Health Data Collaborative, LMIS Working Group

DECEMBER 7TH 2017

CHEMONICS GHSC-PSM CRYSTAL CITY OFFICE

251 18TH STREET SOUTH, ARLINGTON, VA 22202 USA

Introductions

Draft Meeting Objectives:

1. Support countries with development of information systems policies and guidelines for health commodities
2. Develop on a common framework, approach and principles for coordination of LMIS investments and technical support to countries
3. Document learnings about open LMIS, private sector LMIS options, strategies to re design / reengineer LMIS based on experience from the field
4. Develop a global strategy to support digital health solutions for LMIS
5. Agree and adopt information standards

Work Planning and Discussion

Original Questions for the Group

- *What does a consortium of partners offer to countries, other clients?*
- *What are 1-2 priority targets for the upcoming year / 5 – years – where should we focus?*
- *What are the highest priority uses of the data?*
- *What is the life cycle of data management technologies and how is that managed in a LMIS setting?*
- *Interoperability is a challenge, what are the highest priority functions, such as regulatory affairs, where interoperability needs to be included in plans? What other systems, e.g. regulatory, HMIS need to be linked?*
- *Ownership of data and ability for others to see different levels?*

Discussion Notes

- Country data ownership is a big issue.
- There's a supply issue that there are not enough systems in the market place for countries to choose from. Or, there's a demand issue, systems may be there but…
  - When you present an LMIS, the audience asks "how do we do this". It may be an education on what LMIS does.
  - What's the level of maturity for their systems (are they still using paper – yes – then they aren't ready for a system)?
    - Rephrase the question – how do we define lifecycle (in context of maturity), need to acknowledge the country investment (they are the ones that will operate and manage the system)?
- Governance should be included on a separate point.
- Interoperability
  - eHealth architecture is missing. Without it, you can't have interoperability.
  - Governance, Design and System implementation (3 pillars), can't jump into interoperability without them. There are requirements before getting to implementation.
- Continuous improvement is considered in overall strategy.

- What are the marginal costs for growing it in multiple directions, maturity model sounds like a bad investment?
- Should work with the other technical working groups, HDC is one of several bodies discussing these topics.
- How's other systems working (i.e. ICT, LMIS systems)?
  - The most mature system on the ground isn't LMIS, it's difficult to connect when it's not already the mature system.
- Data ownership goes under governance.
- Demand for this group is global based, it has never received a country request. This is a challenge we have.
  - This group should focus on doing a few things very well, instead trying to do a lot of things okay.

LMIS Working Group: Proposed Activities for 2018

Activity	Agency + Name	LHF	RWA	NSE
Mapping: country status	ISG, GAVI, Digital Square	x		
Mapping: relevant KM products	**TBD**	x		
Agreed essential elements of maturity	TGF, VR, GAVI, JSI, WHO	X		
Guidance on moving towards maturity	Logistimo, VR, GAVI, WHO		x	
Scope of interoperability	Logistimo, VR, Digital Square, JSI, BMGF	x		
Cross-collaboration strategy including within HDC and without	**TBD**	x		
Proposal on policy and governance frameworks for LMIS investment	Logistimo, VR, GAVI, BMGF		x	
Definitions of basic packages of information	Logistimo, VR, GAVI, BMGF, UiO, Intellicog			x
Country coordination	ISG, BMGF	x		
*Proposals for collaborative investment, stewardship and country support				

LHF = low hanging fruit; RWA = really well, and in an amazing way; NSE = important, but not so easy.

Discussion Notes on Action Points

- Don't think mapping countries belongs on the list because the list may be getting too large.
- Regularity group was capturing counterfeit medicine information, they didn't define the scope.
- Agreeing about what we are talking about in business domains, but this won't be achieved in a year.
- What tangible thing can we do with policy and governance?

- Do we agree on terms and levels of systems of LMIS? We constantly misuse words and terminology. Can this group agree on some terms and definitions?
- Universally agreed upon on metadata for these systems, we don't have them, countries are asking for them.
- Will a joint guidance document be useful?

