Change Pathways in Revolutionizing the Health Information System in Ethiopia

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Activity Impact

- The skill and behavior of health institution staff to produce and analyze quality data improved, enabling individuals, communities, and organizations to develop, implement, and maintain quality (safe, effective, and efficient) health services as demonstrated by improved key programmatic indicators.
- Health professionals adoption and use of critical digital health tools increased over time.
- The number of woreda health offices conducting routine data quality assessments increased over time, and resulted in periodic course corrections, which ultimately improved data quality.
- Woreda health offices and health institution planning became better aligned to what their data indicated.
- Existing performance management team were revitalized and strengthened at woreda and facility levels with the added incentive of using quality data.
- Improved data management practice (recording and reporting) and data analysis and visualization practices were observed.
- Health providers and managers increasingly used data for planning, monitoring, administrative support, and resource mobilization decision-making.
- The data use initiative strengthened the performance monitoring team ability to identify low performing indicators, predominantly centered around maternal and child health outcomes, and develop action plans for implementation/improvement.
- The availability of data within the supply chain systems improved product availability and reduced wastage rate and expired drugs

Evidence

- DHA, in collaboration with the MOH, conducted baseline and follow-up assessments to determine the status of health institution along the IR pathways.
- DHA provided technical, material and financial support, to date, to 83 woreda health offices, 393 health center, 43 hospitals and 1,398 health posts.
- At baseline, there were 233 emerging, 59 low-candidate and 6 high-candidate institutions. There were no model or candidate, high candidate and model health institutions increased from 59 to 81, 6 to 92, and 0 to 78 in three years, respectively (Figure 3).
- The average verification factor for all health institutions increased from 58% to 87% percent in two years demonstrating marked improvements.
- The percent of health institutions producing quality data increased over time (Figure 4).

Discussion

- The roadmap identified digitization, data use, and governance as critical to realize the IR by 2025.
- Success, according to the roadmap, is measured by progress of health institutions in their composite score against 100, measured in three domains: data quality, data use and infrastructure. Each are measured out of 30, 45 and 30, respectively.
- Health institutions progress through five distinct pathways with increasing IR scores called IR pathways: emerging (score <65), low candidate (score 65-80), high candidate (score 81-90) and model (score >90).
- The intended end-state is a strong culture of evidence-based decision-making to improve health care coverage, quality and equity. Shifts from low score to high score demonstrate progress along the IR pathway.
- DHA in collaboration with the MOH identified and supported 100 woredas (districts), which included 500 health centers and 2,500 health posts. Additionally, DHA identified and supported 21 hospitals and 6 universities. Each university supported two woredas on their IR journey.
- A baseline assessment was conducted before implementing the IR intervention. The assessment used the standard national IR assessment and scoring checklist. Follow-up assessments are conducted every three months at each institution to monitor their progress.
- Based on the result of the assessment, DHA would provide tailored technical support to health institutions to help them positively shift their status along the IR pathway.
- DHA provided technical, material, and infrastructural, and financial support.

Technical Support

- Offered training, supportive supervision, mentorship informed by assessments, across 100 woredas and 3,000 health facilities.
- Provided data quality assessments using five indicators: mortality positivity rate, percent of people living with HIV who know their status, Penta 3 coverage, skilled birth attendance, and TB case detection.
- Implemented behavioral interventions to enhance data use.
- Ensured digital health system functionality and provided utilization support.
- Developed and assured knowledge, and availability, of national governance documents (e.g. HMS indicator revisions, IR implementation strategy, guidelines, etc.).
- Conducting regular IR assessments to determine status of health institutions along the IR pathways.
- Coupled high-performing woredas, with low-performing woredas for technical exchange and mentorship.

Material and Infrastructure Support

- Gap-filling distribution of HMS tools (shelves, registers, tally sheets, reporting forms) including tools needed for community health information systems in their recording and reporting.
- Access out IT infrastructure: distributing tablets, computers, power banks, sim-cards, and printers.
- Development, deployment, installation and maintenance of digital tools (e.g. point-of-care applications, electronic logistic management information systems, DHIS2, etc.).

Financial Support:

- Provided grants to six universities to implement the IR
- Financially supported woreda-based planning
- Funded performance review meetings
- Funded data quality assessments
- 30 woredas and 8 IR model hospitals enrolled
- 79 woredas, 244 health facilities and 23 IR model hospitals enrolled
- Oct 2020 - Sep 2021
- Oct 2021 - Mar 2022

- 83 woredas, 457 health facilities and 36 IR model hospital enrolled
- Oct 2019 - Sep 2020

Figure 1: A phased enrollment of health institutions in the IR program

Additional Figures:

- Figure 2: IR Scores at Baseline and Follow-up
- Figure 3: IR Pathway Progress at Baseline and Follow-up
- Figure 4: Average verification factor is within the acceptable range for the Factory indicators, measured quarterly over October 2020-March 2022
- Figure 5: Average verification factor is within the acceptable range for the Factory indicators, measured quarterly over October 2020-March 2022

Lessons Learned

- Quality data drives use of a health system: Data-driven decisions ensures the health system is well tied to the needs and demands of its clientele and results in well-used, person-centered care and optimal health outcomes.
- A standardized assessment of health institutions helps provide tailored and long-term support.
- It is possible to stimulate and nurture a culture of data use and maintain the results in government-led innovative implementation approaches.
- Collaboration with government, universities and partners produce results that help create widespread ownership and accountability, which drives results.
- Agility and adaptability in IR support during crises, such as COVID-19 and civil unrest, can help achieve targets.
- Coupling high-performing woredas with low-performing woredas help cross-breed best practices