Digital Health and Interoperability (DH&I) Working Group Meeting

December 7–8, 2017 Meeting Report

The purpose of the Digital Health and Interoperability (DH&I WG) meeting was to review progress made in 2017 and identify potential priorities in 2018 for consideration by the Health Data Collaborative (HDC) Steering Committee. Specifically, participants:
- Contribute to a mapping of digital health tools currently under development and in the pipeline for 2018; identified opportunities for the DH&I WG to engage in those tools.
- Identified criteria that should be met by a *content global good* in order for this group to engage in it.
- Provided feedback on the DH&I WG current and proposed future way of working.
- Explored opportunities to link more explicitly to the HDC.

Background

Health Data Collaborative and Digital Health and Interoperability Working Group

The Health Data Collaborative (HDC) is a joint effort by multiple global health partners to work alongside countries to (1) improve the quality of their health data and (2) track progress towards the health-related Sustainable Development Goals (SDGs). The HDC works through a global network of collaborative platforms, including the Digital Health and Interoperability Working Group (DH&I WG).

The DH&I WG has three primary objectives:

1. Optimize the meaningful use and reuse of health information in low- and middle-income countries to support achievement of the SDGs through the implementation of foundational digital health infrastructures;

2. Actively promote the development, use, and long-term support of digital health 'global public goods'; and

3. Increase, in a measurable way, the level and alignment of country and partner investments in support of Objectives 1 and 2.

DH&I WG deliverables in 2017

During the December 2016 in-person WG meeting, participants agreed to two priority deliverables for 2017:

1. **Maturity Matrix**: The development and operationalization of a digital health ecosystem capability and maturity model to inform appropriate technical assistance and tool development.

2. **Pitch Deck**: The creation of a business case/value proposition for investment into interoperable digital health public goods.

High-level meeting summary

On December 7–8, 2017, 58 participants convened for the third in-person meeting of the DH&I WG, following the completion of the Global Digital Health Forum near Washington, DC. The 1.5-day workshop was organized by DH&I WG co-chairs—Adele Waugaman (US Agency for International Development [USAID]), Garrett Mehl (World Health Organization [WHO]), and Paul Biondich (OGAC/Regenstreif Institute)—and Lauren Wall (PATH). Ross Bindle (Nexight Group) and Claire Droll (PATH) facilitated the meeting. For a full participant list, see Appendix C.

Survey results

After group introductions and brief remarks by co-chairs, Adele Waugaman and Lauren Wall presented the results of the DH&I WG group survey, conducted in October 2017.

Important survey considerations:

- The DH&I WG has 129 members, 70 of whom regularly participate in calls. Forty-nine people completed the survey.
- WG membership and survey respondents are disproportionately skewed to the United States.
- Survey respondents have many different "roles" within the WG.

Table 1 indicates key survey results and actions to be taken.

Table 1. Key results of the DH&I WG survey and actions.

	Feedback	Actions taken or to be taken	Future action to be taken
General	1.1 DH&I WG should increase coordination with HDC.	HDC Secretariat representative, Olive Cocoman, participated in and presented at this meeting. Her presentation included an overview of global goods under development in other WGs.	The co-chairs will share the outcomes of this meeting with the HDC in March 2018 to help inform its future direction. Olive will facilitate strategic connections with the Secretariat and other WGs.
	1.2 There is a need for stronger and more streamlined group communication channels.	DH&I WG Secretariat and co-Chairs have created the following: 1) DH&I WG page on HDC website; 2) Slack channel; and 3) Google Drive. They also initiated a monthly digest to streamline information flow.	Continual feedback and iteration.
	1.3 WG should delegate more work among members.	Space was created in the meeting to identify opportunities for WG engagement in additional activities. Several participants volunteered to lead and/or join	Criteria for project prioritization to be approved in February 2018 WG call. After, member-led small WGs will be piloted.

