

THEME ONE: MANAGEMENT OF HEALTH SERVICES**DATA FOR THE BOSS: EVIDENCE OF NON-USE OF HEALTH MANAGEMENT INFORMATION SYSTEM (HMIS) DATA IN BUFUMBIRA EAST HEALTH SUB-DISTRICT, KISORO DISTRICT**

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Abstract

A goal of the health management information system (HMIS) is to provide reliable, comprehensive information about the health system to health managers, to enable them take decisions that will improve the services provided to the consumers. Whereas HMIS quality concerns like the accuracy, completeness and timeliness of reports have been more commonly assessed and reported about in a number of studies, relatively less documentation is found on the actual utilisation of the information generated from HMIS reports. Yet, the HMIS is not an end in itself but just a tool to inform managers and enable them take informed and timely decisions. This study assessed the utilisation of HMIS data for decision making at the grassroots level in Bufumbira East Health Sub-District (HSD) of Kisoro District. It was found that HMIS data were not used for decision making at the point of collection and that the HMIS was dogged by many problems like few dedicated staff. The staff lacked sensitization on the HMIS and were not trained in completing the reports and data analysis. Lower level units submitted their data directly to the district bypassing the HSD. The HMIS was not planned for and lacked funding and stationery. HMIS functioning was not a subject for support supervision and there was only verbal feedback from the district level. It was recommended that the normal flow of HMIS data through the HSD level be re-established and that support supervision on the HMIS be instituted. Planning for the improvement of the system would ultimately lead to its utilisation.

Introduction

A Health Management Information System (HMIS) is the set of people and resources used to convert health data from internal and external sources into usable information. It should communicate that information in an appropriate form to managers at all levels of the health system to enable them to make appropriate decisions. To be of use, information must be: timely, relevant, accurate, as detailed as needed, as frequent as needed, as cheap as possible and must be understandable to recipients and users. A HMIS has at least three broad components: the input (data), the processing component in which data are transformed into output information, and the output (information for users). In a good HMIS, data collection should conform to the data requirements of the users (only relevant data) and to the available processing

capabilities. The information collected should be simple to obtain. Only the minimum required information must be collected so that analysis can be done quickly. Feedback to the providers of the health data is an essential component of any reporting system. It recognizes the source health units as part of a wider team. It also indicates to the unit staff the importance of data collection. Most health units would appreciate a written feedback with comparative information from all health units in the district (Stefanini, 1995). However, many health information systems are characterized by a one-way upward flow of information to central level. If no feedback is given to the providers of data, or if the form in which the feedback is provided is too technical to comprehend, they will not be motivated to put any effort into their work and the quality of data will be poor.

Analysis should not be limited to simply adding up numbers whether in the clinic or at the district, regional, provincial or central level. It should include coverage estimation for the services offered, comparing performance with targets at all levels, management of the health facilities, preparation of monthly, quarterly and annual reports. It should also include projections of what to expect in future.

For effective planning and wise use of resources, health planners need to know the scope of the problem they are dealing with for example the number of people who use the services offered, the most common ailments affecting people in the service area and which ones would be most cost-effective to tackle. Without having a basis of sound information, health planners run the risk of arbitrary management, with no evidence-based strategy or informed reasoning for the decisions they take. This leaves a gap between planning and implementation. Many health facilities lack information on the size of the target population as well as inputs and outputs in the catchment areas and therefore cannot calculate their service coverage.

An objective of the health management information system (HMIS) in Uganda is to provide an integrated system of relevant and functional information on a routine basis. It was designed for use at the health unit, health sub-district (HSD), district and national levels for planning, managing and evaluating the health care delivery system in order to continually improve the quality of health care in Uganda (Ministry of Health, 2001). The current HMIS takes into consideration all the components of Uganda's National Minimum Health Care Package (UNMHCP). It serves as a monitoring tool for the Health Sector Strategic Plan (HSSP) as well as being part of the national Integrated Disease Surveillance (IDS). The information collected is functional and is meant to be used immediately even at the point of collection for management decision making. Lower levels should not wait for feedback on the information collected from higher levels before taking relevant action.

