How Social Network Platforms Can Improve the Use of Data

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MEASURE Evaluation

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INTRODUCTION

A social network (SN) may be defined as an electronic platform that allows participants to create personal profiles and build a network of connections with other users, enabling multidirectional communication and collaboration on the platform (Capurro, Cole, Echavarria, Joe, Neogi, et al., 2014). SNs enable users to generate and share content with others. As a mechanism for collaborative discussion and problem solving, SNs are a low-cost way to communicate rapidly and to promote social support and social influence.

QUESTIONS: Can social network platforms be used to improve the collection, quality, review, and interpretation of data? Can they be harnessed to facilitate data-informed decision making?

Recent literature reviews have examined the use of SN platforms for public health practice and research, primarily in high- and middle-income country settings. Cappurro, et al. (2014) found that SN sites were mainly used to reach hard-to-reach populations; promote healthy behaviors; and for disease surveillance and communications during natural disasters. However, there is the potential for SN platforms to be used as "persuasive technology," helping to change user attitudes or behaviors through persuasion and social influence (Halko & Kientz, 2010). Connecting groups of people can be a means to provide social and emotional support, advice, and education, which can promote healthy behaviors. Literature reviews conducted in 2014 and 2015 on the use and effectiveness of SN sites for health behavior change found that SN interventions positively affect health behaviors (Maher, Lewis, Ferrar, Marshall, De Bourdeaudhuij, et al., 2014; Laranjo, Arguel, Neves, Gallagher, Kaplan, et al., 2015). In these cases, most interventions conducted were information sharing and advice, with only one involving data sharing to promote accountability and friendly social competition (Foster, Linehan, Kirman, Lawson & James, 2010).

Significant human and financial resources have been invested in information systems, with the goal of producing high-quality data that are used to meet decision-making needs at all levels of a health system. For data to be used for decision making, they must be of high quality (i.e., available, timely, and complete), and then analyzed, synthesized, interpreted, and reviewed (Nutley & Reynolds, 2013). These are the key elements of the data use process. The data use process is impacted by the confluence of technical, organizational, and behavioral factors that facilitate or constrain the use of data. For example, data interpretation and review may be impeded because mechanisms for review (e.g., meetings) occur infrequently and require resources (e.g., time and funding). Moreover, data analysis and interpretation skills may be limited. Organizations may prioritize data quality and reporting while if they lead to the use of information.

Social network platforms can help to overcome barriers to data use, by providing a mechanism for diverse types of users to interact, share information and feedback, and review and discuss data. MEASURE Evaluation explored how SN platforms are being used to improve data collection, data quality, and data review and interpretation, and how their potential can be harnessed to facilitate data-informed decision making.

METHODS

MEASURE Evaluation sought to understand how SN platforms are being employed to improve the use of data in HIV and other health programs. We conducted a literature review using PubMed, and an online search of organizational websites and databases to identify examples of programs and projects in low- and middle-income countries that used SN platforms to improve data reporting, quality, and use. We also distributed an online survey to relevant organizations and listservs* to solicit examples. We identified 27 cases of SNs employed by global health programs. To be included in this report, the SN platform needed to facilitate communication about the collection, review, and use of data. We excluded SNs that were used solely for communication, peer support, and coordination among health workers; or as mobile learning platforms. The MEASURE Evaluation team conducted one-on-one in-depth interviews with seven people (representing five organizations and six unique projects) to gain a deeper understanding of the ways in which the SN platforms were used to improve data reporting, quality, and use in HIV and other health programs.

*The online survey was sent out to the following listservs: Global Digital Health Network, DataUseNet, CORE Group, and information and communications technology for community health workers (ict4chw) Google group.

FINDINGS AND DISCUSSION

This report presents six cases describing how SNs were used in low- and middle-income countries to improve the collection, quality, and use of data for decision making. Table 1 provides an overview of the cases. These SN platforms were used in the public sector and by implementing partners for project implementation.

Table 1. Description of SN platforms

Project / implementing organization	Setting	Project objective(s)	SN platform technology used	SN membership	SN objective(s)
Better Immunization Data (BID)/ PATH	Tanzania	Enhance health service delivery by developing and implementing interventions to improve data collection, quality, and use.	WhatsApp	Health workers at facility and district level who are newly trained on an electronic immunization registry. The SN is managed by the health workers, and includes facility in-charges; district immunization officers; reproductive maternal, newborn, and child health focal persons, district data use immunization mentors, and BID Initiative staff (observation only).	Discuss progress, challenges, and outputs with using the electronic registry for data capture, access and use Communicate data use messages Share graphs and tables to generate discussion on performance and trends
Cross-Border Health Integrated Partnership Project (CB-HIPP)/ FHI360, Medic Mobile, and partners	Kenya, Tanzania, Uganda, Rwanda, Burundi	Increase access to and uptake of integrated HIV/AIDS services at strategic cross-border sites, targeting key populations (e.g., female sex workers, men who have sex with men, people who inject drugs and vulnerable populations (e.g., transportation and other mobile workers, vulnerable women and girls, people living with	WhatsApp	Cross-border peer educators from target groups are trained to educate their peers, and to promote access to and uptake of health services through a cross-border community-facility referral linkage system. Selected cross-border peer educators or site leader representatives from each project site are linked to	Provide troubleshooting and technological support to teams of peer educators as they used a mHealth tool to report on service delivery, outreach activities, and facility referrals for targeted hard-to-reach populations Share knowledge and best practices Provide feedback on data quality issues

