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*Better Information
Better Decision
Better Health*

*Better, Bigger, Faster:
Working Together
Towards the Achievement
of the Millennium
Development Goals*

Regional experiences - Community Health Information System for family-centered health care: scale-up in Southern Nations, Nationalities and People's Region.

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COMMUNITY HEALTH INFORMATION SYSTEM FOR FAMILY-CENTERED HEALTH CARE: SCALE-UP IN SOUTHERN NATIONS, NATIONALITIES AND PEOPLE'S REGION

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Summary

The Community Health Information System (CHIS) is a family-centered health information system designed for the health extension worker (HEW) to manage and monitor her work in educating households and delivering an integrated package of promotive, preventive, and basic curative health service to families. Initiated in October 2010, the roll-out of CHIS was completed in the Southern Nations, Nationalities and People's Region (SNNPR) within 2 years. Region's strong leadership coupled with community mobilization and involvement of partners ensured smooth implementation of CHIS, bringing about a positive change in the management of health services at community level. SNNPR is now starting to harvest the benefits of CHIS. The HEWs are using the system to target pregnant women and children for services, and with the tickler file system they are better equipped to identify defaulters. The managers at woreda, zonal and regional levels are able to access the health post data and using it for planning and monitoring.

The scale-up of CHIS has not been without challenges, including remoteness of some health posts with subsequent difficulty in ensuring regular supervisory visits and continuous support, and persisting parallel reporting systems with subsequent over-burden on HEWs. CHIS has a lot of potentials; however, it needs to be properly scaled-up, owned and used for realizing its potentials and ensuring its sustainability. This article aims at describing the scale-up of CHIS in SNNPR and documenting achievements and challenges, sharing lessons learned that can be useful in CHIS implementation in other regions.

1) Introduction

The Health Extension Program (HEP) is a package of preventive, promotive and basic curative services targeting households to improve the health status of families with their full participation (FMOH, 2007). In the context of HEP, the Federal Ministry of Health (FMOH) designed Family Folder as a comprehensive data collection tool for documenting family-centered HEP services provided by the Health Extension Workers (HEW) (FMOH, 2010).

The Family Folder is the central piece of the Community Health Information System (CHIS). The CHIS is a component of the reformed Health Management Information System (HMIS) designed by the FMOH according to the principles of standardization, integration and simplification to provide information for decision making (FMOH, 2008).

The FMOH puts high emphasis on implementing CHIS nation-wide. To that end, the FMOH is leading the CHIS roll-out in the country and has engaged various partners – mainly John Snow Inc (JSI)/MEASURE Evaluation HMIS Scale-up Project, Tulane University, Italian Cooperation and World Health Organization (WHO) - in supporting the scale-up in the regions.

By July 2012, CHIS was implemented in 3,952 Health Posts (HP) representing about 25% of the HPs in the country. Of them, 2,620 HPs were in the Southern Nations, Nationalities and People's Region (SNNPR), 1,170 in Oromia Region, 128 in Amhara Region and

34 in Dire Dawa (FMOH, 2012). By April 2013, 3,387 HPs in SNNPR are implementing CHIS. This article aims at describing the scale-up of CHIS in SNNPR and documenting achievements and challenges, sharing lessons learned that can be useful in CHIS implementation in other regions.

2) Design of the Community Health Information System

The initial design of Family Folder was done in 2008. However, in the absence of clear-cut implementation guidelines and training manuals, the efforts to scale-up the CHIS nation-wide faltered. In 2010, the FMOH set up a technical working group - comprising of John Snow Inc (JSI)/MEASURE Evaluation HMIS Scale-up Project, Tulane University, Italian Cooperation and WHO – that, under the lead of FMOH, conducted a pilot testing in two woredas in SNNP and Amhara Regions, and finalized the health extension supervisors training manual and implementation guideline (Lemma et al., 2010). The salient points that were determined from these experiences included procedures for numbering households, recording and updating folders, using a Master Family Index and a Field Book, and refining the tallying and reporting procedures (FMOH, 2010; Lemma et al., 2010).

According to the finalized CHIS guidelines, each family is provided with a Family Folder which is kept at the HP.

Information on household identification, family members and household characteristics such as availability of latrine, hand washing, waste disposal, drinking water facilities and long lasting insecticide treated bed-nets are recorded on the Family Folder. Health Cards and Integrated Maternal and Child Care Cards are kept inside the Family Folder.

