AIDSRelief Ethiopia

Fostering integration of data demand and information use (DDIU) and continuous quality improvement (CQI) in HIV care and treatment

Background

The data demand and information use (DDIU) cycle involves information collection and analysis, dissemination, information use and data demand to support evidence-based decision making (see Figure 1). DDIU is a concept grounded on information use by decision makers. The continuous quality improvement (CQI) process seeks to improve on an ongoing basis the standard of care provided to HIV patients—and ultimately enhance the overall health care delivery—through a variety of approaches that address a range of health service problems and gaps .

Figure 1: DDIU Conceptual Framework

The majority of the anti-retroviral therapy (ART) health facilities in Ethiopia generate countless reports for submission to various government offices and donors, which is then aggregated for use at zonal, regional, and national levels. However, these facilities largely fail to analyze and use the data they generate to guide subsequent decisions and actions and to improve quality. To address these gaps, AIDSRelief supported DDIU and CQI activities in six health facilities to assist them in taking ownership of their data; to analyze, share, and use their data to drive decisions and quality improvement initiatives in all program areas.

Approach

In order to begin developing a DDIU strategy, an assessment developed by Measure Evaluation was conducted jointly with health facility staff. Based on the assessment, key gaps in data analysis, dissemination, and information use were identified. Subsequently, a joint DDIU/CQI training was carried out for key individuals. The training introduced the conceptual framework of DDIU to participants and provided practical exercises on data trends and interpretation. Technical assistance was also provided to staff as they integrated these

new skills into their work processes. In order to complement the DDIU strategy, CQI teams—consisting of data clerks, adherence supporters, treatment support groups, ART physicians, HIV/ART Nurse Specialist, case managers, and the head of the health facilities—were formed to address various gaps and oversee all quality improvement activities of each HIV care and treatment facility. The small test of change (STOC) model is one approach used for quality improvement to address these gaps, which may be identified through site-generated data indicating low performance (See Figure 2). Examples of STOC activities included monitoring partner testing for increasing prevention-of-mother-to-child-transmission (PMTCT) activity uptake and tracking lost-to-follow-up (LTFU) patients at St. Luke hospital jointly with other community-based treatment support (CBTS) team members. The CQI team also undertook chart abstractions to follow and track patients on ART, as well as LTFU and dead patients. The teams developed an annual quality improvement work plan to track and document the impact of various STOC and patient chart abstraction activities.

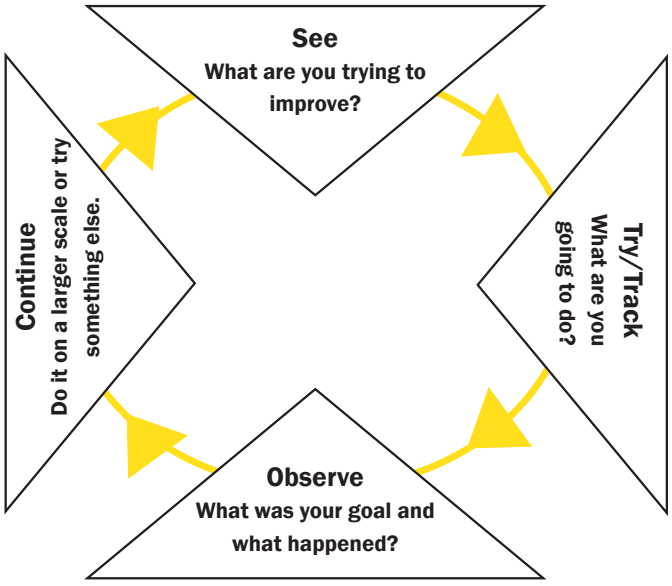

Figure 2: Small Test of Change diagram

Results

The primary focus of introducing the DDIU/CQI initiative at the facility level was to foster evidence-based decision making and data use. The primary data sources for the DDIU/CQI initiative were monthly and quarterly reports generated for each facility through data collection forms, also known as monthly self-assessment forms, which capture comprehensive HIV testing, counseling, care, and treatment data from the various units at the hospital and health center levels. For example, the monthly reporting tool captured the number of patients with an unknown status that attended each unit, the number that received HIV counseling and testing, the number of HIV-positive patients, and the number of HIV-positive patients that were linked to the ART clinic. In addition, provider-initiated counseling and testing (PICT) data that was collected from various inpatient and outpatient units was aggregated by ART data clerks. Along with PICT data, the monthly forms developed by AIDSRelief also captured comprehensive PMTCT data from the antenatal care and labor and delivery units, allowing the tracking of testing and linkage of pregnant women. On a monthly and quarterly basis, the data clerks then tabulated the data to develop trend analysis for each unit and to develop graphs that illustrated the testing and linkage rate over a period of several months. These charts were displayed at the respective units allowing the unit heads and staff to be informed of their monthly performance related to previous months. These initiatives have been beneficial in identifying and addressing key gaps. For instance, hospital management was informed of PICT data indicating low testing rates, and with a subsequent push from hospital administration, the unit's monthly testing rate increased from 8%, (95% CI: 7.3, 8.4, n=10,981)in July, 2010 to 36.1%, (95% CI: 35.2,37, n=7,908) by February 2011.

Along with monthly data, a second source of data for the DDIU/CQI initiative was the CDC quarterly report. The report focuses on HIV care and treatment, providing information on quarterly enrollment, termination, CD4 testing, and ARV regimens among others. The data clerks are not directly involved in generating these reports; however, once generated by AIDSRelief strategic information staff, the quarterly reports were provided to the data clerks, who then used the information to develop and display quarterly data trends on cumulative and current patients on ART, ART enrollment rates, proportional reason for drop out, mortality and lost-to-follow-up (LTFU) rates, cohort baseline and repeat CD4 testing, and average median change among cohorts. These trends were also displayed to familiarize ART clinic staff on their performance.

Data clerks also shared data with clinical staff during ART multi-disciplinary team meetings, during which the information was reviewed and corresponding interventions developed. The CQI teams also utilized the monthly and quarterly trend analysis information generated by the data clerks during weekly meetings chaired by the head of facilities to assess performance and identify gaps that need to be addressed. These meetings sometimes involved the multi-disciplinary team so as to share experiences and minimize duplication of efforts. STOC interventions led by the facility CQI teams have also been successful; for example male partner testing in labor and delivery and Antenatal care in three AIDSRelief-supported facilities increased from cumulative 26% [95%=22.4%-29.6%] to 46% [95%=41.8-50.2] and from 0% to 57% [95%=53.2-61.8] respectively during the STOC intervention period of September, 2010 and February, 2011. The DDIU/CQI initiative also led to progress in tracking and ensuring the return of clients to care and treatment through adherence supporters, community volunteers, and other staff members. Since January 2011, a total of 78 patients have been lost to follow up, of which 16 clients returned to care through the efforts of community volunteers, who also worked to contact the remaining 62 patients at their homes.

Conclusion

DDIU and quality improvement initiatives require a sense of ownership in order to be successful. As a result of DDIU/CQI support, numerous STOCs have been initiated across the various sites as mentioned above. The primary challenge encountered during implementation was that activities increased the workload of the already understaffed and overworked health staff at many health facilities. That said, the joint DDIU/CQI initiative has shown great promise in improving information utilization and addressing key quality gaps at facility level.