



The effect of participating in a data-driven learning cycle on data use for decision making in maternal and newborn health. Gombe State, Nigeria.

Background

IDEAS collaborates with the Primary Health Care Development Agency (PHCDA) in Gombe State and implementation projects funded by the Bill and Melinda Gates Foundation to enhance the use of data for decision-making in maternal and newborn health (MNH) at community and primary level, and thereby contribute to enhanced maternal and newborn outcomes. The implementation partners are The Society for Family Health, SAQIP through a grant to PACT Nigeria and Evidence for Action through a grant to MamaYe.

The collaboration takes the form of a series of data-driven learning cycles, each lasting six months, comprising four phases: observe, reflect, plan, act (Figure 1).

1. OBSERVE: This takes the form of data collection from the State PHCDA Health Management Information System; implementation project data from routine monitoring and special studies; IDEAS data from household surveys (annual), facility surveys (6-monthly), birth attendant surveys (6-monthly) and observational studies of delivery care (6-monthly).

The data populate a results framework - a spreadsheet of over 100 indicators, which are used to track change over time.

2. REFLECT: A data-driven learning workshop takes place every six months. In preparation, participants receive the results framework and the raw IDEAS datasets. The workshop provides a context for critical reflection on progress made since the last workshop.

3. PLAN: In light of this critical reflection, participants of the workshop plan steps for the next six-month period or more to identify potential synergies, reinforce areas of good performance and to address poor results.

4. ACT: Participants act in the agreed steps and these form part of the discussions as appropriate in the following workshop.

Technical sessions

To complement the data-driven learning workshops, technical sessions are run to enhance partners' skills and use of data. In these sessions IDEAS has described its surveys and methods, discussed data analysis and interpretation and demonstrated how IDEAS survey data could be accessed. Participants were introduced to EpiData Analysis software and have twice used this to analyse IDEAS data.

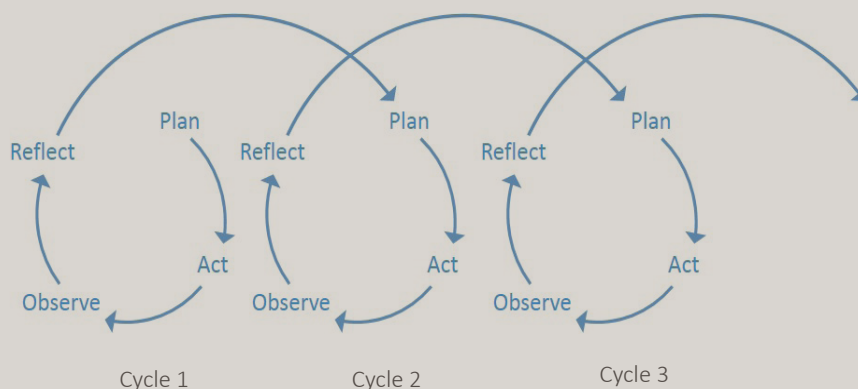
Study design

The value of the cycle is assessed using an approach that draws on developmental research (Engestrom, 2000) and action research traditions (Carr, 1986, Kemmis, 1988, Coughlan, 2005). It focuses on capturing the progressive changes that occur in data use as the cycle evolves and builds on those changes to inform further steps in the cycle and thus improve practice.

Starting in November 2016, we conducted interviews with Gombe State Primary Health Care Development Agency personnel and with M&E officers and managers from each implementation project every six months.

Here we present findings from two rounds of interviews with implementation project managers and key actors in the State Primary Health Care Development Agency.

Figure 1. The data-driven learning cycle. based on Action Research traditions (Carr, 1986).



Interim results

Factors contributing to the effectiveness of the data-driven learning cycle.

GOVERNANCE

All informants stressed that the principal and indispensable agent of the data-driven learning cycle was the involvement of the Executive Secretary of the Gombe State Primary Health Care development Agency (PHCDA). His presence at the workshops and strong commitment underpin a common purpose, which is to support the efforts of the Agency to enhance maternal and newborn health.

