

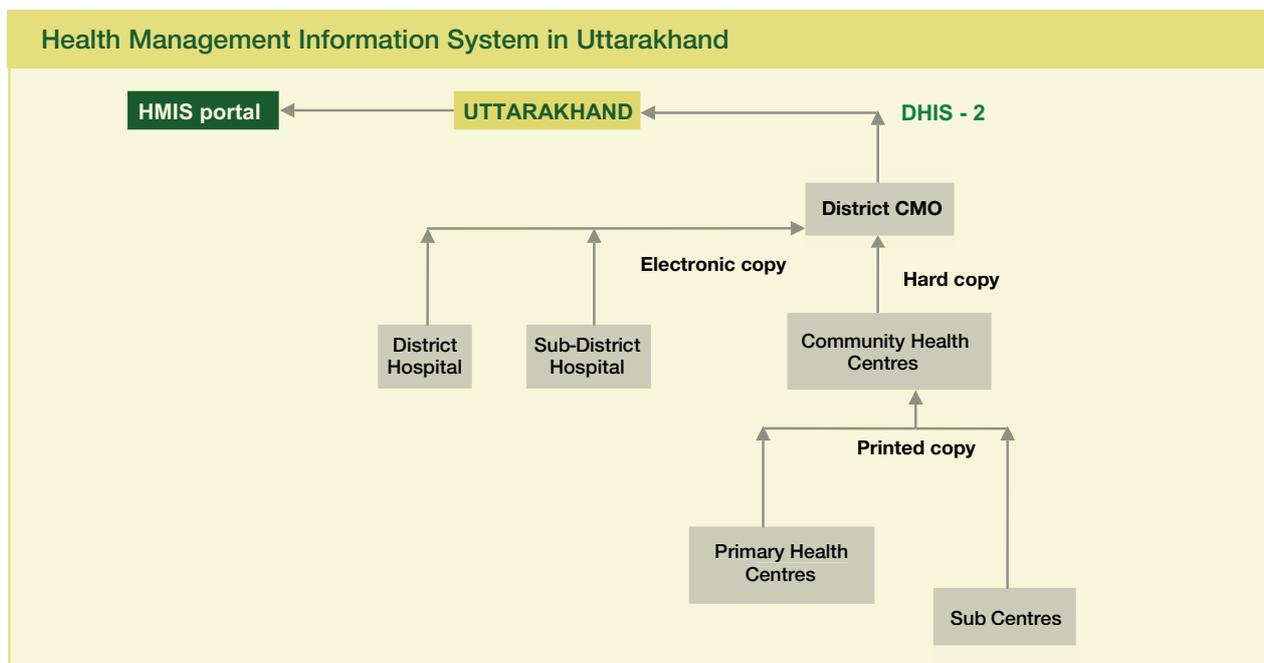
CHALLENGES OF THE HMIS IN INDIA

A case study of Udham Singh Nagar, Uttarakhand

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The Health Management Information System (HMIS) was designed to facilitate the monitoring and evaluation of the National Rural Health Mission (NRHM), which aims to improve health care delivery in India, and identify shortcomings. A study of the HMIS in the Udham Singh Nagar district in Uttarakhand, a state in northern India, finds that the coverage of the private sector is inadequate, the quality of the data reported poor, and monitoring non-existent and that, therefore, the HMIS serves limited purpose in policy making. The main reasons for this sorry situation are inadequate training and lack of accountability. The Training of Trainers (TOT) model that is currently followed should be abandoned, and

competent resource persons should train Auxiliary Nurse Midwives (ANM) and Lady Health Visitors (LHV). Training modules for Block Programme Managers (BPM) should be redesigned to detect errors in data and the possible reasons for such errors and for eliminating such errors. All facilities must maintain a copy of the data they submit to facilitate checking. External agencies (such as Population Research Centres) should supplement current monitoring efforts. An abridged HMIS format might help in ensuring the co-operation of private sector units, and such forms could be linked to prenatal diagnostic test forms that registered private facilities must submit.



The authors are at the Institute of Economic Growth, New Delhi. The authors conducted a study as part of an ongoing monitoring of the Health Management Information System in Uttarakhand assigned to the Population Research Centre, Institute of Economic Growth (IEG) by the Ministry of Health and Family Welfare (MoHFW) of the Government of India. This policy brief is based on the report of that study entitled 'Improving HMIS in Uttarakhand: A study of Udham Singh Nagar and Rudraprayag'. All views and opinions in this policy brief are of the authors only and not necessarily those of the IEG or the MoHFW.