The household identification is based on registration and numbering of all the households in the catchment area of the HP. Within a kebele, the household numbering is done village-wise. To facilitate easy identification of the household to which a person coming for service belongs to, a Master Family Index (containing list of household heads arranged in alphabetic order) is maintained at the HP.

In order to ensure recording and reporting of service data as well as health and disease data, the HEW also maintains a monthly tally sheet on which household numbers of the clients/patients who received services is recorded against the type of service provided.

During her field visit, a HEW is supposed to carry the Family Folders of the households she plans to visit. A Field Book is used for cases that are attended by HEW during the field visits or outreach for which the HEW did not carry any Family Folder.

3) Implementation of the Community Health Information System in Southern Nations, Nationalities and People's Region

SNNPR has 14 zones, 152 woredas, 4 special woredas, 1 Regional City Administration, 23 hospitals, 657 health centers, and 3,835 HPs. The Regional Health Bureau (RHB) is leading the CHIS implementation process in the region, with the support of MEASURE Evaluation HMIS Scale-up Project which is funded by USAID.

The scale-up process was initiated in October 2010 by providing orientation and sensitization of regional, zonal and woreda health managers. This was considered as the essential first step to ensure ownership and support for CHIS at all the levels of health administration within the region. A pool of facilitators in SNNPR was created by providing training of trainers (TOT) to Health Extension Program (HEP) coordinators from zonal health departments and woreda health offices and to HEW supervisors from the health centers. Since the HEP coordinators and HEW supervisors are the ones in charge of supervising HEWs, it was considered pertinent that they should be the ones in charge of training the HEWs (Figure 1). In this way the HEW supervisors and their managers would be able to provide relevant technical support to the HEWs during their subsequent supervisory visits.



Figure 1. Training of Health Extension Workers.

By November 2012, all the HEWs in 3,825 rural HPs in SNNPR have been trained and started implementing CHIS. The remaining 10 HPs are located in pastoral areas. CHIS implementation in those areas is pending FMOH decision on the design and operational guidelines for pastoral areas. Out of the 3,825 HPs in agrarian areas, 3,817 HPs have had submitted the monthly CHIS reports at least once after starting CHIS implementation. By April 2013, 3,387 HPs were continuing CHIS implementation, while the remaining HPs faced various difficulties to continue with the implementation. Some of the constraints faced include the remoteness of the HPs and thereby health centers being not able to carry out regular supervisory visits and provide continued support, difficulties in ensuring continued supply of printed tally sheets, emphasis by some agencies/departments on continuing use of various service registers resulting in over-burden on HEWs, and some of the HPs not being fully functional yet. Among the root causes of such drop-out in CHIS implementation are high staff turnover and dwindling commitment of the health center and woreda health office managers to CHIS. To address these root causes, the Regional Health Bureau is providing CHIS re-orientation to the health center and woreda health office managers, along with refresher training of the HEWs. Secondly, a yearly supply of CHIS tally sheets is being printed and distributed to all the HPs in the region.

Involvement of the community

The first activity to initiate CHIS implementation was mobilizing volunteers from the community to conduct house to house visit, provide each household with a unique household number, and register the families on the Family Folder. For doing that, the woreda civil administration and kebele cabinet were involved by the HEWs.

In the words of one HEW in Butajira:

“After receiving the training, the first thing we did was to inform the kebele administration of the importance and use of the Family Folder. Next we trained four community health volunteers to help us with household numbering and collecting data on the Family Folders.” (MEASURE Evaluation, 2012a).

Another HEW stated that:

“We met with the cabinet, kebele administrator and village leaders and informed them about the CHIS training. The leaders gave directives to the community to cooperate and provide the necessary information.” (MEASURE Evaluation, 2012b).

These statements are reiterated by the Kebele Administrator of Agemsenado Kebele:

“We mobilized the community for data collection. We went ahead of the health extension worker to notify the community that household information collection is taking place and to be available.”

To ensure correct recording of family data on the Family Folder, which is in English, translation of the Family Folder was done in Amharic and printed on plain paper. Copies of these translated Family Folders were provided to the HEWs and the volunteers as a reference for easy recording of the family data of Family Folders. Data from the Family Folders were later used to prepare the Master Family Index and for compiling the kebele profile. The kebele profile provides summary information on number of households in the kebele, its population, age distribution, and households with latrines and safe drinking water.