Objective 1		new sub-working groups.	
Objective 1	2.1 Given the constraints of the current volunteer membership model, it is not feasible to meet the objective.	The WG discussed the limitations of being able to advance work at the country level, absent of guidance and connections at the Secretariat level.	DH&I WG to request opportunity to engage more holistically as a WG in HDC pathfinder country activities.
Objective 2	There is insufficient emphasis on linking to countries.	See 2.1 above	See 2.1 above
Objective 2	The DH&I WG lacks real authority.	Discussion of value of collaboration in absence of authority.	Pilot the expansion of a collaborative model through delegation of leadership for small WG activities to members.
Objective 2	It is unclear how the WG prioritizes the global goods it engages on.	During this in-person meeting, participants identified criteria that can be used to determine if/when the WG supports a global good.	Finalize and pilot criteria in 2018.
Objective 3	Need to diversify membership, particularly to include greater donor and country representation.	Representatives from Merck, GIZ, USAID, and five countries attended the December 2017 meeting.	The Digital Square Secretariat continues to advocate for donors to join the DH&I WG. The nascent African Alliance of Digital Health Networks and AeHIN provide other conduits for strategic engagement in those regions.
2017 Deliverables	Maturity model work should be expanded (e.g., broaden model beyond interoperability).	This meeting had a session dedicated to exploring possible next steps for the maturity model.	Co-chairs will identify next steps on maturity model work and communicate to the maturity model sub-working group.
2017 Deliverables	The WG should complete the pitch deck deliverable and add an ROI component.	This meeting had a session dedicated to exploring possible next steps for the pitch deck.	Co-chairs will identify next steps on pitch deck work and communicate to pitch deck sub-working group.

Note: AeHIN: Asia eHealth Information Network; DH&I WG: Digital Health and Interoperability Working Group; GIZ: Deutsche Gesellschaft für Internationale Zusammenarbeit; HDC: Health Data Collaborative; USAID: US Agency for International Development; WG: working group.

Full survey results will be circulated to the DH&I WG prior to the February 2018 call.

HDC update

Olive Cocoman (WHO) delivered an update on the HDC on behalf of the HDC Secretariat (see presentation and handout in Appendix E). In March 2018, the HDC Secretariat and Technical Working Group leads will meet to determine HDC priorities and deliverables for the next 24 months. Additionally, the Secretariat will establish a new structure to ensure greater technical coherence and effectiveness across the WGs. It will also determine a strategy for the promotion and implementation of global public goods at the country level.

The DH&I WG generated a list of questions and feedback for the HDC. These questions and feedback will be presented on the February DH&I WG call and presented to the HDC by co-Chairs in March 2018.

2017 deliverables: update and next steps

The WG reported out on the status of the two originally-identified priority deliverables in 2017 as well as the addition of a third priority that emerged over the course of the year:

1. Maturity model—presentation by Paul Biondich
2. Terminology work—presentation by Garrett Mehl
3. Pitch deck—presentation by Garrett Mehl

Maturity model

In collaboration with MEASURE Evaluation, the DH&I WG supported the development of a [HIS Interoperability Maturity Toolkit](#) in 2017. Version 0.5 was recently released. The kit contains three main pieces—the maturity model, an assessment tool, and a users' guide. The maturity model identifies the major components of HIS interoperability and lays out an organization's growth pathway through these components. Countries can use the assessment tool to determine their health information systems (HIS) interoperability maturity level systematically. Using the assessment results, countries can create a path toward strengthening their HIS interoperability and building resilient systems. The DH&I WG sub-working group for this deliverable reviewed the maturity model at various stages, tested the model, and added key elements like the glossary of terms and tools for advancement.

Participants discussed the maturity model, its potential impact, and possible future work. Several key themes emerged:

- More can be done to make the tool relevant to countries. This could include developing specific use cases of how the tool has been/could be used in country.
- Many countries do not have the capacity to consume and digest so many tools, including the maturity model. A representative from the Philippines recommended holding a Summit for countries and end users to review this and other tools to determine their utility, practicality, and relevance.
- There is a desire to expand the tool beyond interoperability (into a more comprehensive HIS maturity model). An expanded maturity model tool is an opportunity for the DH&I WG to collaborate with other WGs, like Quality and Data Use.
- The sub-working group should determine how to align the work of the maturity model to the Global Digital Health Index (GDHI).