The PHCDA reported that the process has facilitated leadership of MNH efforts in the State

“Collaboration has spurred SPHCDA to take the front seat on this project by being very open in dealing with grantees, sharing systemic bottlenecks and seeking grantee and donor support to address some...” (09_manager)

AN ENABLING ENVIRONMENT

All respondents agreed that the workshops are an essential part of the data-driven learning process. They create an enabling environment which enhanced collaboration, improved data quality and generated an accelerated momentum to achieve measurable results. Four factors contribute to this enabling environment.

1. TRANSPARENCY

All partners receive an updated results framework every six months and this is discussed at the workshops. Respondents appreciate the transparency of all data collection, presentation and interpretation processes. It fosters trust in IDEAS and in the data as an accurate reflection of progress in the field and leads to constructive discussions on the best way forward.

“At the data-driven learning workshop data is presented by neutral individuals without a vested interest in presenting their own work as successful. There are open honest and objective discussions.” (09_manager)

Informants appreciated the technical sessions on sampling, data collection, data interpretation (such as understanding confidence intervals) and on how the IDEAS

datasets are constructed. This enhanced understanding enables more people to participate in discussions, raises confidence, generates trust in the data and avoids conflict.

The results framework includes IDEAS household and facility data as well as project data from monitoring or special studies. Respondents value the added insights gained by triangulating these data sources.

demanding users of data.

There is increasing focus on sharing data and joint analysis and interpretation at all levels through training and meetings which focus on understanding and interpreting data and agreeing a way forward.

“Awareness of the importance of data has permeated the teams at all levels, including government, junior colleagues and programme officers (PO) and community stakeholders.” (09_manager)



Photo Credit: IDEAS

“The process makes us think more deeply, we have to digest the knowledge from different sources – the IDEAS data and our own indicators from monitoring data.” (09_manager)

Example

One project was pleased to report that they had completed training in all focus facilities in newborn resuscitation.

However, in a facility-based survey of birth attendant skills, almost none of those who managed the most recent delivery in those same focus facilities were able to demonstrate the skills needed to resuscitate a newborn.

“For us the message is clear: Ticking off a work plan is not enough to see change has occurred. We are going back home with a clear message. We need to work out a way to cascade these skills to other people. (2, M&E officer)

These attitudes have spilled over into the way managers approach internal monitoring data, as they seek to enhance transparency within their projects. Formerly, data and research were in the domain of the M&E teams. Recognising the power of data, managers have sought to share data with a wider constituency and themselves become more active and

2. A SPIRIT OF ENQUIRY

All respondents spoke about the spirit of enquiry at the workshops. When data highlighted a problem, the participants are encouraged to understand rather than blame, and together to find appropriate ways forward.

“(the workshop is) not persecutory, it’s to observe what’s going well and what is going less well. The actual meetings help diffuse tensions and actually use data for decision making, not for arguments. (2, M&E)”

Managers and M&E officers reported that they replicate this collaborative spirit in their own meetings.

3. ACCOUNTABILITY

An open and transparent process has strengthened a sense of accountability to the agency since all projects are working for state interests, to other projects since their work is inter-related and to their own teams in that they are keen to show progress from one workshop to the next. Data are shared and discussed openly at the workshops and projects are keen to demonstrate progress in this forum because they feel accountable to partners. Managers and M&E officers spoke of using data between workshops to ensure that they are on track when they report to partners.

Informants reported that the data-driven learning cycle makes them accountable to partners every six months. It is long enough for projects' work to result in measurable change and short enough to maintain momentum between workshops. The cycle stimulates projects to use their own data to keep track of progress and to build towards the report at the next workshop, rather than waiting for external evaluation.

"... we get data and see the results framework every six months, it's making us within our own projects, hungry for monthly or routine data, to try and see what is happening and ensure that we are making the project better, so that when the six months comes we see progress." (1_manager)

Transparency and accountability to partners has also sharpened M&E officers' focus on data quality. They reported that the high quality of IDEAS data inspires them to raise the quality of their own data. Also, aware of the inter-related nature of interventions, they feel accountable to

meetings were initiated following the workshops to discuss best approaches to dovetailing project and government activities.