To ensure accuracy and consistency, the Ministry of Health produced and distributed manuals describing the collection, compilation and use of the data to all health units. To ensure timeliness in reporting, deadlines for submission of reports were fixed for each level. To ensure relevance, indicators were developed to address some management needs of the health unit and included in the system. To ensure timely use of the information, the health unit, the HSD and the district should use the information as they also report it upwards. Some indicators of performance were

also included in the manuals for use by the different levels to reduce the dependency on feedback. The health units and districts were provided with database books to record and monitor aggregated information in one central place.

Information from the HMIS is supposed to be used during the formulation, monitoring and evaluation of the annual health unit, HSD and district workplans. Reports are compiled at health unit level and forwarded to HSD level. At that level, reports from individual health units are compiled together with that of the HSD headquarter unit and forwarded to district level from where further aggregation is done before being forwarded to the Ministry of Health's Resource Centre for analysis. Selected information is fed back to the district health committee, where it is used in planning, monitoring and evaluating progress towards both district and national objectives. However, a study in Kitovu, Kisubi and Nkonkonjeru hospitals indicated that the HMIS was functioning poorly. The registers contained raw data which were not aggregated. Indicators were not calculated and analysis was done only for parts of the hospitals (Koot, 2000)

Kisoro district, where this study was done, is located in the extreme south western Uganda, about 510 kilometers from the capital, Kampala. It has a difficult mountainous terrain, with lakes and volcanic rocks complicating access to health services by the population or access to the population by health workers in outreach programmes. This affects the delivery of health system inputs like stationery for the HMIS as well as outputs like HMIS data. Bufumbira East HSD has some of the remotest health units in the district. It has one (private) hospital supervising seven government lower level health units (4 HC IIIs and 3 HC IIs). The hospital (St. Francis Mutolere) is a national HIV sentinel surveillance site posting a prevalence of about 2.1 % (MOH, 2002). It is therefore a trusted source of data.

Organizations need reliable information to make sound and well-informed decisions. It should be relevant, timely, accurate, complete, from a source in which the user has confidence, be understood by the user, be as detailed as needed for it to be used. Information for decision making is not only needed by higher level policymakers and managers but also health service providers at other levels including the doctors, nurses, health technicians and community health workers who actually collect and aggregate the data. Unless the information is used, the considerable costs involved in setting up and maintaining a HMIS can be difficult to justify. The HMIS is a tool for managers and is

structured to help the district health team improve and maintain the health of the community. If it does not help in the planning, implementation and monitoring of the primary health care activities by the health team, it has no useful function (Bukanya, 1997).

Problem statement

Despite the fact that the country has put in place a well-established HMIS starting from lower level health units, there is no evidence to show that major decisions affecting health planning and budgeting at peripheral health units are based on hard evidence obtained locally. Data are collected from health units, fed to the HSDs, districts and up to the national level but it is not known whether those who collect them ever use their own data for planning health services at their own level. The HMIS has a performance assessment format for the HSSP programmes for all levels. The format tests for data utilization and action /response at the point of collection. However, the uptake of this report has been very slow (MOH, 2003). Anecdotal information available suggested that Bufumbira East HSD, and possibly many others like it, did not use HMIS data to plan and monitor their health services, thus planning arbitrarily and spending resources on unconfirmed priorities.

Objectives

With a general objective of assessing the actual functioning and use of HMIS data in Bufumbira East HSD, the study had two main objectives, namely, to assess the knowledge of the HMIS by the health managers in Bufumbira East HSD and to assess whether the data collected at the health units are translated into action plans by the health unit and HSD staff.