Maturity model next steps:
- Hold meeting with Maturity Model sub-working group—including new members who volunteered to join during this meeting—to determine priorities for 2018.
- Harmonize with the taxonomy work led by Garrett Mehl at WHO.
- Liaise with other WGs to ensure their tools are reflected in the toolkit.
- Complete mapping of tools to the model.

Taxonomy work

In 2017, the DH&I WG supported the standardized classification of digital health taxonomies, which has multiple uses. Foremost, it is a resource to clarify digital health language and terms, but it can also help to inventory in-country digital assets and aid donors in unpacking concepts like mHealth or HIS. This current version is V1.0, and the work has already been leveraged in the Digital Health Atlas and WHO Systematic Reviews.

The group discussed how to support taxonomy work in the coming year. Suggestions included: 1) Make the list available for countries who wish to conduct inventories; 2) Use the taxonomies as a "Rosetta Stone" tool to translate "digital" to other sectors; and, 3) Use taxonomies to help bridge the gap between technical and non-technical individuals.

Pitch deck

The business case for investment into interoperable digital health public goods is still under development by the sub-working group. Participants can view the draft product here: bit.ly/DHI_pitchdeck. There was substantial enthusiasm around the importance of developing the pitch deck as an advocacy tool for the community.

The group agreed to several next steps to complete the pitch deck deliverable:

- Identify 10-15 experts in the pitch deck sub-working group who have made a business case to donors, government partners, or others about the importance of investing in interoperability. These experts will: 1) Identify pitch deck primary audiences (consider private sector and higher-level leadership) and revise deck content accordingly; 2) Identify the key elements to include in the pitch deck (e.g. standards, interoperability; and, 3) Reduce the number of technical terms and technical analogies used throughout the deck.
- Identify a multi-media company who can translate the draft deck into a 3 to5-minute animated video, which will subsequently be translated into multiple languages. The inspiration for the future video is the Principles for Digital Development animation.
- Create a supplementary FAQ for the pitch deck and/or video.

For more detailed notes, see pages 11 and 12 on Google group notes document.

Learning lab sessions

After lunch, participants engaged in the following four "learning labs." For detailed notes of each session refer to the group Google group notes document. Participant presentations for each session can be found in Appendix E.

- Digital 'REACH' (Regional East African Community Health) Initiative—Dr. Gibson Kibiki, East African Health Research Commission (EAHRC)

- Digital Health Atlas—Tigest Tamrat, WHO

- Health Information Systems Maturity Model—Paul Biondich, Office of the U.S. Global AIDS Coordinator and Health Diplomacy (OGAC/Regenstrief) and Xen Santos, US Centers for Disease Control (CDC)

- Digital Health Investment Review Tool—Steve Ollis, Maternal and Child Survival Program (MCSP)

- Digital Health Global Goods Total Cost of Ownership (TCO) Tool—Merrick Schaefer, USAID

Mapping of digital health tools

In small groups, participants created a list of known non-software digital health tools either in development or in the pipeline for development in 2018. The purpose of mapping these tools was to identify possible gaps where the DH&I WG may be able to provide support. The full mapping can be viewed here and in Appendix D.

Public good endorsement criteria (v 0.1)

On Day 2, participants identified criteria that should be met by a digital health tool—specifically, a content global good (as opposed to a software global good)—for this WG to engage in it. These criteria were further refined during the January 2018 DH&I WG member call. Once all input has been received, the list will be put forward for final endorsement by the WG.

Table 2. Version 0.1 of public good endorsement criteria.

Category	Criteria
Needs-driven	The public good is/has: • Meeting a common, specific need in most environments • A gap/landscape analysis that was conducted before the tool was developed • Use cases and annexes to contextualize tools/software for health
Open and accessible	The public good is/has: • Freely available • Easy-to-use; uses accessible language and taxonomy • Open content • Available broadly, even in areas with limited connectivity • A dissemination plan
Broad utility	The public good is/has: • Inherently reusable in multiple settings/countries • Likely to have a public health impact • A clear comparative advantage over an existing alternative good
User tested	The public good has multiple stakeholders (including representatives of beneficiaries and governments engaged in the tools: • Design • Development • Validation/testing • Use
Standardized	The public good is:

	• consistent with the core values of HDC DH&I WG • consistent with the Principles for Digital Development • adherent to / consistent with existing health information technical standards
Scalable and sustainable	The public good is/has: • clearly identified host leadership • linked to a community of active users/supporters • sufficient resourcing (human/financial) behind it for maintenance/development/scale

Note: DH&I WG: Digital Health and Interoperability Working Group; HDC: Health Data Collaborative.

