

A Cost-Effective and Sustainable Approach for Strengthening the Capacity of Routine Health Information System Personnel in Mali

Until recently, the Ministry of Health (MOH) in Mali did not have a specific training program to provide staff with cost-effective capacity building to manage and strengthen the country's routine health information system (RHIS). No formal mechanisms existed for recognizing and engaging the RHIS staff or to provide them a career path. In addition, most training on RHIS were organized in institutions in neighboring countries, and participation in such regional trainings typically cost more than Mali could afford.

The lack of personnel highly skilled in maintaining and managing an RHIS posed a challenge to overall health system performance. The RHIS comprises resources and tools to support data collection, processing, analysis, and interpretation—all of which are essential for producing high-quality data to inform decision making.

With these factors in mind, MEASURE Evaluation approached the University of Bamako School of Medicine's School of Public Health to discuss how to provide such training in country. Discussions began in early 2017 and led to the creation of a university degree on RHIS in the Department of Teaching, Research in Public Health (le Département d'Enseignement et de Recherche en Santé Publique, or DERSP), using an RHIS curriculum developed jointly by MEASURE Evaluation and global partners, including several universities.

Challenges

Numerous challenges to overcome included the following:

- A lack of experience within the School of Public Health in organizing short courses
- A lack of experience within the School of Medicine in teaching RHIS
- The need for a formal agreement between MOH staff and the School of Public Health
- The need for donor buy-in to support the partnership

Strategies Developed

The process of developing training to strengthen Mali's RHIS was divided into planning and operational phases to introduce the RHIS curriculum to the School of Public Health.

Planning

- After initial contact with the School of Medicine, MEASURE Evaluation proposed the RHIS training in its 2017 work plan to get USAID support and buy-in.
- MEASURE Evaluation supported one staff member from DERSP to participate in a RHIS training of trainers (TOT), facilitated by MEASURE Evaluation in Ghana (July 2017).
- MEASURE Evaluation sponsored three staff from the National Health Directorate (la Direction nationale de la santé, or DNS) to attend the first RHIS training at the Centre Africain d'étude supérieure en gestion (the African Centre for Advanced Studies in Management, or CESAG) in Dakar, Senegal (January 2018).



Participants in the first RHIS course in Bamako.

- A committee guided preparation of the RHIS training course. The committee included staff from MEASURE Evaluation, DNS, CPS (la Cellule de Planification et Statistique Secteur Santé—the Planning and Statistics Unit), ANTIM (l'Agence nationale de telemedecine et d'informatique médicale), and a team from the DERSP. A designated RHIS focal person led the discussion and reported back to the School of Medicine, while serving as a liaison between all the entities.
- The team developed documentation to elevate the course to a university diploma. This involved meeting requirements to expand the course to three weeks (for a total of 100 course hours), identifying a team of 28 trainers, and defining potential target audiences—primarily MOH staff working on RHIS and public health students at the School of Public Health, as well as eligible persons from other countries.
- The decision to create a two-year university diploma was approved in January 2018.
- The School of Public Health launched online registration and established a team to review applicants.

Operational

MEASURE Evaluation conducted a TOT workshop in April 2018 for staff from:

- DERSP of the School of Public Health (18 participants, including one woman)
- The Mali MOH (five from DNS, including one woman; four from CPS, and one from ANTIM)

This TOT was especially important as a means to pre-test and finalize the course for future use by the university. During the TOT, trainees worked in groups of three and were assigned different modules according to their backgrounds. The groups had staff from the School of the Public Health facilitate so that they could prepare and present to all potential trainers. They assessed their own performance before getting peer critiques and feedback from co-facilitators. The feedback focused on the attitude of the trainer during delivery, time management, mastery of the content, transitions between presentation slides, transitions between modules, and links between different modules. Recommendations on how to improve the content and presentation followed. Having 12 days to implement the

TOT was essential for its success, as it both strengthened the capacity of the future RHIS trainers and allowed for needed course revisions.