Interoperability/DHIS2

Discussion Notes

- Get requests/questions about using DHIS2 for warehouse management.
    - o UiO doesn't recommend it, won't let countries do it but there are people that are doing it.
    - o The country may already have DHIS2, they have the developers so they think they can use it as a WMS.
    - o Has there been global standard for systems, what about the appetite for solution providers to move in that direction?
    - o How do you help countries select solutions? Do we have policies or guidance on how to help providers out, what about getting providers in? Who has that power to help countries in their selection process?
- *Where does it make sense to push development of DHIS2?*
- Research shows highly complex systems are not scalable systems.
- Partners in countries need to question and push trade-offs. For example, facility level (is it more complex?) vs. national level (is it simpler?)
    - o Upfront costs of building the system is known, it's the maintenance and long-term costs that is unknown and folks are asking for guidance.
    - o Are we asking the right questions? Asking countries for use cases for systems.
        - ▪ What's the environment now? What systems are you using now?
- Interested in working with the MoH in Kenya. Kenya has the fastest growing technical market in Africa. Take a bottom-up approach and see if they can start doing the development themselves.
- Building out cStock (a SMS based transactional tracking of community health worker commodities), it's adding another layer of interoperability but can push data (can't pull because no open API).
- Should focus on country coordination among stakeholders, would like a mechanism in place. *Reference proposed activities on page 2.*

GS1 Standards Adoption

- How are USAID and PSM working with suppliers to follow the standards?
    - o Identified the top 20 to put pressure on them and leverage is based on the quantities ordered.
- It feels like every country is doing its own thing, how are you deciding what data to collect?
    - o There are 145 attributes for each product. Not all attributes are used for each single product.

- - - Manufacturers need to register with GHSC-PSM's Supplier Portal for transactional data and the Global Data Synchronization Network (GSDN) for master data.
      - Planning validation process to ensure the data received is accurate.
  - Are there ERPs that don't support GS1?
    - The system may be able to support GSI but the country may not be ready.
  - National authorities and solution providers are trying to figure it out.
    - Need to recognize parallel tracks that may cross paths.
    - Everyone needs to check themselves every so often on what are the global standards.
  - Sort through the central data management, who controls the data and the integrity of that data?

Rules of engagement with PSM

- Data as a public good?
  - Systems put in place are in-country, are starting to collect data around HIV products.
  - It would have to be a country by country basis.
- USAID would like for countries to be financially responsible for sustaining their own programs.
  - Would like for the projects to be maintained and implemented locally, the RFP asks for someone on the team to be local (could be subcontractor).
  - Encouraging knowledge transfer, building up local capacity and ability.
  - By having someone local, they can provide knowledge of the process and how to carry out the process in country during maintenance and operational phase.
  - USAID/GHSC-PSM using this to support local communities and sustainable.
- Global Public Good – USAID prefers open source so that any money spent on one country can benefit another country, if it meets the country's requirements.
- Gates is supporting Tanzania with eHealth strategies. What are each agency's strengths? How can we tap into each other's strengths?
  - Haven't been able to step in before, hoping to bridge this gap.
- Getting countries to share data:
  - The more data countries identify and collect, the better they can build something that is more valuable (i.e. machine learning).
  - Data collection is difficult. Got to look at national policies (ex: Nigeria policies are vague)
  - How can we protect a country and allow other countries to benefit from their data?
    - There may be early adapters that are willing to give their datasets.
  - National sovereignty isn't considered first and foremost for DHIS2.
    - If we can accept it, we can share best practices (i.e. share Tanzania's best practices).
      - There are conferences that are just for countries/MoH without donors where they can share successes and challenges without having to share their data (or others requesting it).
- Is USAID looking at specific countries when they are talking about sustainability?
- Would be nice to have a 1-2 pager that answers:
  - What is open source?
    - Is there a backdoor, will you have access to my data, where is the server, etc.

- o What is the expectation if a country makes a modification, do we want that version of software to be shared?
- o Can be used for communication and advocacy about open source.