Health Information Systems

The WHO identified health information systems as being critical for achieving health for all by the year 2000 since long ago (Mahler 1986). By 1987 the WHO had clearly linked improved management to improved information systems (Lippeveld, 2000). The HMIS is important in Primary Health Care (PHC) for a number of purposes. Among others, it assists the supervisors and managers in determining the effectiveness of services, identifying problems, taking reasonable corrective measures and planning future strategies and activities. It assists a PHC system to achieve equity, effectiveness and efficiency by identifying who is to be served, their location and their needs. It helps to monitor progress, identify problems in implementation and shows whether a health programme is having any effect on health status (Khatidja et al, 1993).

However, health information systems in most countries are inadequate in providing the needed management support (WHO, 1987; Lippeveld, 2000). There are constant complaints of the heavy workload and lack of facilitation for data collection. The data received are often not helpful for management decision-making because they are incomplete, inaccurate, untimely, obsolete and unrelated to priority tasks and functions of the local health personnel (Lippeveld, 2000). Information systems tend to be “data-driven”, measuring success by the quantity and quality of information produced instead of being “action-driven”, measuring success by decisions and actions that information succeeds in influencing. A large part of the data collected passes on to the national level without being analyzed and used, and frequently ends up on the dusty shelves of an office in the Ministry of Health (Stefanini, 1998). Yet, information is a crucial input at all levels of the management cycle (from situation analysis to evaluation) and at all levels of the health system (from the periphery to the center). It is crucial for patient/client management, for health unit management as well as for health system planning and management (Lippeveld, 2000).

A general assessment of the Pakistani HMIS in 1991 found that it did not provide adequate information for decision-making either to the health managers for system planning and management or to health workers for facility or patient management. It did not always respond to specific information needs at different levels in the health system and data collected in health facilities were poorly organized. There were separate reporting systems and separate supervisory systems. Data consolidation and processing was mostly done manually, was time consuming, error prone and use of information was greatly limited by the quality, the fragmented flow of information and by the lack of feedback mechanisms (Lippeveld, 2000).

The availability of high quality information does not guarantee its appropriate use in the decision making process (Opit, 1987). However, evidence shows that much of the collected data remains unprocessed, or if processed, it remains not analyzed, or if analyzed, it remains not read or if read it is not used or acted upon (Chambers, 1994). Data recording and reporting by service staff is regarded as a constraint in many countries. Duties of HMIS data collection are regarded as “excessive” by health workers because most of them are not used in the tasks they perform or in facility management. Analysis, reporting and feedback are rare and not well prepared (WHO, 1997). In 1995, a study by the WHO intended to strengthen the generation, management and use of health information within the

countries of the African region found insufficient use of the available data for planning, implementation, case and service management. It also found insufficient monitoring and evaluation (WHO, 1995).

WHO then proposed basic principles to be used including that no health data should be requested from a service level to be reported to higher levels which does not have an actionable use at the recording level; that health data should be used to analyse and solve important health and service problems; and that priority attention should be given to improving data generation and use at the local level to support the enhancement of service performance at that level (WHO, 1995).

In Cameroon, a study on development and implementation of HMIS found that monthly data flow from health centres and hospitals was reliable but feedback to the individual health services which contributed monthly data was lacking although they had expressed keen interest in obtaining HMIS (Bunge, 1997). In Mauritius, WHO found incomplete filling of medical records, generalized shortage of staff, low awareness of the importance of the HMIS, lack of feedback and lack of utilization of information at the point of collection to be factors contributing towards poor compliance with the surveillance schedule (WHO, 1997).

Statistical information is often neglected by those whose main activity is either patient care, performing laboratory and clinical research or providing expert technical advice and instruction (Basch, 1978). Today, most countries view the HMIS as an indispensable part of their overall health statistics. However, while mortality and morbidity statistics are in many places approaching a high standard, few countries have sufficient data to describe their health services. Data collection becomes a useless exercise if the data collected are not exploited (Boerma, 1991).