The Family Folders are filed on a wooden shelf. They are arranged serially by household number and by village number. Family Folders belonging to families in one village are filed separately from those of other villages according to the village’s identification number. Such filing helps in easy retrieval of the Family Folders. The Master Family Index, which is a village-wise list of the household heads in alphabetic order helps identify the household number of the family, and thereby retrieve the Family Folder from the shelf.

Use of Tally Sheet

The HEWs use a tally sheet for recording the services they provide daily (Figure 2). However, the recording in these tally sheets is not done in a conventional manner,

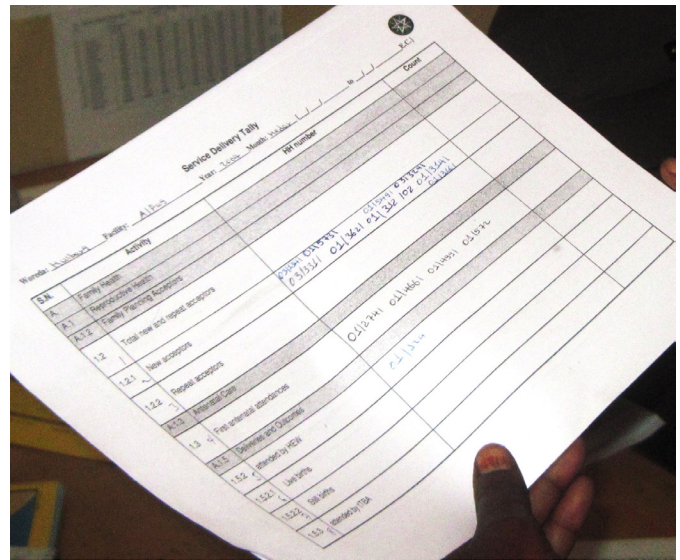


Figure 2. Tally Sheet with household number recorded against the services provided.

i.e. putting stroke marks for each client served. Rather, the household number of the client is written in the row against the service provided by the HEW. This has many advantages. By looking at the household numbers, the HEW can identify the households that received a particular service, e.g. antenatal care or pentavalent immunization. She can use that information to plan her follow-up visits. Supervisors can assess the data quality by cross-checking the recording on tally sheet with the health cards kept in the Family Folder by picking the Family Folders using the household numbers recorded on the tally sheet.

The Tickler File System

In places like Hadiya, where CHIS implementation started early, the HEWs introduced innovative ideas to separate out the household numbers of clients who needed follow-up services, like family planning or pregnancy care. In some HPs, the HEW had wall-hanging pouches made of cloth where they would put small pieces of paper with household numbers in different pouches marked as Family Planning, Pregnant Women, Immunization etc. Others were writing the household numbers of clients who need follow-up on their notebooks. In order to standardize this system of identifying the follow-up clients, a simple form of the Tickler File System was introduced (Figure 3).

The Tickler Box has twelve slots for twelve months of the year (Figure 4). The Health Cards of the clients who need follow-up are put in the month’s slot according to the month when the follow-up service is due. With this system the HEWs are now able to review the cards of the clients who should be followed up during the current month and accordingly communicate with them either through community volunteers or house visits. If at the end of the month the health cards are



Figure 3. Filing of Family Folders by village and Health Cards arranged in Tickler File.



Figure 4. Tickler Box.

still remaining in that month's slot, the HEWs know the clients who have defaulted; therefore they can take appropriate measures to get to those clients.

Regarding this tickler file system, one HEW said:

"Previously we didn't know who would come and when for family planning services because of the workload, but now we know." (MEASURE Evaluation, 2012c).

The results are apparent. For example, in Dilla-Zuria Woreda of Gadeo Zone, the HEWs are seeing the benefits of using the CHIS and the Tickler File System for reducing immunization drop-out. During the third quarter of 2004 EC, 842 infants received the first dose of pentavalent vaccine vis-à-vis 767 infants receiving their third dose, indicating a gap between the first dose and third dose. Since getting training organized by the Gadeo Zonal Health Department in collaboration with the SNNP RHB and the HMIS Scale-up Project, the HEWs in Dilla-Zuria Woreda could easily identify this dropping out of the children, reaching out to the households and advocating for continuity of care. As a

result, in the Ethiopian month of Sene (June–July 2012) alone, 752 children were vaccinated by the HEWs with the first dose of pentavalent vaccine and 986 children received their third dose, indicating an improvement in vaccination services from the HPs (MEASURE Evaluation, 2012c). Analysis of the CHIS data for the months of Meskerem to Tir 2005 EFY entered in the electronic HMIS (eHMIS) system in SNNPR shows that about 48% of the pregnant women who had received their first antenatal visit at the HPs have returned for their fourth antenatal visit; 85% of women who had received their fourth antenatal visit at the HP have been also attended by HEWs during delivery, and 99% of these births attended by the HEWs are live births.