CONTEXT

The crux of the NRHM is to introduce architectural modifications in the health system to ensure expanded coverage and effective delivery of health services. To attain these objectives, the collection of regular and timely information on the performance of the health care units is essential. This realisation led to the introduction of the HMIS, a tool that helps in gathering, aggregating, and analysing data, and then using the information generated to improve the performance of health systems. The HMIS in India is based on a mix of paper, computers, and the internet. It enables assessment of the health needs of the population (and its geographical variations); this facilitates monitoring delivery of health services and health programmes, ensuring their effectiveness and coverage.

OBJECTIVES AND METHODOLOGY

The study aimed to (1) analyse the coverage of reporting of HMIS data; (2) identify the causes underlying

errors in HMIS data; and (3) discuss the challenges to improving HMIS quality in the near future. The study is based on analysis of state-level and district-level data downloaded from the HMIS portal and a field visit of health facilities in Uttarakhand. We visited Sub Centres (SC), Primary Health Centres (PHC), Community Health Centres (CHC), District Hospitals (DH) and Sub-District Hospitals (SDH). During these visits, we examined registers and previous monthly reports, and interviewed ANMs, LHV, Staff Nurses, and BPMs with semi-structured questionnaires on issues like data quality, concepts related to HMIS, duplication of data, work load, etc. We also interacted with officers in the Uttarakhand State Health Mission and Chief Medical Officers (CMO) of districts surveyed.

We covered the District Hospital (DH) and Sub District Hospital (SDH) in Udham Singh Nagar. Apart from this, two blocks were selected purposively in each district. One of the blocks was close to the district headquarters whereas the other was at a distance from it. We visited the CHC of the block, one PHC and two SCs under the PHC. The specific sites were chosen after

Summary of HMIS in Udham Singh Nagar district, Uttarakhand

<i>Research Question</i>	<i>Udham Singh Nagar</i>
Identify whether all the service providing units are reporting for HMIS or not and, if yes, since when	All public sector facilities are providing HMIS data since the inception of the HMIS portal in 2008.
Identify the units that are not reporting HMIS data	14 (out of 25) private sector facilities providing MCH services are not reporting HMIS data at all. The remaining 11 facilities provide data irregularly to the Statistics Unit, Health Department. The CMO has been accessing this data only after the PRC's visit in July 2011.
Observe whether the reporting units are providing data on all MCH indicators in HMIS	Public facilities are reporting data on all MCH services provided by them. However, as the range of services provided by them is narrow, this is reducing effective data upload. Private sector units report only live births and immunisation.
Observe whether reporting units are regular in reporting	SCs and PHCs are sending data to CHC by 28th of month (Reporting period is 20-19 of each month)
Observe whether the system has a proper mechanism to collect data from hospitals	SDH are forwarding data to CMO by 2-3 of next month.
Observe the system of record maintenance of services rendered	HMIS reporting system exists in the public sector hospital (DH/SDH) and data is being reported regularly
Observe the system of record maintenance of services rendered	While records are being properly maintained in some facilities, in other facilities records could not be inspected due to absence of concerned staff (despite prior intimation of visit sent by CMO). Registers are properly maintained.

discussion with CMO and BPM of concerned districts and blocks. The field study was conducted during July to September 2011.

FINDINGS AND RECOMMENDATIONS

It is regrettable that the HMIS, a core component of the NRHM designed to facilitate this monitoring and evaluation exercise, should itself be unprepared to play any role in identifying the weaknesses of the NRHM. This study of the HMIS in Uttarakhand exposes systemic weaknesses and shortcomings that are likely to be found in other states also.

The study reports that, although all public health facilities report HMIS data on a monthly basis, monthly reporting of information on health services delivered by the private sector remains very poor. Further, quality of the reported data remains a major issue. This must be addressed for the HMIS to serve a useful tool to policy makers.

Our experience during field visits shows that the crux of the problem is at the grassroots. *The HMIS was introduced following a top-down approach, without adequately preparing the facility and block level staff for the critical role that they had to play in the system.* The MoHFW followed a TOT model. This consists of training state-level officials on how to fill up the data entry forms, who would train district-level functionaries. The latter would, in turn, train the ANMs and LHVs. The problem was that state level officials were trained by junior staff belonging to the National Health Systems Resource Centre (NHSRC) and contractual employees attached to the Statistics Department of the Ministry. These people often had poor knowledge of the HMIS and lacked teaching and communications skills. This affected the quality of training, with state level officials—most of whom lacked medical training—failing to comprehend many concepts. Their efforts to resolve their doubts were generally brushed aside by the trainers. Consequently, state level officials were poorly equipped to impart training to district level functionaries.