Data requirements are frequently chosen without taking into account the technical skills of the health workers collecting the data or the available diagnostic equipment in peripheral health facilities. Furthermore, health workers receive little if any training in data collection methods (Lippeveld, 2000). Lack of feedback on the data reported to higher levels reduces the incentive to preserve the quality of the data and to comply with the rigorous reporting requirements. Another factor that seemed to affect the utilisation of HMIS data was that reporting and transmission of data is often done with minimal involvement of the line managers and providers of health services (Frere, 1987). It is often relegated to junior and often

unqualified staff. Because data are not cross-referenced among the different systems, health care providers and system managers spend a considerable amount of time collecting redundant and overlapping information. Moreover, data transmission does not follow the hierarchical lines of communication and many reports often do not reach their intended destination (Smith, 1988).

The observed inefficiency of most existing information systems in developing countries is linked to the structural weakness of the system and lack of integration in the overall health system. This is because, historically, their information systems were not intentionally planned to provide integrated management support to the health services. Health information systems differ from country to country depending upon historical factors and the interest of policy makers, administrators and researchers (Folts, 1993). Use of the HMIS varies at different levels. It was found to be especially weak at the district, health centre and community level (De kadt, 1989). One impediment to ensuring use of information was found to be the difference in the cultures of the people who collect the data and those who make the management decisions. Data from a HMIS are useful for both political decision-making (budget and resource allocation) and for management decisions. A well-designed HMIS ensures that data transmitted are relevant not only for the decisions that must be made at higher levels but also for day-to-day management at the health centre level (Lippeveld, 2000).

Uganda's HMIS

The current HMIS was established in 1986. At that time, data collection, analysis and feedback took place at three levels, that is: health unit, District and National Level. By 1992, only 21 districts out of 39 had an operational HMIS and information was received at the Ministry of Health 6-9 months late, from a few units and irregularly. This information was mainly health statistics like disease reporting, with no administrative, financial or other management information. In 1993, the Ministry of Health launched an in-depth review of the existing health information system (HIS) that was unanimously regarded by all stake-holders as ineffective and inefficient. A new HMIS was designed, addressing the needs of the different levels of the health sector. Its aim was to provide relevant and functional information on a routine basis for all levels of administration. The new system was to primarily strengthen capacity for health-related decision making at the district level at a time when the decentralization policy was being implemented in the country (Stefanini, 1998).

In 1994/5, a broader HMIS was introduced as a pilot project and evaluated in two districts of Mukono and Kabale. Greater emphasis was on managerial data rather than just disease statistics. In January 1997, the HMIS was introduced countrywide and in 1998 there was an assessment of its implementation with emphasis on the use of data and information for local decision-making. At that time, the cost-effectiveness of the HMIS was being questioned because of the high costs of its implementation and problems in its sustainability. Due to funding problems, districts were being encouraged to produce forms on their own. The MOH provided only the database books and supplied only some of the forms. In November 2001, the HMIS was revised.

The Health Centre Quarterly Assessment Report was introduced to allow the district to calculate the quarterly indicators of performance related to the monitoring of the health sector strategic plan (HSSP). Further this would help the district to define actions to improve those indicators thus linking decisions to information. Health facilities used this form to collect information on outpatient attendance, diagnoses, laboratory tests, maternal and child health, family planning activities and stock-outs of essential drugs and supplies (MOH, 2001).

In a study on the use of health information for operational decision making by division level managers of Kampala City Council (KCC), it was noted that although the HMIS was revised to make it user-friendly and meet the needs of the decision makers at all levels in the health structure, the information collected was incomplete, untimely, inaccurate and its use for decision-making was very limited. Due to the poor quality of the data, the KCC managers relied mainly on “soft” and “observational” information for decision making which was greatly influenced by political interest (Asiimwe, 2002).

According to the 2002/2003 Annual Health Sector Performance Report, there have been progressive improvements in the management of information, like in the timeliness and completeness of reporting. But the bottleneck for further improvement appears to lie at the HSD level where further facilitation and motivation of the records assistants plays a crucial role in timely and accurate compilation and submission of data to district level (Ministry of Health, 2003). It had earlier been found that some of the necessary competencies to run HSDs and districts like technical skills in filling the HMIS forms and data analysis were lacking at the district and the lower level health units (Kirya, 2001). Technological issues rather than wide

organizational issues dominated the debate before implementing the planned improvements in the HMIS. Support for use of the information at the point of collection was not strongly advocated. The other problems in the process were the many staff required to perform tasks in information collection for which they had not been or been poorly trained, thus making using the information gathered at health units difficult; the targets continued to be set at district and national level instead of local level; poor collection of the data at the local level and lack of alignment between the HMIS and the overall organizational strategy (Glawin, 2003).