Technology and Standards

- Common standards speed up implementation. A lot of time is spent on getting master data. If there are common standards for master data, the focus can be on implementation and not on the data.
- Security and audits:
  - o There's no governance and policies for who at MoH can access data, who has access to what.
  - o Costs vs. Risks. Levels of risk (hosting, passwords, etc.).
  - o eHealth governance issue, not uniquely a supply chain issue.
  - o Security policies and security training (using personal computers, USB drives, etc.).
  - o Establishing guidance will be programmatic because drawing the boundaries will be difficult and it's huge.
  - o Do no harm principle.
- Product master is key and updating the product master is important.
- No one wants to support every standard, we should agree on which standards need to be applied.
- Change management – having multiple versions of standards and keeping up with all versions, compatibility issues.

What role should the HDC play in defining, recommending, supporting, choosing technologies and standards?

- HDC's Role for standards:
  - o Top-down standards and bottom-up standards.
  - o WWW consortium was always late in picking up the standards, it's hard to push from the top. Developers are fiercely independent.
  - o GS1 is a good idea, however developers tend to not see the big picture like GS1 and its implications.
    - ▪ GS1 is coordinating with donors to promote use and enforce.
  - o If its unique to supply chain (like GS1) there's a role for HDC. Recommendation should be to be aware of these standards, standards will have to be dealt with it eventually.
  - o Help MoH reduce fragmentation of LMIS systems within country.
    - ▪ Can we get donors and implementers in agreement?
      - • At least have the conversation with MoH.
  - o Coordinate investment of LMIS.
    - ▪ Taking time to build something that is reusable.
    - ▪ When updating software to new versions, it would be nice if it doesn't break other functionality.
- What does it mean to be a global good?
  - o Standards are a moving target.

Sustainability

- Are donors seeing what other donors are doing and what they are implementing? A solution market place or suite of solutions should be added to the HDC LMIS Working Group list of things to do.
- Some plans never get operationalized (i.e. Tanzania had a great plan), how can donors support a country that has a great plan?
- Who's the backbone or components for effective collaborative?
    - It's the facilitation and coordination.
    - It's a role that needs to be recognized, Hitesh has been serving in this role.
    - Person should not pick sides and be able to direct the group.
- Jumping to the end game.
    - The ISG had a period of change, need to identify the end game to get this working group going. Need to collaborate on some key things. Identifying and clarifying what is the next conversation.
    - What does success look like? It would be helpful, maybe a vision above the objectives.
- Ultimately you want to send the community a message, create a movement. We should be more deliberate.
- Is there a timeline?
    - In 5 years, should have an ecosystem of donors. Not just have three staff that focus on supply chains.
        - These groups evolve.
        - Quick win – take TOR and objectives. What is short term success, what is long term success?
- Outputs of this should be the inputs for how the donors are going to conduct business, as it pertains to LMIS.
- Targets: What are the donor's targets for sustainability? In terms of how we approach countries? What's the thinking around it and should it be a focus?
    - Large scale implementations, Gates did the high-risk part and then, had Logistimo take over.
        - Donors are trying to spark change and hand it over to someone to carry out, not trying to take on the whole transformation.
    - USAID should think of country sustainability and how other donors are going to be involved.
    - Gates thinks about other solutions and strategy, how to make a sustainable market place.
    - Do countries know upfront how much a lifecycle will cost? Will it be totally or partially funded by donors?
    - What about resource choices?
    - Need to advise countries on how to spend the money donors give them.

Being Data Friendly

- Data culture
    - Data quality is bad. During implementation, what kind of incentives do you provide?
    - When you get the user at the last mile, they see this tool is going to make their job easier, they see they will be better serve their consumers better.