Project / implementing organization	Setting	Project objective(s)	SN platform technology used	SN membership	SN objective(s)
		HIV/AIDS). An mHealth tool was introduced to cross-border peer educators to support referrals and treatment adherence.		the peer network, along with CB-HIPP project staff.	
inSupply/JSI	Kenya	Improve performance and efficiency of supply chains by building capacity in the effective use of data. Introduce management best practices.	WhatsApp	IMPACT teams were formed at the county level to learn and apply data and management practices; hold monthly meetings to review data; identify areas for improvement; and develop interventions to address these areas. The teams consisted of public health supply chain leaders, including pharmacists and commodity managers.	Share updates and communications from team leaders Raise questions on issues or problems using the health management information system (HMIS) and logistics management information system Manage and plan for the redistribution of commodities Communicate action points discussed during in-person meetings
inSupply/JSI	Tanzania	Improve performance and efficiency of supply chains by building capacity in the effective use of data. Introduce management best practices.	WhatsApp	District and regional immunization officers were trained to use a new Vaccine Immunization Management System (VIMS) to track commodities, cold chain assets, and routine immunization data. SN members were district and regional immunization officers trained in the VIMS, the JSI team, and project partners.	Share and troubleshoot technological issues regarding the information system Share feedback and analysis of data summarizing implementation progress, reporting progress, and routine programmatic indicators Share performance information and recognition
Health Management	Mali	Improve data collection and	DHIS 2	DHIS 2 users include in-charges	Discuss and share interpretations of

Project / implementing organization	Setting	Project objective(s)	SN platform technology used	SN membership	SN objective(s)
Information System / Ministry of Health and Public Hygiene		data integration through the roll out and implementation of the DHIS 2.		at the health facility level; HMIS officers, program focal persons and medical health officers at the district level; HMIS officers and program focal persons at the regional level; and monitoring, evaluation, and planning focal persons at the national level.	data analytics (charts, maps, and reports created in the DHIS 2 dashboard)
Global Business System / Population Services International (PSI)	Multiple locations	DHIS 2 is used by 30+ PSI country programs as a management information system for the collection, management, visualization, and use of data to inform the strategic management of programs	DHIS 2	Project-specific DHIS 2 user groups defined by user access to the dashboard; for example, country program managers, monitoring and evaluation personnel, senior leadership, and field teams.	Discuss and share interpretations of data analytics (charts, maps, and reports created in the DHIS 2 dashboard) to inform program decision making processes

Objectives of the Social Networks

As described in Table 1, the SNs' objectives were quite broad. Many evolved during the implementation of activities. Rarely did the initial SN objectives relate specifically to improving reporting, data quality, and use of data. Common objectives of the SN platforms were:

- Sharing standardized communications (e.g., from group leaders, from national to sub-national levels), especially around preparing for meetings and program activities
- Mobilizing resources, especially for the distribution and sharing of commodities
- Serving as an educational platform
- Sharing experiences, issues, and challenges faced at work
- Soliciting advice on challenges related to service provision, work tasks, and reporting, and obtaining support from peers, supervisors, and other technical advisors

Software Platforms Used

Four of the SNs employed WhatsApp, a free instant messaging service for mobile phones that does not require customization before use. WhatsApp can be used across different mobile operating systems to send text messages, voice messages, images, videos, and documents to a pre-defined group. Respondents indicated that WhatsApp was selected as the preferred platform because it is the most popular messaging application in sub-Saharan Africa and is used ubiquitously (Schwartz, 2016). In many cases, respondents

were already accustomed to accessing WhatsApp for their personal use and were therefore able to avoid the steep learning curve associated with training and orientation to a new electronic platform. We also investigated use of the DHIS 2 platform, developed by the Health Information Systems Programme. DHIS 2 includes such features as a data interpretation feed, which allows users to share their interpretations of data, comment on other users' interpretations, and initiate discussions about the visuals and analytics produced by the system.

How can social networks improve data reporting?

The SN platforms were used to improve the availability and timeliness of reported data. For example, the inSupply project in Kenya used the WhatsApp platform to send reminders to health workers to submit their reports on time. Other projects described how the platforms were used to quickly share screenshots of reports if health workers were having difficulty submitting them on time because of connectivity issues, power outages, or challenges using other electronic platforms.