Reliance on the TOT to economise on costs and time also meant that all functionaries were being given

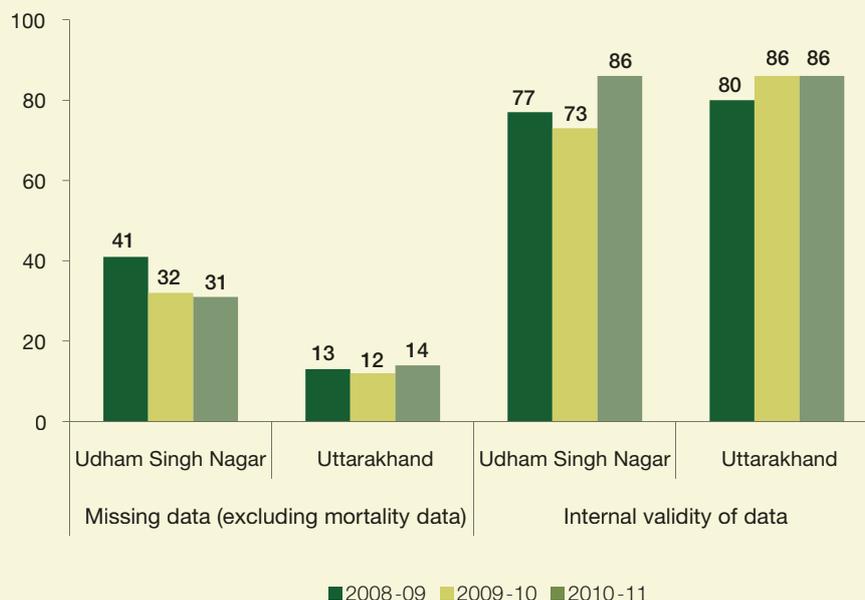
uniform training, despite variations in their role within the HMIS. For instance, BPMs require training on how to detect errors and how to use the software to enter the data; ANMs and LHVs, on the other hand, need training on how to cull the required data from the HMIS and enter it into the forms. Unfortunately, none of these functionaries was trained in the skills relevant to them; so, the TOT model merely produced a group of poorly trained health functionaries.

It is imperative, therefore, to prepare the facility level staff and BPMs for their respective roles in HMIS. Most of the HMIS data is generated from the SCs, where such data is reported by ANMs and verified by LHVs. These people are neither trained nor do they have the necessary aptitude for 'learning by doing'. The need to train ANMs and LHVs by experienced and able trainers came out during the field survey. Such training should be followed by visits to randomly selected facilities to evaluate the extent to which the training has been understood by the facility staff. Forms for SCs, PHCs, and CHCs should also be translated in Hindi/local language to facilitate easy understanding and use by ANMs.

Another issue is the feedback mechanism—it needs overhauling. Currently, BPMs are correcting errors without sending them back to ANMs. This is partly to save time, but also because BPMs are often burdened with multiple functions unrelated to the HMIS. This practice is undesirable, as the accuracy of data is affected; further, there is no accountability. To prevent this, current monitoring efforts by the district and state officials may be supplemented by monitoring undertaken by external agencies. Though the MoHFW has involved Population Research Centres (PRCs) in monitoring HMIS data, their involvement is viewed with suspicion and even seen as a form of interference or duplication of efforts by the district and state level officials.

It was also observed that ANMs were older, had security of tenure, and enjoyed higher pay relative to BPMs. This made ANMs reluctant to accept suggestions from BPMs. The uneasy working relation between BPMs and ANMs reduces accountability within the system and prevents BPMs from carrying out their monitoring and supervisory tasks effectively. As a result, errors are

Snapshot of HMIS Data Quality



Source: Estimated from HMIS portal

creeping in to the monthly data reported by facilities. When these data are compounded at the district and state level, they result in an information system that provides a faulty guide to assessing performance, resource allocation, and target setting through District and State plans.

Checking of HMIS data is another vital component of HMIS. Training modules of BPMs should be redesigned to focus on detecting errors in data, possible reasons for such errors and how such errors can be eliminated. Since poor documentation is another constraint to monitoring HMIS data, all facilities—SCs in particular—should be instructed to maintain copies of data submitted by them as this will facilitate checking of data.

It was also observed that private sector units often do not report information. This is a major problem in urban areas. A possible remedy is to circulate an abridged HMIS format seeking institutional delivery details, birth details and MTP data, which will have to be submitted along with Pre Natal Diagnostic Tests forms (which have to be submitted on a compulsory basis by registered private facilities).

The HMIS is the only data source in India at the facility level capable of providing micro-level information every month for improving the delivery of health care services. But its potential remains unutilised because of the failure to train the staff and incorporate accountability within the system.

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