The first round of training was held in April and May 2018 at the School of Public Health. Ten facilitators from DERSP who had participated in the TOT facilitated the training, using lectures, case studies, group work, take-home exercises, field work (using health management information system supervision tools), and presentations. Overall, 31 participants from various levels of the Mali MOH and staff from partners attended. The participants were primarily regional, district, and health facility-level managers and one national-level data manager. Training participants were supported by implementing partners (eight by MEASURE Evaluation and five by MEDIC). The MEASURE Evaluation team provided technical support to the trainers throughout.

Given the high interest for the course (44 applications), DERSP then organized a second course. The second round of RHIS training was held in July 2018 at the School of Public Health. Twenty-seven participants attended. They were data managers from health facilities, districts, regions, DNS, and from projects. MEASURE Evaluation supported 11 participants; Catholic Relief Services and Aga Khan Foundation supported one each; and the Hospital of Mali supported two. Ten of the 27 paid their own way.



Dean of the School of Public Health, Professor Seydou Doumbia, awards a diploma to a participant in the RHIS course.



MEASURE Evaluation Mali Chief of Party Aminata Traoré Koita congratulates a course participant on completion of the RHIS training.

Difficulties and solutions

- Not all facilitators attended training sessions in the first round, and it was suggested that the program insist on full attendance by the facilitators to allow them to fully understand the material. The second round of training was done entirely with core trainers from the School of Public Health, who attended regularly in high numbers.
- It was difficult to ensure that facilitators were able to collect experiences shared by participants—feedback to enrich subsequent sessions of the course. A suggestion was made to the head of DERSP to systematically collect good examples of attendees' and facilitators' experiences to improve further trainings. Relevant field experiences shared during the second round of training were collected to enrich subsequent rounds of training.

Results/outcomes

Initially, the objective was to organize one session with 20 participants, with MEASURE Evaluation supporting 15. Ultimately, two sessions were held, with 58 participants trained. The course succeeded for a number of reasons.

The course was affordable, an indicator that it may be financially sustainable.

- Affordability allowed implementing partners to support participants and for individuals to pay out of pocket. In two rounds of training, half of 58 participants paid their own fees and half benefited from support from implementing partners (25) and the Hospital of Mali (3).
- Course affordability fostered the demand for the RHIS course.
- All direct training expenses were covered by participant fees.

The training approach offered a way to improve course content.

- Practical sessions during the TOT allowed the opportunity for substantial facilitator involvement and led to suggestions for improvement.

- Discussion of RHIS field experiences allowed participants and facilitators to share ideas and learn from each other.
- The field work component offered an opportunity to explore further applications of concepts learned in class, and take-home exercises brought participants together for experience sharing and cross-fertilization.

The course created a pool of in-country expertise in RHIS.

- An RHIS-competent core group of 28 trainers (DERSP, MOH) is now available in Mali to provide RHIS training for Malians and international students and professionals.
- The TOT allowed DERSP to build a foundation to conduct the RHIS training and to sustain it. The school now has a critical mass of staff trained to deliver the RHIS course. Together, faculty members and MOH staff who work on RHIS can be involved in teaching the next sessions and thereby ensure the sustainability of this RHIS curriculum as part of the new university diploma program.
- Participants performed well in their final exam in both rounds of training.¹

Conclusion

Participants acquired knowledge of RHIS, skills, and competencies to help strengthen the RHIS and ultimately improve public health decision making in Mali and regionally.

This RHIS training helped establish a strong link between MOH staff in Mali who work on RHIS and the School of Public Health—a relationship likely to improve local capacity of MOH staff and foster the motivation of RHIS staff.

The demand for the RHIS remains high and the School of Public Health is considering organizing a third round of training in September 2018.

¹ For the first round, the mean score was 15/20 with highest and lowest scores being 18.11 and 11.87/20, respectively. For the second round, the mean score was 13.7/20 with highest and lowest scores being 16.6 and 11.2/20, respectively.