Discussions conducted on the SNs led to improvements in data collection and reporting tools. In the BID Initiative, members shared information about how to fill out a monthly Immunizations and Vaccines Development report through the WhatsApp group. Group members shared pictures of a job aid to guide others completing the report and helped clarify questions from others, resulting in improved reporting accuracy. A discussion about a new vaccine information management system in Tanzania among a WhatsApp group used by the inSupply project's teams led to improvements in the availability and recording of data on vaccine wastage, including the generation of a new report by the information system to make these data readily available to health workers. As health workers connect to share experiences and challenges faced in their workplaces, SNs can be used to communicate, in real time, about ongoing information needs and whether information systems are responding to their needs.

How can social networks improve data quality?

SN platforms can be used to identify and discuss data quality issues. For example, in the CB-HIPP project, a new mHealth tool was piloted among peer educators in Kenya and Uganda to enhance referral and treatment adherence by linking community and health facilities at cross-border sites. A SN was formed to link a group of site leaders to discuss and quickly resolve problems related to the mHealth tool. The discussion quickly evolved and expanded to include issues related to reporting and data quality. As the project's peer educators were not able to look at the quality of their own data once they were submitted in the mHealth tool, the SN provided an easy way to share best practices in data quality, improve knowledge, and close capacity gaps. Common data quality issues highlighted through the review and synthesis of reports submitted were fed back by technical and programmatic project partners through the SN platform to site leaders, who in turn cascaded down data quality messages with the peer educators during in-person meetings. This feedback initiated discussions among members in the WhatsApp group on whether others faced similar issues, and to brainstorming solutions to address the data quality problems. It was especially important in this multi-country project to communicate clarifications in a timely manner concerning indicator definitions and inputs into data collection fields so that the data were recorded consistently across sites. Questions about the lack of clarity of digital reporting tools were raised by SN members, discussed openly, and resolved for the benefit of all users. These discussions led to an increase in user confidence and improvements in data quality.

SNs can help improve data quality by making a pool of people available to troubleshoot difficulties. They can also be used to quickly hold individuals accountable for following through on corrective actions for data quality errors. For example, Figure 1 shows a conversation among a group of health workers on the WhatsApp platform concerning the challenges of data reporting errors in Tanzania. The figure shows that a child vaccination card report had been incorrectly filled out by a health worker. During the discussion, a regional immunization and vaccination officer (RIVO) requested the nurse to resend a picture of the card once the data reporting error was fixed, thereby ensuring learning for others in the SN and closing the loop on this data error.

How can social networks improve data sharing, feedback, review, and interpretation?

Social network platforms can be used to facilitate the sharing, feedback, review, and interpretation of data. These are important precursors to data-informed advocacy, decision making, and action. SN platforms can be used to disseminate snapshots of data visualizations, graphs, and charts, and to identify necessary actions. For example, in the BID Initiative, immunization mentors and RIVOs often sent out data visualizations from their information management system to a WhatsApp SN of immunization health workers. The visualizations shared included graphs of routine district-level immunization performance, missing reports requiring follow up, and information on troublesome trends and on high- and low-performing districts. Figure 2 presents examples of 1) graphs shared on a SN platform for members to see trends in different districts and 2) to identify missing reports from a certain facility. The SN platform was used to flag issues for discussion during supportive supervision and in-person visits, for example, instructing individuals on the network to follow-up with facilities that may require dedicated support.

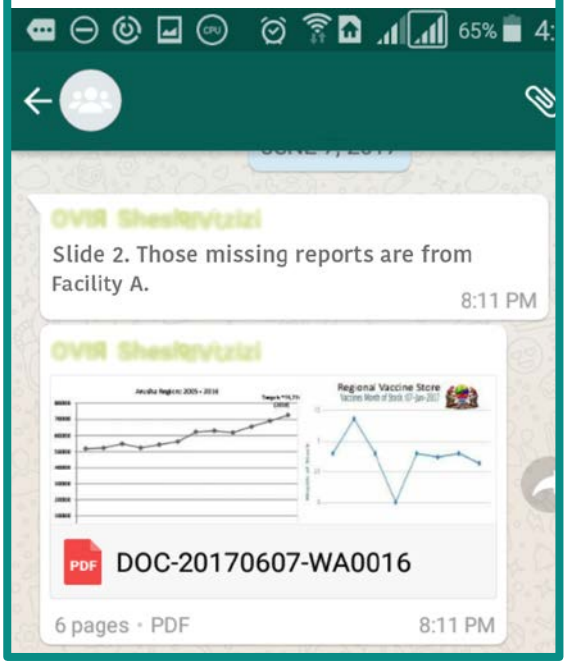
Figure 1. Screenshot of a conversation among health workers discussing challenges with reporting forms that are not correctly filled in