Materials and Methods

HMIS records in Bufumbira East HSD for the FY 2002/2003 were reviewed, with a focus on the following HMIS forms for all the health units in the HSD: Forms Number 032 (the Referral Note), 105 (the Health unit monthly report), 106 (the health center quarterly assessment report), 107 (the Health unit annual report) and 109 (the health unit population report). Utilisation of HMIS data was studied by review of documents and interviewing the staff in charge of the health unit, the records assistants, members of the Health Unit Management Committee (HUMC), the staff in charge of the Health Sub-district (HSD) and the focal person for HMIS at the district level.

Variables and data sources

Knowledge of the Health managers on importance of HMIS

This referred to the knowledge that the managers showed on the objectives of the HMIS, local targets, and their knowledge of the process of converting data into useful information. This was obtained by interviewing all the personnel in charge of health units, the records assistants, the HUMC members, the district HMIS focal person and those in charge of the HSD on the importance and use of the HMIS. They were tested on their understanding of the target groups, service targets, calculation of coverage and interpreting trends in disease using HMIS reports from their units. They were also tested on their knowledge of some of the common HMIS documents.

HMIS Form 032 (the Referral Note) is used when a patient is referred for additional treatment at a higher level health facility. This intended to give patients an incentive to utilize first line health units first. The staff were expected to know its presence, its purpose and how it is used.

HMIS Form 105 (Health unit monthly report) is used by health units to report the attendance figures for

MCH/FP and OPD attendance, diagnoses, stock-outs of essential drugs and supplies, dates of management meetings and financial flows. In total this form has 9 parts to fill. The values are obtained from curative and preventive attendance summary from the form HMIS Form 055 (laboratory register), OPD diagnoses, attendance summary for MCH, family planning, and immunization activities, UNEPI (immunisation) attendance summary, form HMIS Form 057 (operating theatre register), essential drugs, vaccines, contraceptives and supplies that ran out of stock during the month (Obtained from stock cards), the number of outreach visits planned and achieved and a summary of financial transactions. Its due date at the HSD is the 7th of the month following the one being reported upon.

HMIS Form 106 (health center quarterly assessment report) is used to monitor the performance of the health unit with respect to the HSSP indicators. It provides insight into the accessibility, quality of care, as well as utilization and health status. To fill this report, the health unit population report (HMIS Form 109) must be completed first. The population report provides the denominators for many of the variables. In addition, the three health unit monthly reports for the quarter must have been completed to provide the data to calculate the numerators. It is therefore a test of the consistency with which reporting is done.

Quarterly targets should be set at the beginning of the year for each health unit and can either be based on national, district or health sub-district priorities or set on previous year's performance. Only national targets are used to monitor the achievements of the HSSP. Comparing the indicator value with the target helps the managers to answer management questions, for example, whether the outpatient department is being sufficiently utilized by children under five. If there are any problems in the service delivery, it should be discussed in the staff, HUMC, HSD meetings or discussed with supervisors from the HSD in order to plan for a joint response to the problem and appropriate actions taken for improvement during the next quarter. The report should be submitted to the HSD by the 14th day of the month following the end of the quarter i.e. October, January, April and July. We assessed whether the form was understood by the staff, analyzed and used at the local level. We also assessed whether the report was discussed during the supervision visits, during the meetings at the HSD and by the HUMC.

HMIS Form 107 (Health unit annual report) summarizes annual information on OPD, MCH/ FP,

finance and workloads. It also has general management information like daily workloads, ownership etc. Its due date is 31st July, one month after the end of the Financial Year. We assessed whether the form was understood, filled, and used for planning. HMIS Form 109 (Performance of health facilities, health unit population report), shows the defined service area, the community workers and estimated target attendance for the different services in the coming year. Its due date is also 31st July and we also assessed whether it was understood, analyzed and used at the local level.