Next steps:

• These criteria will be taken forward for consensus approval by the WG.

• The criteria will be used to prioritize tools identified during the December DH&I WG meeting to identify a subset of digital health tools around which the DH&I WG could collaborate in 2018.

• The criteria and proposed pipeline of tools will be taken to the to the HDC WG Leads meeting in March and Steering Committee in June 2018.

Conclusion and next steps

The meeting concluded on December 8, 2017. The co-chairs and WG members agreed to the following next steps to advance ongoing work and prepare for the HDC Steering Committee meeting in March 2018.

Table 3. Next steps to advance ongoing work and prepare for next HDC Steering Committee meeting.

Activity	Owner	Timeline
Share questions and feedback to the HDC with HDC Secretariat; receive responses from Olive.	Co-chairs	Q1 2018
Disseminate resources shared and created during the DH&I WG in-person meeting.	PATH	By the February 2018 WG call
Based on meeting outcomes, identify DH&I WG priorities for 2018 to share with HDC in March 2018.	Co-chairs	By March 2018
Maturity model: — Hold meeting with Maturity Model sub-working group to determine priorities for 2018. — Harmonize w/ taxonomy work led by Garrett Mehl (WHO). — Liaise with other WGs to ensure their tools are reflected in the toolkit. — Complete mapping of tools to the model.	Paul Biondich	Ongoing
Pitch deck: — Identify 10-15 experts for the sub-working group to: 1) Identify pitch deck priority audiences; 2) Identify key content to include in	Garrett Mehl	Ongoing

the deck; and, 3) Reduce the number of technical terms and analogies used. – Identify a multi-media company who can translate the draft deck into a 3 to 5-minute video; identify funding for project. – Create supplementary FAQ.		
Digital REACH Initiative Roadmap: – Continue to explore opportunity for engagement.	Co-chairs	Ongoing
Mapping of digital health tools: – Identify a subset of digital health tools that this WG or another WG could support to take forward to the HDC in March 2018.	Co-chairs	March 2018
Criteria to prioritize content global goods for engagement: – Take forward criteria to HDC in March 2018.	Co-chairs	March 2018

Note: DH&I WG: Digital Health and Interoperability Working Group; FAQ: frequently asked questions; HDC: Health Data Collaborative; REACH: Regional East African Community Health; WG: working group; WHO: World Health Organization.

Appendix A: DH&I WG December 2017 meeting agenda

Digital Health and Interoperability Working Group
High-level Meeting Agenda
December 7 to 8, 2017 | Participant Agenda
Willard InterContinental Hotel | 1401 Pennsylvania Avenue NW

The purpose of this meeting is to review progress made in 2017 by the Digital Health and Interoperability (DH&I) Working Group (WG) and identify priorities and possible deliverables in 2018 for consideration by the Health Data Collaborative (HDC) in March 2018. By the meeting's conclusion, participants will:

•   Provide feedback on the DH&I WG's current and proposed future way of working.

•   Explore opportunities to link more explicitly to the HDC.

•   Contribute to a comprehensive map of digital health tools currently under development and in the pipeline for 2018; identify how the WG could support these tools.

•   Identify criteria to guide whether the WG invites partners producing a tool to run drafts of the tool through the WG for "concurrence."