Source: BID Initiative

Other organizations used SN platforms to encourage detailed discussions on data that were fed back and shared with the user group. For example, the inSupply project in Tanzania used its WhatsApp network to send out weekly one-pagers ("Data Mondays"), which provided synthesized and analyzed data to health workers for discussion. Created by project staff, the one-pagers usually consisted of a data visualization (e.g., graph), a brief interpretation of the graph, and bullets on next steps based on the interpretation. There was a weekly discussion about the data presented in the one-pager. Topics varied month to month, ranging from reports on implementation progress, data quality indicators (reporting rates and completeness of reports), and feedback on how specific users were interacting with a vaccine information management system (e.g., identification of champions; recognizing high performers doing well with stock management). The topics evolved as the use of the information system increased. In the beginning, when the focus was on developing and implementing the system, discussions focused largely on data quality and were shared by managers. Now, as the information system is rolling out, users have begun to conduct their own analytics and initiate discussions about supply chain performance and other issues in the SN platform.

Figure 2. Screenshot of reports and data visualizations shared on WhatsApp, flagging issues such as missing reports that require follow-up

Source: BID Initiative

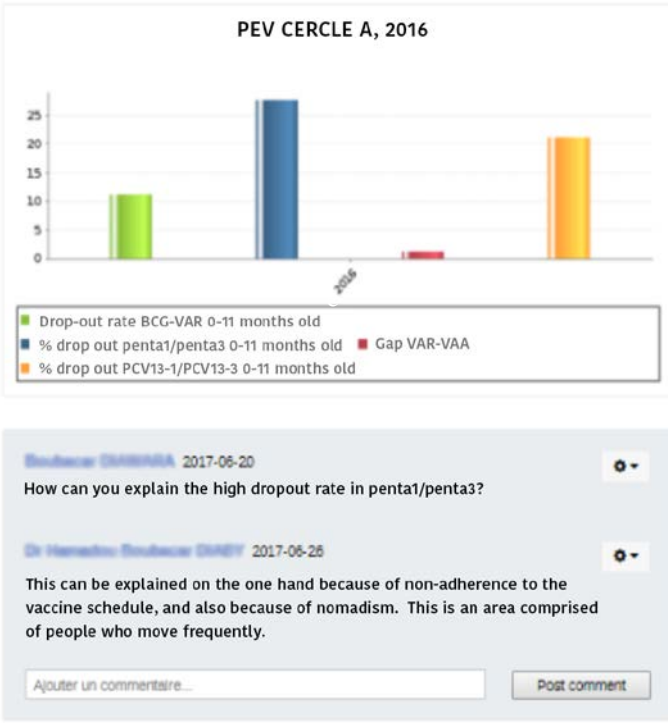


In the inSupply project in Kenya, IMPACT team leaders analyze logistics and health information data to generate key data quality and performance indicators, visualize performance, identify areas for improvement, and develop action plans to address problems. SNs are used to complement routine data review meetings among these teams. The SN platforms provide an additional mechanism for accountability and tracking progress on action plans, especially for ensuring follow up with facilities.

DHIS 2, an open source health management information system, includes a "data interpretations feed" feature that allows for the interpretation of dashboards and other visualizations to be shared among users. In Mali, where DHIS 2 was introduced in mid-2016, the data interpretations feed feature was spontaneously used, without the active encouragement or direction of project staff or supervisors. Graphs, maps, and tables have been shared by health facility in-charges and district staff, along with requests for help to interpret trends. Figure 3 presents an example of a DHIS 2 user in Mali who posted a bar chart comparing immunization dropout rates between the first and third doses for different vaccines. This prompted a discussion in which another user asked for other SN members to interpret the high dropout rate seen with the pentavalent vaccine. Another user shared his/her interpretation, suggesting that the dropout rate may be because of non-adherence to the vaccination schedule in a mobile, nomadic population.

The DHIS 2 data interpretations feed feature has been used to highlight performance issues and request information to help understand program performance. However, the use of this feature is still nascent in Mali. People are more likely to share visualizations and data to show others that they are competent in the use of DHIS 2, but this does not automatically lead to an in-depth review or discussion of the data. Plans to improve the use of the system's data interpretations feed feature include introducing a moderator, who will ask structured questions and facilitate discussion to encourage user behavior and improve the quality of discussions.

Figure 3. Screenshot of a DHIS 2 data interpretations feed in Mali



Another interesting feature of the DHIS 2 platform that can be promoted is the ability to easily generate and share analytics queries and user statistics, for example, the top five interpretations (in terms of the number of comments), the top five people who post, and the top five people who comment on others' interpretations (Figure 4). This publicly rewards high performance in data review and interpretation, and can motivate and encourage others to contribute. Ideas for further development of this feature are measuring participation in/contributions to data interpretation as an indicator in the district league table, which is a visual social accountability tool that ranks districts according to their performance on development and service delivery indicators.