4) Discussion and Conclusion

The scale-up of CHIS in SNNPR is seen as a success story. Within the short period of about 2 years, the vast majority of the HPs in the region are implementing CHIS, using the Family Folders for targeting health services and regularly submitting monthly reports. A number of factors helped towards this achievement. The commitment of the RHB leadership was crucial and, under the RHB lead, support was provided by MEASURE Evaluation HMIS Project. Building consensus by FMOH on operational guidelines and piloting them in collaboration with other partners helped in standardizing the procedures for CHIS implementation. Advocacy at woreda civil administration and kebele council levels helped mobilize community volunteers to carry out household numbering and profiling. For the sustainability of CHIS, it is also important to strengthen the community ownership of, and demand for, CHIS in general, and Family Folders in particular. One approach to that end would be to further sensitize the kebele councils and woreda administrators on the importance and use of the Family Folders, especially in the context of the Health Development Army.

Important programmatic data is becoming available to the managers for monitoring and management decision making. For example, as mentioned above, data from HPs is available to show that a high percentage of women who are receiving their fourth antenatal visit by HEWs are also attended by HEWs during delivery. In the absence of availability of the previous years' data, comparisons are not possible for understanding any change in the performance of health services at community level. However, with CHIS in place, SNNPR has good baseline data for future use in planning and monitoring. In fact, during the EFY 2005 Woreda-based planning, SNNPR is able to directly access HP data using the eHMIS and use it for setting the indicator baselines.

The use of tally sheet, with recording of the household number against the services provided by the HEW, is proving very valuable in assuring data quality. The

supervisors are now able to cross-check the data recorded on the tally sheet with the records in the Family Folder. Another potential use of this recording household numbers on the tally sheet is that it can provide the list of children or mothers who have received a particular service in the past months. This can help the supervisors to visit the household and follow-up with the members regarding the services provided by the HEWs. If job-aides or service checklists are used by the HEWs for systematic check-up and treatment of childhood illnesses or pregnant women, the supervisor can identify those cases from the tally sheet and review the completed checklists for verifying quality of services provided.

The implementation of CHIS in SNNPR has not been without challenges. Developing skills of HEWs on how to properly record data on Family Folders and, in general, use the CHIS, has been a big challenge. One of the greatest hurdles to acquiring the skills by HEWs has been the language used in the Family Folder and the Health Cards. All these are in English and many of the HEWs are not comfortable with that. In response to this difficulty, the RHB translated the Family Folder and Health cards in Amharic and provided every HEW with a printed copy of the same. This has greatly enhanced their understanding of the system as a whole. Similarly, tally sheets were translated in Amharic and provided in adequate supply to every HP.

Continuation of parallel recording and reporting requirements imposed by various departments and partners is threatening the sustainability of CHIS. Various registers and reporting formats are still seen in many HPs, even though CHIS is able to provide the necessary data or be adapted to accommodate additional information needs. Other challenges in scaling-up CHIS were the difficult access to some health posts and the non-continuous supply of printed tally sheets.

One important aspect of CHIS implementation and sustainability is the access to electronic system for data entry, aggregation, transmission and analysis. Every HP generates a huge number of data every month and, multiplied by the number of HPs in a region, the amount of data that is generated by CHIS is simply not manageable manually. The eHMIS in SNNPR has proved to be very handy in allowing the program managers to access monthly data of every individual HP. The system also allows monthly comparisons and aggregation of data at the Primary Health Care Unit level which comprises of a health center and five to ten HPs.

The success of CHIS can be highlighted with the words of a HEW in SNNPR: “*CHIS has helped build trust in me (the HEW)*”. CHIS has lot of potentials; however, it needs to be properly scaled-up, owned and used for realizing its potentials and for its sustainability.

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