DAY 1

Session Title	Description
8:30 to 9:00 am	Arrival and light breakfast
9:00 to 9:45 am Welcome and introductions	Opening remarks (Adele Waugaman, USAID; Garrett Mehl, WHO; and Paul Biondich, OGAC/Regenstrief Institute). ● Introductions and agenda for 1.5 days–Ross Brindle, facilitator. ● Review objectives and values of the WG–Paul Biondich, OGAC/Regenstrief Institute.
9:45 to 10:15 am WG survey results; proposal of new approach to working	Present WG survey results: what's working and what's not–Adele Waugaman, USAID and Lauren Wall, PATH. Frame objective of this in-person meeting; present proposed new approach to working that will be taken forward to HDC co-chairs in March 2018–Co-chairs.
10:15 to 10:45 am HDC update	HDC Presentation and Q&A–Olive Cocoman, WHO.
10:45 to 11:00 am	Break
11:00 am to 12:15 pm 2017 deliverables and next steps	Report out on 2017 priority deliverables and identify next steps for expansion and/or implementation. ● Maturity Matrix–Paul Biondich, OGAC/Regenstrief Institute

	● Terminology work–Garrett Mehl, WHO ● Pitch deck–Garrett Mehl, WHO; Lauren Wall, PATH.
12:15 to 1:00 pm	Lunch

1:00 to 2:15 pm
Learning Lab–what's on the horizon for 2018?
	Explore developments in the digital health community for the DH&I WG to tap into in 2018.
	
	● East Africa Health Research Commission digital roadmap (Digital REACH)– Dr. Gibson Kibiki, EAHRC
	● Digital Health Tools in the pipeline for 2018
	   o Digital Health Atlas–Tigest Tamrat, WHO
	   o Health Information Systems Maturity–Paul Biondich, OGAC/Regenstrief Institute
	   o Digital Health Investment Review Tool–Steve Ollis, MCSP
	   o Digital Health Global Goods TCO Tool–Merrick Schaefer, USAID

2:30 to 3:15 pm Digital health tool mapping (Group work)	Identify known digital health tools currently under development/in the pipeline in 2018. Groups will capture tool objective, status/progress to date, and opportunities to engage with the DH&I WG in a Google Doc.
3:15 to 3:30 pm	Break
3:30 to 4:45 pm Digital health tool mapping cont'd (plenary)	Reconvene in plenary to map and prioritize list of tools under development/in the pipeline for 2018.
4:45 to 5:00 pm Daily summary	Closing for Day 1.

DAY 2

Session Title	Description
8:30 to 9:00 am	Arrival and light Breakfast
9:00 to 9:15 am Welcome and overview	Recap of Day 1, Overview Day 2–Ross Brindle, facilitator.
9:15 to 10:45 am Concurrence proposal discussion	Plenary discussion on whether the WG invites partners producing a tool to run drafts of the tool through the WG for "concurrence."
10:45 to 11:00 am	Break
11:00 am to 12:00 pm Bringing it all together	Synthesize proposals to HDC regarding digital health tool development and concurrence.
12:00 to 12:30 pm Moving forward	Closing and evaluation.
12:30 pm	Boxed lunch

Appendix B: DH&I WG objectives and values

HDC Digital Health & Interoperability Working Group Objectives:

1. Optimize the meaningful use and reuse of health information technology in low- and middle-income countries to support achievement of SDGs through the implementation of foundational digital health infrastructures;

2. Actively promote the development, use, and long-term support of digital health 'global public goods'; and

3. Increase, in a measurable way, the level and alignment of country and partner investments in support of Objectives 1 and 2.

HDC Digital Health & Interoperability Working Group Shared Values

During the December 2016 in-person meeting, DH&I WG participants set forth the following values, which align to the Principles for Digital Development. Those interested in joining the DH&I Working Group must affirm their agreement with these values.

Open:

• We are open, honest, and actively transparent in both our processes and our work together.

• We believe it's important to publicly document and share our knowledge, skills, experiences, and failures.

• We endorse and support the use of open health information standards, and work to apply them usefully within resource-constrained environments.

User-Centered:

• We respond to specific country and stakeholder demands, not our imagination.

• We design highly adaptable processes and technologies to work in the most challenging environments.

• We believe in upfront planning for sustainability.

Collaborative:

• We work collectively to prioritize and address the real world needs of our workgroup participants.

• We believe in the power of community, as the best ideas come from people with different backgrounds and talents

• We believe in harnessing the wisdom of our workgroup by creating a safe place to raise concerns, discuss failures, improve existing ideas, and solve problems.