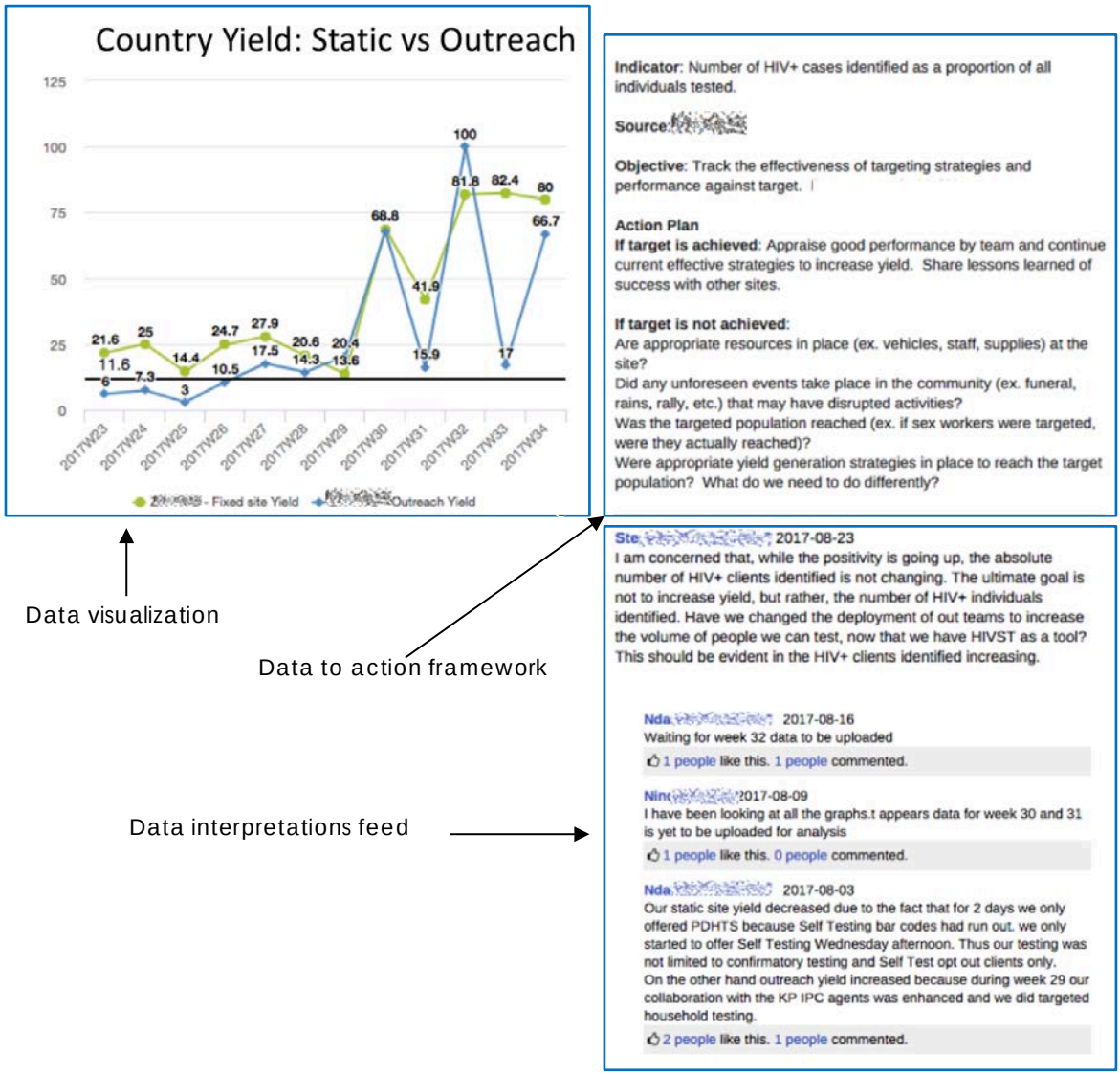
Some organizations have taken cues from popular social media platforms to increase the intuitiveness of their systems and ability to engage with data. This allows users to access and harness all the information that is available at their fingertips. PSI worked with the University of Oslo to develop more dynamic DHIS 2 dashboard functionalities and improve the data interpretations feature for its project management information system. These enhancements, which are available for all DHIS 2 users, were designed to facilitate data driven conversations.

Figure 4. Screenshot of an analytic query for the DHIS 2 data interpretations feed feature, highlighting user statistics (DHIS 2.26 Overview, n.d.)

For priority indicators in PSI's programs, "data to action" frameworks are embedded into the dashboard to highlight information that helps users make decisions. The objective of the dashboard and associated action points are clearly identified, along with details about the target and actions to take if the target is achieved or not achieved (See Figure 5). Specific discussion prompts are also included, for example, what unexpected events occurred in the community that might explain performance? Users can have a conversation about their program data directly in their dashboards using the data interpretations feed. This helps trigger discussions among staff to understand pitfalls and barriers in achieving the desire performance and to plan for ways to improve.

