May 28, 2010

Data Use Net Colleagues,

Welcome to the last day of the discussion on using dashboards to facilitate data-informed decision making. Please see below for a series of postings that continues the discussion from yesterday about the balanced scorecard and also a moderator description of how indicators were selected for a dashboard used by the AIDSRelief project.

Before we begin today's discussion, I'd like to thank you for all your input throughout the week. It has been an interesting discussion and learning experience. I'd specifically like to thank Stacey Berlow for co-moderating this week. She has provided valuable insight into the technology and development behind dashboard creation. We will be sending out a discussion summary on Tuesday that will capture the key themes from the week. Please feel free to contact me at any time in the future with feedback on this discussion or suggestions for future discussions.

Regards,
Tara Nutley

Data Use Net Moderator

Post #1 Submitted by: Vikas Dwivedi

Organization: John Snow International

Position: HMIS Advisor – Timor Leste

Dear Moderator,

I would like to add on to the Post submitted by Eric Sarriot yesterday, May 27.

I was part of the JHU and IIHMR team implementing the Balanced Scorecard as a performance management tool for Health System in Afghanistan. Based on the approach, we measured performance of the health system in six different domains.

1. Patients and Community,

2. Staff,

3. Capacity of service provision,

4. Service Provision,

5. Financial Systems and

6. Overall Vision.

The scorecard was produced by conducting Health Facility Assessment across the country using standardized tools and instruments. Since 2004 every year provincial scorecard are produced which can be used to track trends over time and show progress. Once the data collection was completed analyzed, we shared the results with national and sub-national levels and supported them in prioritizing areas for improvement.

Later, we were able to analyze data reported on the routine reporting system to produce provincial scorecards which were updated every quarter and use for planning by national and sub-national levels. The ownership was higher as it was prepared using self-reported data. The HMIS scorecard was helpful in routine planning and improving data quality being reported on the HMIS. To view two published articles on this experience visit http://www.cpc.unc.edu/measure/networks/datausenet/dashboards-and-data-use-forum-may-2010/dashboards-and-data-use-archive . If there are any further queries, I will be happy to respond to them. My email address is vikasdw@gmail.com.

Currently we are working in Timor Leste and are trying to promote use of dashboards or display of charts at the health facility level. The health facility is analyzing their performance and using it for performance improvement. The approach is to **Keep it Simple.** As there are no computers available at the health facility level but if we want to see any change that is the level for taking corrective action and performance improvement.

Post #2 Submitted by: Lakhwinder P. Singh

Organization: Indian Institute of Health Management Research

Thanks for your mail Eric and great to hear from you. I agree that our Scorecard that we produce for the MOPH is not a dashboard *per se*. The basic character of a dash board is that it adjusts values all over once you make a change in one value anywhere. In other words it's directly linked to data base. Ours is a kind of static one (and produced on regular intervals) and database is not linked to scorecard.

Post #3 Submitted by: Burnham, Gilbert

Organization: School of Public Health at Johns Hopkins

Hi Eric,

There is a huge drill-down capacity, and we had proposed this to be used in conjunction with a quality improvement component for health systems in this current round, but the MoPH never picked this component up. I think it would take another project with that capacity to do that work. In the meantime I attach a Excel file from the hospitals which we did in 2007 as a trial, which would help hospital directors to see exactly how the scores for different indicators were derived for their particular hospital. We continue to do this with less detail for feedback on hospital performance, and I think this could be a great tool in the hands of a QI program. To see the excel file visit http://www.cpc.unc.edu/measure/networks/datausenet/dashboards-and-data-use-forum-may-2010/dashboards-and-data-use-archive .

Determining What Should Be Displayed on a Dashboard – Example of PMTCT and Exposed Infant Dashboards from the AIDSRelief project

Last December, a group of strategic information advisors, pediatric physicians and program managers came together to train on and critique the new IQCare-PMTCT module. IQCare is a patient management and monitoring system tailored for HIV Care. As part of the new PMTCT modules the group was tasked with identifying the information they wanted to see on the PMTCT dashboard. The dashboard was intended to provide summarized data on the facilities participating in the program that would be accessed quickly and comprehensively. To start the discussion off, the following question was posed to the group: "What information do you need to see in order to inform your decision making?"

The Process

We started by calling out, or brainstorming, dashboard indicators and writing them on poster paper. Each indicator was discussed in terms of how it would be used by healthcare providers or program managers. If the statistic had merit, we then discussed which data fields are used to calculate it and how exactly the indicator should be calculated. This process of debate and marking up poster paper went on for over four hours. Once the team was satisfied that they had a good first draft, a mock-up screen shot was produced along with documentation on the business rules required to calculate each statistic. The following day any remaining issues and inconsistencies were discussed and resolved. This took another several hours. The process was facilitated by the team interaction. Having both data users and data producers working together to discuss, freely exchange and debate any differing opinions was critical to ensuring that the most relevant indicators were identified to inform the highest priority of decisions in the PMTCT context. This process can also be done via iterative conference calls but the process can take weeks or months and the results may not be as good.

The Result

The resulting dashboard is extremely useful to PMTCT management, clinicians and clients. IQCare users can quickly see trends in the facility population that may lead to changes or improvement in operating procedures or patient management approaches. For example, users can determine how many women are on ARV prophylaxis and in their stage in the PMTCT process (anti-natal, labor and delivery, or post natal phases). Taking ARV prophylaxis at the right time is critical for a successful outcome. From the dashboard, healthcare providers can compare the number of women who are taking ARV prophylaxis at each stage and compare it to the number of women who are in the program at each stage. They can then gauge if PMTCT treatment is occurring when it should be. It's also important to know if the women's partners have been tested for HIV and known their status. This is helpful for future family planning and overall support of the mother. The partner information is also displayed by stage.

For Exposed Infants, key healthcare decisions are made up to 24 months of age. The treatment and care provided to infants are very much depended on the HIV status of the infant and whether the infant is breastfeeding. HIV testing must be done at certain intervals and the status confirmed by 18-24 months. An infant's HIV status can be affected by the feeding option of the mother. Monitoring feeding along with the HIV status of the infant population within age groups can inform program managers of trends within the population. Furthermore, receiving Cotrimoxizole for exposed infants starting immediately after birth is a standard of care in many countries. The

dashboard has a drill-down capability that will call out individual infants that have not received Cotrimoxizole to that follow-up action can be taken. Finally, it's also possible to view the entire population of infants in the database, regardless of if they are in the PMTCT program or not. This information is used to manage and monitor infants being treated in both the HIV Care program and PMTCT program.

Commentary

The step of selecting the information to be included in the dashboard is one of the most critical steps of designing a useful dashboard. Too often we see dashboards that are too data heavy or are not related to any specific action or upcoming decision. It is important that time be spent to critically discuss what information needs to be reviewed at regular intervals to inform program management. It is also important that both data producers (monitoring and evaluation specialists, researchers, IT professionals, etc.) and data users (program managers, clinicians, policy makers, etc.) be involved this process.