Utilisation of HMIS Data at the unit of collection

We assessed this by looking for evidence of decisions taken by health unit staff, HUMC members or HSD stakeholders basing on local HMIS data contained in the various forms outlined above. One standard example was whether health unit targets for different services were calculated based on HMIS data from the unit.

Data sources

We interviewed twenty eight respondents (eight personnel in charges of the eight health facilities, two records assistants, sixteen health unit management committee members, personnel in charge of the health sub-district and the district focal person for health management information system) with a self-administered questionnaire and the response rate was 100%. We also reviewed some HMIS reports (daily outpatient register, monthly reports, quarterly reports, annual reports and population reports) and minutes of some key meetings (health unit staff, health unit management committee, HSD stakeholders). The comments made in reports by the support supervision teams were used to validate all the above. Key informants were the personnel in charge of the health facilities and the health sub-district and the district HMIS focal person.

Findings

One major observation we made was that HMIS reporting in the HSD did not follow the normal hierarchy of the health system i.e. health facility to HSD and HSD to District office. The health facilities reported directly to the District, by-passing the HSD. In addition, not all the health units used all the forms as required.

Knowledge of the importance of the HMIS by the health unit managers

Only three of the eight staff in charge of health units knew their catchment population and only two could determine targets for the attendance of their health

facility. Only two of them had had some form of training in HMIS yet they were all responsible for the compilation of data in the health facilities. Staff meetings were held only once or twice a year in five of the eight health units but, even then, HMIS data were not discussed. Even during the quarterly support supervision visits from the HSD, HMIS data were not discussed. Supervision took place only on quality indicators monitored under the Yellow Star Programme (YSP), a special quality assurance programme of the Ministry of Health. All the eight staff in charge of the health units did data analysis but only four used their findings for decision making/planning. Only two health facilities displayed graphs showing their performance targets on the walls of the health facilities.

At Mutolere hospital, HMIS data had actually been used during the process of flattening patient fees in order to increase access. The process of submission of HMIS data to the district was not uniform in the HSD. In five of the eight health units, personnel from the district level personally collected the data from the unit, bypassing the HSD office. In two health units, the reports were sent directly to the district, also bypassing the HSD. One health unit sent the data by radio call (later followed by report forms) also bypassing the HSD. The main reason given for bypassing the HSD level was that their HMIS data delayed unnecessarily at the HSD and, as a result, 3 had been told by the district HMIS focal person to report directly to the District office.

District level staff provided feedback on HMIS data to health unit staff during supervisory visits to the health units. However, this was only verbal and there was no written record of such feedback. The feedback was mainly on the performance of their specific health facilities, not on the entire district or HSD, for comparison purposes.

Knowledge of the importance of the HMIS by the Records Assistants

Of the 8 health units studied, only 2 (Mutolere hospital and Nyakabande Health Center II) had records assistants. The records assistant from Nyakabande had a diploma in business studies (UDBS) and had received formal basic training in HMIS for 2 weeks. The records assistant at Mutolere hospital had completed Ordinary level secondary education and had received on-job training and even attended a one-week workshop on HMIS. On top of their HMIS assignments, both of them did other activities in the health unit like weighing children during Immunisation sessions, receiving patients at the reception and at

times dispensing drugs (in Nyakabande) besides collecting data. In all units, the total time spent on collecting and analyzing data was on average 3 days in a month.

Both records assistants analysed their data but only one (from Nyakabande) was capable of presenting them graphically. Lack of feedback, HMIS forms and transport were reported as the main constraints faced by the records assistants. At Mutolere hospital family planning and maternity data delayed in maternity thus leading to late reporting to the district office.