Appendix C: December 2017 DH&I WG in-person participant list

First Name	Last Name
Onesmus	Kamau
Olusgun	Agboola
Mark	Allen
Nsaghurwe	Alpha
Amanda	BenDor
Peter	Benjamin
Ashley	Bennett
Saurav	Bhattarai
Paul	Biondich
Olive	Cocoman
Theresa	Cullen
Samantha	Dolan
Vikas	Dwivedi
Iniobong	Ekong
Steve	Felix-Uduh
Ian	Fine
Heidi	Good Boncana
Sherri	Haas
Kathleen	Handley
Nils	Kaiser
Gibson	Kibiki
Boonchai	Kijsanayotin
Manish	Kumar
Rosario	Lemos
Alice	Liu
Andrea	Long-Wagar
Gregory	Maly
Alvin	Marcelo
Maria Georgina	Marques
Garrett	Mehl
Derrick	Muneene
Pascal	Mwele
Henry	Mywanikya
Olusegun	Ogundairo
Steve	Ollis
Olasupo	Oyedepo

Joel	Pliskin
Bayan	Qandil
Melissa	Sabatier
Xenophon	Santas
Merrick	Schaefer
Rita	Sembajwe
Dykki	Settle
Clementina	Da Silva
Jason	Smith
Olayemi	Sotomi
Lisa	Spellman
Alicia	Spengler
Richard	Stanley
Tigest	Tamrat
Paul	Tuthill
Steven	Uggowitzer
Lauren	Wall
Sam	Wambugu
Adele	Waugaman
Bill	Weiss
Tayla	Wyzanski
Henry	Van Wyk

Appendix D: Mapping of digital health tools (for possible engagement)

Tool & "owner"	Tool objectives	Tool status	Opportunity for DH&I WG collaboration	Classification	Who to contact
Health Enabled- Global Health Index	National level assessment of govt/infrastructure/HR/policy	Prototype; 12 countries data in the dB 10 indicators (linked to policy documents)	Yes; (would love for others to be engaged); could link with digital atlas	http://gdhi-showcase-lb-602552207.us-east-1.elb.amazonaws.com/countryProfile/MLI	peter@healthenabled.org Peter Benjamin
Implementers toolkit for social health insurance using digital tools - GIZ (building on JLN work)	Help countries design social insurance schemes	Early stage design	Implementation processes that will be designed in the toolkit will need to be interoperable with other digital health intervention in countries (HMIS, LIMS, and other information systems in the health sector)	All 3.5.1, 3.5.2, 3.5.3 - Health Financing	Saurav & Alicia alicia.spengler@giz.de saurav.bhattarai@giz.de
Cross sectorial interoperability (e.g., human, and zoonotic/climate change linkages)	Support early warning and early sentinel awareness	Not aware of any tool that does this currently	Yes	3.3; 4.0 may need new classification as this includes animals as well as human centric	Andrea (USAID)
mHealth applications security/privacy/ethical guidelines	Standards and conventions as well as guidelines that can be used and evaluated/implemented at the user level	Exist in the US	Yes	1.0 and 2.0	Sam
EMR assessment tool	Tool (compliance checklist of EMR deployments) to assess whether the EMR proposed/	In planning stage (Nigeria)	Provide advice on the compliance checklist	Cutting across all categories	Iniobong Ekong inijust@yahoo.co.uk