Discussions in PSI's DHIS 2 interpretations platform typically revolve around program performance and trends. These conversations have led to programmatic decisions that help ensure that performance targets are met (e.g., reallocation of human resources and commodities, tailored feedback for improvement, targeted supervision visits). The data interpretations feed also facilitates the documentation of decisions that were informed by data, allowing for monitoring, evaluation, and communication of data use success stories to reinforce the value of data for decision making.

Figure 5. Screenshot of a PSI DHIS 2 dashboard with a data interpretations feed customized with intuitive social engagement features



Source: DHIS 2 (PSI instance)

Does the choice of a social network platform influence its uptake and sustained use?

People are more likely to engage and participate in a system that they already use. Many projects mentioned prior attempts to use technology or SNs to facilitate interaction and knowledge sharing that failed. For example, the BID Initiative initially used brief learning videos to disseminate best practices on data use and had short tutorials on how to use new technologies. The videos were not successful because health workers were not accustomed to watching videos for learning purposes, and found it difficult to devote time to view them. Alternatively, data use messages shared on WhatsApp were better received. The InSupply project tested WebEx and Google Groups to distribute monthly discussion topics to the IMPACT team leaders. It experienced technical barriers with this approach. People often had trouble logging on because of hardware and internet connectivity issues. There may have also been behavioral barriers to engaging with these platforms. Users may have shied away from participating in these groups

because of the perceived additional burden of time and effort. In this context, a SN platform on WhatsApp was more successful because it was already embedded in people's daily life.

Some respondents stressed that the ease of use of WhatsApp, which is available on mobile phones and does not require a computer or other hardware, helped facilitate uptake. Others noted the importance of an intuitive system. For example, PSI's configuration of DHIS 2 makes all information needed for review and interpretation available with the visualizations, which encourages users to open DHIS 2 to engage with their data. Modeling such systems after intuitive social media sites encourages their use; dedicated resources do not need to be allocated for training on the new systems. The configuration allows users to "like" or "comment" on others' comments (like with Facebook), and to reference specific data points in their comments so that others can easily understand and respond. Using applications like those already used in people's daily personal lives was shown to facilitate the transition of the platform into a professional context, convince workers to use the system, and incorporate it into regular routines and habits. The informality of these SNs may also encourage participation; people may be more comfortable participating in discussions and sharing their questions and issues with team members, which can include both peers and supervisors. The characteristics of familiarity and informality have implications for the platforms' sustainability. Many organizations reported that their SNs would continue to be used and proliferate after project support ended.

Do social networks motivate workers to collect high-quality data and use them for decision making?

Keeping users engaged and motivated to actively participate in discussions was a challenge among all SNs examined. No specific monetary benefits or perks were provided for participation, and there were no repercussions if people did not participate. There were periods of high and low engagement on the platforms, related to interest in the discussion topics, the reporting period, and competing activities. All SNs reviewed experienced problems with users who did not actively participate.

Respondents stated that many users were motivated to participate in the SN because it was beneficial to their day-to-day work. Use of the SN often led to immediate action and problem solving; for example, the redistribution of commodities between facilities, or "on-the-job training" where users assisted other users with questions on how to fill out a specific data entry form. For multi-site projects, a SN helps make connections and provides a venue to express grievances or identify problems with new information systems. Compared to traditional methods, SNs offer a fast and easy way to communicate with other health workers or project staff for troubleshooting, and to hold others accountable to respond as issues are prioritized and magnified in a group setting.

Feeding back performance data through SNs can motivate improved performance by rewarding high performance, fostering accountability, and promoting a sense of competition among teams. For example, the inSupply team in Tanzania often shared performance data through its "Data Monday" briefs, including the performance of the information system itself and overall program performance. This encouraged district representatives to use the information system to ensure that their districts were functioning well so that they were not identified as poor performers. Projects using the DHIS 2 dashboards are also exploring ways to take advantage of the user statistics generated by the system, which tracks the number of interpretations written over time and displays information about top contributors (Figure 4).

Several respondents stressed the importance of visibility as a motivating factor for the use of SNs. Health workers may be eager to receive feedback or recognition for their work, and want to show that they have

expertise. One respondent stated that a person's motivation to generate and share data on a SN may be a way to showcase his/her capabilities and mastery in using a new information system.

Organizations can institute policies, procedures, and managerial strategies to set expectations around the use of SNs. For example, PSI incorporated the use of the DHIS 2 data interpretations feed feature as a performance indicator in its employees' management objectives and plans. In some PSI country programs, staff networked on the system also receive a recurring appointment, setting time aside in the weekly calendar to log on the dashboards and write a comment. In the BID Initiative supported WhatsApp group, data use advocacy messages (e.g., "*better data + better decisions = better health*") are regularly shared across the platform, reinforcing the organization's emphasis on the importance of data use. These "push" factors have motivated people to engage with the SNs and encouraged the routinization of data use behaviors.