Knowledge of the importance of the HMIS by Health Unit Management Committee Members

Sixteen health unit management committee members from eight health units were interviewed (two per health unit who lived within a radius of one kilometer from the health unit). The committees should, ideally, hold quarterly meetings and discuss managerial issues of the health facilities. However, a review of the minutes showed that HUMC members met once or twice a year and HMIS data were never discussed in their meetings. The HUMC members did not participate in setting targets, monitoring or evaluation of the activities of the health units. Four of the sixteen HUMC members (25%) understood HMIS and reported that it was discussed in their meetings and even used for planning. However, this was not supported by evidence on review of minutes of previous HUMC.

Knowledge of the importance of the HMIS by staff in charge of the HSD

According to the staff in charge of the health sub-district, all the health units submitted their HMIS reports to the district office. Nobody at the HSD knew whether the reports submitted were fully filled, timely or accurate. There was no staff at the HSD head office specifically dedicated for the HMIS. In addition, there was no budget for collecting data from lower level health units. HMIS data were said to be discussed at HSD stakeholders' meetings but a review of previous minutes for FY 2002/2003 did not confirm this. The use of HMIS for decision-making at this level could not be traced on detailed review of the minutes.

Knowledge of the importance of the HMIS by the district HMIS focal person

The district HMIS focal person knew the importance of the HMIS. He also knew a number of problems relating to the completeness of the HMIS forms. The reasons given were that some parts of some forms, e.g. Form 105, were no longer relevant (for example the financial part intended for the management of user

fees, abolished in March 2001). Other reasons included lack of time, shortage of staff, staff demotivation due to lack of feedback, lack of technical know-how lack of on-job training.

Discussion

The HMIS in Kisoro district like that of Uganda as a whole is supposed to be organized in three levels of reporting, whereby health facilities summarise their reports on standard reporting forms, send them to the HSD level where they are aggregated with data from all the health units under its supervision and then sent to the district office. This then aggregates data from all its health sub-districts and transmits the reports to the MOH, which, in addition to the said lower levels, prepares feedback for the lower levels. This data is supposed to be used at all levels for decision making. One of the indicators for use of HMIS data is the knowledge by staff of their target groups, service targets, actual service coverage for the different services and monitoring the occurrence and trends of disease in their service area. This is the only evidence that the staff is analyzing their data and using them to direct their attention to address the needs of the population.

Information may be presented in graphs, charts and tables to ease comprehension by staff and other stakeholders. Annual or quarterly targets may be indicated on the graphs or tables. Whereas Stefanini found that all the health units in the neighbouring Kabale District had determined their service and attendance targets during an HMIS evaluation exercise, (Stefanini, 1995), this was not the case in Bufumbira East HSD which is the nearest HSD. Yet, the context of the two districts is not very different.

The majority of the staff in charge of health units did not know their catchment populations. They did not monitor the utilisation of their services or the trends of common diseases in their areas and generally did not summarise their data in form of diagrams that are easy to comprehend by themselves and other stakeholders. Not knowing the catchment population means that the personnel in charge could not calculate population target groups for various services. This affects planning for services and therefore provision of services, eventually affecting their utilisation. The counter-referral system was not functional. Lack of a practice of counter-referral is detrimental to the morale of the referring staff. Counter-referral gives morale and builds the confidence of the staff of lower level health facilities especially after knowing that their initial diagnoses and treatment were correct or helpful for the patient. It also provides an opportunity for

continuing medical education for staff of lower level health units because, if it is done well, the more qualified staff of the higher level unit reports to the referring lower level unit on the diagnosis and treatment offered. Counter-referral information may also be used during support supervision. With the counter-referral system non functional, it is possible that a significant number of the out patients seen at the hospital or higher level health centres could have been managed at lower level facilities. Patients refer themselves thus overloading the higher levels. Higher levels may be expensive for the patients in terms of accessibility both geographically and financially because patients have to travel long distances, spend long hours in queues lining for services. However, there was no way of telling this since the data were not analysed and utilised for decision making.

