will interpret the meaning and implications of analyzed digital feedback data differently;
- Digital feedback data is only one piece of evidence that contributes to strategic decision-making;
- Diverse stakeholders with varied experiences will generate more varied and quality implications of the analyzed digital feedback data.

A helpful tip is to focus on **collective sensemaking of digital feedback data**. That is, once you've completed your initial analysis, check the meaning and implications of the analysis with a diverse set of key stakeholders.

Implications For Decisions	Additional Evidence	Additional Meaning

Let's continue our example and recall [Worksheet 2](#) on which the Ministry of Health gathered and analyzed feedback that indicated that drug stocks were too low by the end of last quarter at 80% of the health clinics they support. The Ministry decided that that meant they should review the model they use for projection drug stock levels. After gathering key stakeholders, the Ministry of Health might fill in the table as follows:

Implications For Decisions	Additional Evidence	Additional Meaning
Key stakeholders agree that the Ministry should review the model they use to project drug stock levels.	<i>In addition, some stakeholders have heard anecdotes from health workers that suggest that the right amounts of drugs are being shipped to health clinics, but that they are sometimes delivered to the wrong clinic. Thus, they recommend that the Ministry also review their shipping procedures.</i>	<i>Although in this example health clinic managers were not asked to provide perceptual feedback, it could be useful to ask them questions like "Overall, how well do you feel able to serve your clients" and then explore the meaning of their responses with them.</i>

CASE STUDY

Improving adaptive management in Indonesia by including diverse stakeholders in digital feedback data analysis.

The Contracting Officer Representative and activity management team on the \$40.7 million IUWASH activity in Indonesia (implemented by DAI), endeavored to improve urban access to water supplies and sanitation facilities. The team established a digital database to allow team members in field posts to log detailed records, capturing a variety of metrics and contextual details, as well as cultivate a network of diverse contacts to help them make sense of feedback data. These contacts included colleagues within USAID and implementing partners, beneficiaries of the activity, government officials and representatives of other donors. Collective sensemaking with these diverse stakeholders generated valuable insights and enabled rapid, agile adaptation.



WORKSHEET 7: DISSEMINATE

To use this worksheet, fill in your answers to the guiding questions in the table below.

The disseminate stage for a digital feedback loop is when the digital feedback data are shared with key stakeholders, especially with the people who provided or collected the feedback data. The key to the disseminate stage is ensuring feedback data empower the people who collected and/or provided it.

Ask yourself the following questions, then fill in the reflections that come out of the conversations with key stakeholders in the table below.

1. Who provided the feedback data, in the case of perceptual feedback? Who collected the feedback data, in the case of active data collection?
2. What feedback data would empower the people who provided or collected the feedback data, if it were shared with them?
3. How might that feedback data be shared with them in a cost-effective way?

COMMON CHALLENGE

The most common challenge in the Disseminate stage is not making the time or resources available to disseminate feedback data back to the people who provided or collected it. This is problematic because

- It can limit the use of feedback data by frontline staff;
- Beneficiaries who don't hear how their feedback is used may be less likely to provide feedback the next time;
- It can reinforce an extractive rather than empowering feedback process.

A helpful tip is to focus on **reporting back to the frontlines**. That is, share your analysis of the feedback data with those who collected the feedback and those who provided it, in the case of perceptual feedback. Often the method by which the feedback data were collected and transmitted can facilitate the dissemination of the feedback data back to the frontlines. For example, the analysis of feedback data collected and transmitted via SMS by front-line service providers can be disseminated back to those providers via SMS. Disseminating information to other key stakeholders and decision-makers can also improve the use of feedback data.

Stakeholder Who Provided or Collected Feedback Data	Data That Would Empower Them	How to Share the Data

Continuing our example, the Ministry of Health might fill out the table as follows:

Stakeholder Who Provided or Collected Feedback Data	Data That Would Empower Them	How to Share the Data
Health clinic managers	<i>We might analyze changes in drug stock levels as a leading indicator of potential disease outbreaks in the area surrounding a certain health clinic. We could report back to health clinics we think might be experiencing an outbreak to remind them where they can go for help and resources. Also, health clinic managers often feel underappreciated. A “thank you” message when they provide feedback would be appropriate.</i>	<i>We can share the data via SMS to the health clinic managers. It could be useful at that point to give them the opportunity to respond with any additional insights or questions.</i>

CASE STUDY

Empowering frontline workers by disseminating feedback data.

The mHero digital feedback system, led by the Liberia Ministry of Health with support by USAID, UNICEF, and IntraHealth, was designed to enable two-way communication between frontline health workers and the central Ministry of Health. Frontline health workers collect and transmit feedback data to the central Ministry of Health. The Ministry disseminates information back to frontline health workers, for example sending them advice on what to do if people present themselves to health workers with two or more symptoms of certain diseases. This dissemination of information back to health workers empowers them.