"A lot has been improved on. Before the last DDLW, we had data flow but it was not effective. There were issues around communication gaps, LGA knowledge, authorisation by the state... These were not working well. That has been improved. The harmonisation meeting came about after the DDLW." (11_manager)

These meetings have led to collaboration in the field such as projects' supporting LGA authorities' involvement in VHW supervision.

Local Government Authority cluster meetings (comprising project officers, M&E officers from the local government, ward focal persons and primary care coordinators) take place quarterly. Following the DDLW, these meetings include discussions between local government and project officers on the results framework data

is important for training the providers in clinical skills. This demonstrated the need for the SPHCDA to look at the data to strategise deployment ... so you have at least two front people across the 57 facilities. So that's how we use the data to help make decisions." (08_manager)

Three main factors underpin the enhanced collaboration between projects: access to the results framework data, a strong sense of common purpose and open discussions in the workshop.

"DDLW has produced effective collaboration with SAQIP so there is a synergy and seamless operation between these two partners, a real bridge where the role of SAQIP integrates with that of SFH- no rivalry!" (09_manager)

There are many examples of effective collaboration between the two major implementation projects which respondents stated were a direct result of data-based identification of problems, discussions and commitments made in the workshops.



Photo Credit: IDEAS

other projects since the data will be used to make decisions on a wider scale.

4. COMMON PURPOSE

Respondents reported that the results framework and workshop discussion stimulated strategic thinking by providing an oversight of the combined work of all the projects in supporting State interests.

"The workshop has greatly helped us to see things from above rather than being ingrained in the day to day activities, when you see the monitoring data you can really be consumed in the day-to-day operations and the microscopic view, but the workshop helps to see the big picture and how we can relate to other partners." (10_M&E)

Appreciating the big picture has resulted in enhanced collaboration between projects and state actors. Harmonisation

"... local government meetings (are) the venue for us to look at the data together... at those broader meetings we bring in SFH and PACT and MNCH coordinators and other people who are ... looking at data together ... that flows back to the ward people who then pick it up ... take it back to the community... that's absolutely from the DDLW." (8_manager)

Access to the results framework enables the PHCDA and implementation projects to make effective evidence-based strategic planning, such as deployment and training of health professionals.

"Regarding staffing of health care workers in facilities and clinical training, additional analysis of IDEAS data for the 57 wards demonstrated that just about 20 had the full complement of health care workers per facility. This

Example

Discussions at the workshops highlighted that village health workers using SFH communication materials, and facility health care providers using SAQIP communication materials, were giving different messages about the uterotonics women should expect to be given in health facilities. Following the workshop, the two projects worked to resolve this mixed message.

"We were able to resolve that at a retreat. Facilities without good storage facilities, which do not have oxytocin or a high risk of losing oxytocin, can use misoprostol. For me that's collaboration and on top of that we hear about harmonising our VHW programme with the Mothers Groups of PACT. We've had a series of meetings on how to integrate our VHW into the mothers groups of PACT and ... harmonisation of messages ... to maximise their effectiveness." (11_manager)

The discussion also highlighted additional concerns. Some drugs acquired under the Drug Revolving Fund (DRF) were stored under lock and key, while supplies of commodities from SFH were kept on the floor. In response, SAQIP agreed to galvanize ward development committees to build appropriate storage in focus facilities.

Enhanced collaboration between projects, an awareness of the importance of data and accountability to partners prompted projects to pay more attention to data quality.

“Better timeliness – we are aware that there are more players in the game and there is more complexity in the interventions. Our results are inter-related so we want to have information that others can use at the right time. The data will be used to make decisions on a wider scale.” (10_M&E)

Additional effects on management and M&E within projects

Participating in the data-driven learning cycle has highlighted the importance of project personnel at all levels understanding their own data for their programmatic work. M&E officers have been training field workers in the value and utility of high-quality data and in data interpretation for decision-making. They anticipate that greater understanding will enhance a sense of responsibility and empowerment.

The training is reported to have enhanced data flow and the accuracy, completeness and timeliness of data. Project teams now routinely examine the data internally and at monthly harmonisation meetings attended by the M&E specialist team and Gombe state and LGA level staff. Respondents spoke about the improved data being more useful for project management.