The HMIS was not given adequate time and was seen as a cumbersome additional duty rather as a main function of the health unit managers. HMIS data were not discussed during meetings and were therefore not used for decision-making except in one case where the hospital used them to flatten user-fees. The HSD level staff never supervised the HMIS and district staff only gave unrecorded verbal feedback about it. There were frequent shortages of HMIS stationery and the data recorded was of doubtful quality. The reports were largely inaccurate, but again, there was no way the HSD managers could have identified this problem since they did not have access to HMIS data from the lower level units and neither they nor the managers of the lower level health units attempted analysis and use of the data. Verbal feedback from the district did not help matters either. Had the HSD managers had access to the HMIS data from the lower units, it is possible that they could have attended to some of the causes of inaccurate reporting such as staff attitudes, lack of knowledge of the HMIS, shortage of stationery etc.

It is not clear why the district office advised the lower level units to send their HMIS directly bypassing the HSD (or accepted the data from the lower level units without insisting on them passing through the HSD office), instead of making sure that the HSD level improves its performance with regard to the HMIS. Many reasons could be tendered in for such a practice. These would include a need for quick reporting to meet the deadlines (since there was a concern that the HSD office delayed the reports). However, the HSD headquarters unit being a private-not-for-profit unit (and the only private unit in the HSD), it is possible that the district office chose to deal with its fellow government units, ignoring the private one even if it

was in the reporting hierarchy. This would be an indicator of a weak public-private partnership for health (PPPH) at a lower level in the district.

The fact that a review of minutes of meetings at HSD and facility levels revealed no discussion of HMIS findings means that the principal causes of problems were not analysed and discussed by the key stakeholders (health facility and HSD staff, HUMC, supervisors etc). It was therefore not surprising that no action had been taken basing on the HMIS data. Information derived from continuous monitoring can have an early warning function. Prompt detection of outbreaks can lead to knowledge of their causes and steps to minimize the spread of disease. In Bufumbira East Health Sub-district, since data at the health facility was not discussed by health facility staff, HUMC and since there were no lower unit data at the HSD level, it suggests that planning and implementation of health services at the lower levels were arbitrary and probably not based on the real needs of the population.

Conclusions

The critical and important objectives of using the HMIS for planning, managing and evaluating the health care delivery system were not being realized in Bufumbira East Health Sub-district. Staffing for HMIS duties was poor with few and untrained staff being dedicated for the HMIS. Due to heavy workload, little time was spent on the HMIS. The normal HMIS reporting channels were not followed and lower level units reported directly to the district, bypassing the HSD. HMIS data never formed a subject of discussion either during meetings or during support supervision and as such, were never used for planning services. The district level gave only verbal feedback on the HMIS to the lower levels and encouraged them to bypass the intermediate HSD level. It can therefore be concluded that the HMIS in the sub-district was not functional in a normal way and was not utilised at the point of data collection. The data were collected with a single objective of transmitting them upwards to meet the requirements of a higher office and the managers of the lower level units never saw themselves as potential and obligatory users of the data.

Recommendations

It was recommended that sensitization of all health unit staff on the importance of the HMIS needed to be undertaken, followed by proper training of records assistants in collecting and compiling data for the HMIS. Apart from the indicators of the quality of an HMIS such as accuracy, completeness and timeliness of reporting emphasis during training should be laid on the ability to use the data at the point of collection. Possibly, this could be added as a specific indicator

within the HMIS itself, to be monitored on a regular basis. Also recommended was that health facility managers consider rotating health workers responsible for data collection to avoid fatigue from the routine exercise and to minimize mistakes. Internal and external support supervision on the HMIS followed by written feedback was recommended, in order to give guidance, support and correction for those responsible for data collection. HMIS data need to be discussed regularly during staff meetings, staff meetings and CME sessions in order not to miss emerging disease trends. Written feedback needs to be given to those who collect data in order to improve their accuracy and build their morale for the work. It was recommended that the practice of by-passing established reporting channels like the HSD be stopped and instead the reasons for delay of data at the HSD level be addressed. The public-private partnership for health can only be strengthened if there is full and honest collaboration between the partners.

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