	used respond to the standards				
Private sector engagement with public sector	For example: large tech industry actors want to work in the health space; let's help them.	Similar work by GSMA	Produce guidelines; be the entry point.		
Stages of HIS improvement/HIS maturity model	Enable MoH/IPs to assess, and improve HIS; Identify HIS strengthening and interventions	Draft stages document and technical brief developed (https://www.measureevaluation.org/resources/publications/fs-17-246/	Collaborate and develop a joint tool. Question - What do we mean by HIS? Means a lot to a lot of different people		manishk@unc.edu; MEASURE Evaluation
Patient safety within POC HIT applications/ platforms for direct patient care	standards and conventions Guidance developed for implementation	Exists in the US (perhaps other countries)	Yes	2.2; 2.10	Terry Cullen thcullen@regenstrief.org
Follow-up on operationalizing the principles of digital development?	Track adoption and lessons learnt via understanding operationalization of the PDD	Doesn't exist	Document ways PDD have been operationalized. What is relationship to Investment Tool?		
Cross border patient tracking	Longitudinal tracking cross borders	? open HIE as a design; currently as a project RAD (USAID)	yes	2.2; 2.10; 1.4; 1.5 (linked to patient safety above)	Pascal/Andrea (USAID)
PATH-WHO toolkit on implementation> move to next phase, planning, and financing in infosys - version 2 formerly called an implementation guide	Assess needs in program area: planning, implementation, budgeting (financing) guide. Need consistent way to				

	demonstrate consistent process. Resource for MoH colleagues.				
Online sensitization package/ training for health management system leadership	Develop capacity in leadership about data as well as users of the HIS system	Some of this is in the WHO ITU toolkit on governance (may need to be extended)		2.8; 3.1—Leadership (perhaps add this as a classification within DHI)	
Develop IT Investment Review Board artifacts	Share tools to accelerate creation and review of business cases to support IT decision making	In the US (? in LMIC example)		3.0 with it system management	thcullen
RMNCH use cases for interoperability (not necessarily separate tool - early idea, how can we fit into existing work?)	Extension of business case for interoperability, but to provide the health focused use cases for interoperability which is targeting the MNCH community	Early stages idea - work has not yet started	Yes - need input and link to business case work		Steve Ollis, steve.ollis@mcsprogram.org
Costing tool for open HIE implementation -Donna M		In development	This WG to review		Donna, Adele
Digital Health Platform Implementation Handbook – Hani		In development	This WG to review		Hani
Tool: Global HIS Evaluation Toolkit. Owner: University of Washington ITECH (funded by CDC)	HIS Evaluation Toolkit aimed at NGOs or any entity developing or tracking maturity. Such as cost evaluation. Includes guidance can do an operational evaluation to a more rigorous that could go into a research	In development. In draft v2	Seeking feedback and potential groups to pilot toolkit. Question - What do we mean by HIS? Means a lot to a lot of different people.	1.0 Clients 2.0 Healthcare Providers 3.0 Health System Managers	Samantha D, sdolan11@uw.edu

	paper. They acknowledge there is a lot in this tool, so looking for feedback.				
Tool: WHO/ITU Formal Definitions of Digital Health Terminology Owner: WHO/ITU	Glossary of Terms. Trying to define WHO canonical source for terms.	In development	Formalize: Have HDC take on this activity to make a formal WG on a timeline. Need not start anew but migrate to a formal work stream.	4.0 Data Services	Merrick - MSchaefer@usaid.gov
Tool: Management Methodology Owner: WHO/ITU	To provide a pathway for countries to move from strategy to implementation, a normative set of practices.	In development	Formalize: Have HDC take on this activity to make a formal WG on a timeline. Need not start anew but migrate to a formal work stream.	4.0 Data Services	Merrick - MSchaefer@usaid.gov
Tool: Evidence in digital health Owner: Samantha D	(1) Map the existing Classification to existing digital health evidence base. Identify gaps (2) Rate the quality of the evidence (3) Make a call to adjust evidence base	New idea	Collaboration and feedback	1.0 – 4.0	Lisa S, Samantha Dolan, sdolan11@uw.edu

Appendix E: Presentations and handouts

All presentations are also available in this Google Drive.

Health Data Collaborative Update | Presentation by Olive Cocoman

Update from HDC
TWGs Dec 5 2017- Ol

Digital 'REACH' (Regional East African Community Health) Initiative Handouts

Digital-REACH-Initiati
ve-Roadmap_2017-1:

Digital REACH
Initiative Roadmap_F/

6page-Digital
REACH-Initiative-Info

Digital Health Investment Review Tool | Presentation by Steve Ollis

Digital Health
Investment Review To

Digital Health Global Goods Total Cost of Ownership (TCO) Tool | Presentation by Merrick Schaefer

TCO Digital Global
Goods - Merrick Scha