What is the role of moderators and leaders in implementing social networks?

No standardized approach was used among the SNs examined to set ground rules. For example, the VIMS WhatsApp groups in Tanzania were restricted from posting social or non-vaccine related conversations; this was reinforced by the moderator and other group members. However, other SNs allowed discussions to be open to any topic, including those of a personal or social nature. Moderators took on different roles in the SNs we examined. Their actions were mostly passive, for example, adding or removing participants, prompting users to participate, and only occasionally introducing topics for discussion. Many respondents stated that data review and interpretation could be improved through more focused discussions led by moderators, who can stimulate conversations with prescribed topics or questions. This can help people focus on certain issues if they were overwhelmed by or not confident in their interpretation of the data, and provide a starting point for discussion.

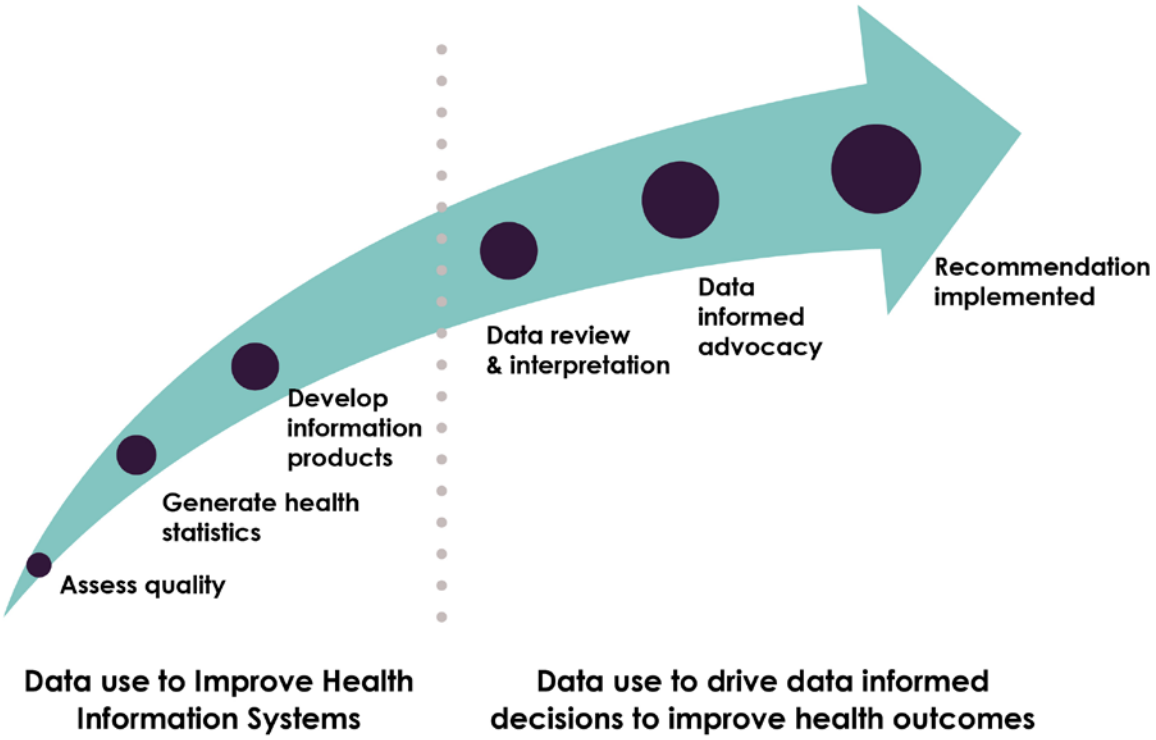
SN participants were often not able to generate syntheses or visualizations of analyzed data to share because of limitations in data availability, data access, or individual capacities and skills. In these cases, analyzed data were disseminated to SN platform participants by project support staff. Projects may therefore need to identify resources to support their staff to conduct analyses, share them, and initiate a discussion of the results. Respondents mentioned other techniques to encourage people to actively review and interpret data. They include investments in data analysis and interpretation skills building for health workers, and visualization techniques to facilitate the interpretation of data in graphs and tables (e.g., inclusion of the target on a graph).

The engagement of senior leadership was also emphasized as an important factor in the success of SNs for data use. If leaders are involved and participate actively in the review of data in a transparent manner, then SN members are more likely to respond to issues raised by them and participate in data review processes.

CONCLUSION

Many of the SNs we reviewed were initiated in response to the introduction of a new data collection tool or management information system. Discussion topics tended to revolve around troubleshooting technological issues and data quality. One of the biggest technical challenges to users actively contributing to the sharing, review, and interpretation of data was the quality of the data. Behavioral issues related to data quality were also identified in our analysis. One respondent stated that personnel working with information systems may be reluctant to share data for discussion and interpretation because of a fear of being questioned about the quality of their data. Those who did share data from the information system tended to be ones with high completeness rates, suggesting that they may only be comfortable sharing data if they are perceived to be high performers.