- o MoH only sees data from top-down. Flip it! Primary consumer is the person entering the data and should benefit from the quality of the data.
- o What is the motivation for the government to improve their data? If the information is wrong/logistics is wrong, donors just send more. This may be the wrong conditions, setting them up for failure.
- o It takes a long time for users to see the benefit from them entering the data. Think about the reporting cycle (bi-monthly or monthly) from when they see improvement. It's delayed gratification.
- o RFP is prescriptive and don't ask for innovation.
  - ▪ That could be because people are doing their homework and know what they want. That shouldn't prevent people from coming up with creative solutions.
- o There's a question about maturity.
- o If you currently have a lot of systems and don't use your data, what needs to happen to make data more valuable for them.
- o Driving data down to the lower levels has proven to be more valuable.
  - ▪ People don't use data, they use knowledge.
- o When the data is high enough quality, we can feed it back in another way. Bulletin board concept.
  - ▪ When you introduce the feedback loop, adoption starts to increase and quality got better.
- o Data Quality, only way to improve quality is to use it (adoption).
  - ▪ What is LMIS? Thinking of the narrowest definition – someone entering data into a system. Now, think of a transaction system. What's the source of the LMIS data? The suppliers. Think beyond LMIS as being a logistics data system. Look at the sources of the data.
- o Adoption has changed, it's now more about the engagement of users. Need to understand user needs. How can we re-enforce these learnings?
- o Need to find incentives or financial hooks. Ex: India was interested in reducing spend, found the problem and corrected the procurement process.
- Supporting tool principles?
  - o Keep complexity behind the curtain, people still need simplicity.
  - o Big bang/CRDM approach might not be applicable.
    - ▪ Ex: Small town builds a road. A facility is now connected to multiple towns and now they are a distributer.
  - o When change is small and incremental (iterative), it's more permanent.
  - o Software should handle every state from 1 all the way through 5, without needing to add more and more software.
  - o The changes are in how the data is presented, it's not changes to the fundamental core.
- Observations:
  - o Need funds for changes and to plan for those changes, however aligning it to funding cycles is difficult.
  - o Conditional funding:
    - ▪ Are there funds linked to data sharing?
  - o HR & Data completeness: pay per report?

- No, it's their job. It's a pay per performance.
- ○ SaaS – how can you sell it to MoH?
  - Tanzania has been paying for ERP licensing for years (not just district level).
  - It increases the risk, not all countries will do it. A funded risk. Can we think of a solution for that?
  - Terms of Service is usually "we own the data". Need to consider data ownerships. Need to educate the MoH on it. What's the solution here?
- ○ Changes
  - How to communicate and manage changes?
    - Work through all the avenues.
    - It's an opportunity for users to do less (user had to do math, now they don't).
  - Is the juice worth the squeeze? This should be the first step.
    - Should know the "why". Can't just take something that is generic and try to apply somewhere else. It will most likely fail.
  - Where can we draw the line?

HDC LMIS / ICT Visibility

- Global Public Goods have expectations, now assumptions. There's core funding to support these efforts. What about long term funding to support changes to software to keep up with changing standards?
- Are Village Reach's SaaS model adhering to the definition of global public good?
  - ○ There may be assumptions that violate the definition.
- Digital Square information will be shared.

Next Steps

- What does success look like?
- Global Health Assembly – take advantage of events when everyone is gathered to meet in-person.
- Leads of the different working groups will get together in February, cross fertilization, what are other groups doing? A good opportunity to get together again.
  - ○ Wiki or Slack
- How many times do we need to meet?
  - ○ Quarterly check-ins to check on how groups are progressing through activity.
- Need to schedule a follow-up call soon to refine everything coming out of the meeting.
- Prioritize what activities to focus on and get done well.
- All activities are about clarity and visibility of LMIS data interoperability.
- This is different than working on a secretariat since it's unfunded.
- Might want to start with a call to clarify activities, timeline, define success and allow others to contribute that aren't here.

- o Are there other organizations not included? Do we need a vetting process? What's the criteria for membership of this group?
- o Should we consider having MoH as members?
  - Some groups do it, HDC is encouraging it but we should understand what we want to accomplish. It might be premature in inviting government.
    - Consider the timing in bringing in MoH.
  - How many governments do you want to work with? It could be a catalyst effect.
- o There should be some point we want actual consumers to tell us what they want.
  - There might be very specific times we want this level of engagement.
  - Got to remember some countries are reluctant to share their data.
  - Can be exposure for this group.
- On the next call:
  - o Think about criteria for membership.
  - o Over the course of time, we will:
    - Adjust work plan, as needed.
    - Need to think about how we manage the situation if a project comes out of this group and needs funding.
      - There's a secretariat to manage funding (Lisa) will check on how this is managed.
  - o Will schedule it for Mid-January.