IDEAS data are also used as an instrument of project refinement between workshops. Referring to discussions on how to manage an underspend, one M&E officer reported:

“People made lots of suggestions as to where to spend the money. We went back to the data. We “think” we know where the weaknesses are – KMC-modified spaces, etc...the argument became simple. So, rather than people saying ‘I think...’ we brought out the data, which was from an independent body.”(02_M&E officer)

The workshops have enhanced collaboration between managers and M&E officers. Whereas formerly, data was in the domain of the M&E department and not always easily accessible by managers in a usable form, the approach is now more orientated towards a partnership driven by managers and M&E officers but with strong involvement of field staff.

Find out more

Contact Krystyna Makowiecka (Krystyna.Makowiecka@lshtm.ac.uk), leading this study for IDEAS; or Dr Nasir Umar (Nasir.Umar@lshtm.ac.uk), IDEAS Country Coordinator, Nigeria

Sustainability

In the past there have been attempts to create a forum for collaboration but this was found to be difficult to sustain. Respondents were overwhelmingly supportive of the data-driven learning cycle and recognised the role of good governance and the values fostered in the workshops, including transparency, accountability and common purpose.

“This is one project that has made me think the impossible is possible. In the past I’ve worked with a consortium of implementing grantees and within that consortium different people are responsible for different parts of the framework, but at the end of the day you couldn’t really see the complete picture and the overall outcome – you are only looking at what you are contributing to the system and before you know it you are fighting with other partners on the issue of attribution. This system that harmonises our framework is good and is something that we should take forward from here.” (01_manager)

Respondents acknowledged that the success of this work to increase the use of data for decision making depended, in its current format, on external funding and exceptional governance. Future interviews will focus further on sustainability.

About the IDEAS project

IDEAS aims to improve the health and survival of mothers and babies through generating evidence to inform policy and practice. Working in Ethiopia, northeast Nigeria and India, IDEAS uses measurement, learning and evaluation to find out what works, why and how in maternal and newborn health programmes.

IDEAS is funded between 2016 and 2020 by a grant from the Bill & Melinda Gates Foundation to the London School of Hygiene & Tropical Medicine.

ideas.lshtm.ac.uk

[@LSHTM_IDEAS](https://twitter.com/LSHTM_IDEAS)

Prepared by Krystyna Makowiecka on behalf of the IDEAS project. The IDEAS team wishes to acknowledge all partners working with IDEAS for qualitative research in Nigeria, and all the individuals interviewed.

References

- BATES, R. 2004. A critical analysis of evaluation practice: the Kirkpatrick model and the principle of beneficence. *Evaluation and Program Planning*, 27 341–347.
- BRAUN, V. C., V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- CARR, W. A. K., S 1986. *Becoming critical: Education, Knowledge and Action Research.*, Basingstoke, Falmer Press.
- COUGHLAN, D., & BRANNICK, T. 2005. *Doing action research in your own organization.*, London, Sage Publications.
- ENGESTROM, Y. 2000. From individual action to collective activity and back: Developmental work research as an interventionist methodology. In: P LUFF, P, HINDMARSH, J., AND HEATH, C. (ed.) *Workplace Studies.* Cambridge: Cambridge University Press.
- HELITZER-ALLEN, D. L., ALLEN H.A. 1994. *The manual for targeted intervention research on sexually transmitted illnesses with community members,* AIDSCAP, Family Health International.
- KEMMIS, S. A. M., R. (EDS) 1988. *The action research planner* Belmont, Victoria:, Deakin University.
- ROUSE, D. 2011. *Employing Kirkpatrick’s Evaluation Framework to Determine the Effectiveness of Health Information Management Courses and Programs.* *Perspectives in Health Information Management*, 8.

London School of Hygiene & Tropical Medicine

The London School of Hygiene & Tropical Medicine is a world-leading centre for research and postgraduate education in public and global health, with 4000 students and more than 1300 staff working in over 100 countries. The School is one of the highest-rated research institutions in the UK, and was recently cited as one of the world’s top universities for collaborative research.

www.lshtm.ac.uk

London School of Hygiene & Tropical Medicine

Keppel Street, London, WC1E 7HT, UK
t +44 (0)207 927 2871/2257/2317