Figure 6. MEASURE Evaluation's continuum of data use



This challenge is highlighted in MEASURE Evaluation's continuum of data use (Figure 6), which describes two ways in which data are used to improve the functioning of a health system. First, data are used to strengthen health information systems by improving the quality and availability of data. Data needs to be of high quality for consistent and sustained data use to occur. Decision makers are more likely to demand data for use in decision making when they have confidence in their accuracy, timeliness, and completeness. Attempts to review and use data for decision making often lead to the identification of gaps in data quality and availability. Decisions are then made to strengthen health information system processes (such as the generation and dissemination of information products) and outputs (such as data quality). Second, data are used to drive informed decision making to improve health programs and policies.

As SN platforms are introduced to troubleshoot and support the implementation of new health information systems, it is not surprising that in the initial stages, the focus of discussions is largely on data reporting and data quality. It can be expected that discussions on the SN platforms will evolve and grow as information systems are strengthened and institutionalized, thereby generating high quality information that can be further shared, reviewed, and discussed among personnel. However, the availability of quality data and the existence of a platform to discuss and review information does not guarantee data use. The sustained use of SN platforms requires a concerted effort to ensure that these technologies are being employed to facilitate the review, interpretation, and eventually, use of data for decision making. Promising practices and recommendations to support the use of SN platforms to facilitate the sharing, review, and use of data for decision making follow.

PROMISING PRACTICES AND RECOMMENDATIONS

- **The use of known and intuitive software.** Social network platforms for data use are more likely to be successful if they use an existing software that is already popular and known by the target population. This helps avoid challenges associated with the uptake and adoption of new technologies. Users are more likely to actively participate in a SN that is already integrated in their daily lives and incorporated into routines and habits. If new technologies are to be implemented, modeling them on existing social media sites can help increase their intuitiveness and ease of use.

- **Include a range of staff cadres in the SN.** While some segmentation of groups may be necessary to ensure ideal engagement and participation, the inclusion of users from different levels (facility, district, region, etc.), different cadres, and from different partner organizations on the same platform is helpful. It ensures that feedback and answers to questions raised on the SN are addressed in a timely fashion, creating a sense of accountability to respond to issues raised by the group's users. It also provides a mechanism for lower-level staff to advocate for policy and organizational changes, based on the discussions on the SN about data and health outcomes.

- **Expand the role of the moderator to actively instigate and facilitate discussions on the review, interpretation, and use of data.** As information systems are strengthened and are more capable of producing high-quality data, discussions on SN platforms should also evolve to promote in-depth feedback on the review and interpretation of data. These discussions can be supported by moderators tasked to stimulate and guide the conversations, and ensure an open environment where everyone feels free to participate. Effective facilitation of SN discussions can also improve the quality of discussions, e.g., asking open-ended questions, ensuring purposeful discussions, and encouraging critical thinking. Such discussions can help SN users gain confidence and skills in interpretation and generate action points based on the data.

- **Integrate use with capacity building on data analysis and interpretation.** To take advantage of the full range of benefits associated with a SN platform, individual capacities in the core competencies of data use (e.g., data synthesis, analysis, visualization, and interpretation) are required. Social network platforms can be used, in conjunction with other capacity building initiatives (e.g., training, mentorship). Concepts learned can be discussed and skills gained can be practiced on an ongoing basis on the platform.

- **Institutionalize SNs for data use in routine work tasks.** The use of SNs for routine data review, interpretation, and discussion can be promoted by integrating them into regular work activities. Examples we identified included the distribution of weekly one-pagers with synthesized and analyzed data for discussion, and scheduling regular appointments for staff to set aside time in their calendar to log onto a SN and contribute to the sharing of data visualizations or interpretations.

- **Recognize high performers and provide incentives for participation.** Reward high-performing contributors to a SN to increase participation, encourage data use practices, and motivate others to engage. Publicly recognizing high performers for their review and interpretation of data by publishing network-based user statistics ranking top people or teams in a transparent manner, for example, can promote competition and foster accountability among SN users. At the same time, SNs should be used in a way that is not punitive for low performers.

They should encourage open dialogue on performance issues so that everyone feels comfortable and willing to contribute to the discussions.

- **Promote SNs and data use as a key responsibility of all staff.** All staff should be encouraged to participate in the review and discussion of data on a SN platform. Organizations can promote responsibility for data use by fostering ownership of data use tasks by, for example, assigning SN members to propose topics, share data, or lead a discussion about data review and interpretation on a SN platform. Organizations can also employ policies and managerial strategies to ensure that all staff are actively participating on a SN. For example, include the sharing and interpretation of data as a performance management indicator for staff.

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