



Strengthening Human Resources Information Systems - Experiences from Bihar and Jharkhand, India

January 2012

Context

India faces critical human resources (HR) challenges in the health sector, including shortages in key cadres and in rural and underserved areas. The Working Groups on the National Rural Health Mission of the Planning Commission and the High Level Expert Group Report on Universal Health Coverage for India have both emphasised the importance and urgency of strengthening human resources for health (HRH), noting that achieving universal access to quality health care is highly dependent on the quantity and quality of the health workforce.

With an increased recognition of HRH-related problems, the National Rural Health Mission (NRHM) has been investing in more health workers, especially at the primary care level. However, a major obstacle to an improved response has been that information on the health workforce is limited, fragmented, and generally not in a format that can be easily reviewed and shared. The minimal amount of HR information is usually kept in disparate paper files, which are often not up to date. The Ministry of Health and Family Welfare's (MoHFW's) current health management information system focuses on service delivery and does not include sufficient HR information. This greatly reduces the ability of decision-makers to access and use accurate and timely data to improve the effectiveness and efficiency of the workforce, which is critical in order to meet national health objectives. An improved HR information system is an essential tool needed to improve HRH policies as well as workforce planning, development, and support.

What is an HRIS?

A human resources information system (HRIS) provides managers and decision-makers with information needed to effectively plan, develop, and support their health workforce, including information to identify and address problems. Generally, it includes information on the health workforce such as the number of workers by cadre, posting location, training, qualifications, licensing status, as well as information on facility staffing and

vacancies. Many modern HRIS are multi-database systems with significant capacity to analyse workforce problems and possible solutions, as well as the capacity to link HR and service delivery data. The strength and effectiveness of an HRIS does not depend on technology, but rather on the system being practical, user-friendly, flexible, and able to generate accurate and timely information. A good HRIS provides the foundation for strong workforce planning, development, and management including recruitment, deployment, retention, quality assurance and productivity.

Recommended Approach to Strengthen an HRIS

IntraHealth International Inc. (IntraHealth) is a US-based nonprofit agency and a global HRH leader, which advocates for HRIS strengthening as an essential first step in most countries facing HRH challenges. Based on its experience of working in over 40 countries, IntraHealth recommends the following steps to improve an HRIS:

1. **Ensure local leadership:** A Stakeholder Leadership Group (SLG) should be established for the HRIS effort, to ensure local ownership, appropriate customisation of the system, and sustainability. The SLG role includes identifying the key HRH policy and management issues and questions, and guiding the implementation and review of HRIS strengthening and use of data.
2. **Link with and improve existing information systems:** The SLG needs to assess existing health information systems, information and communication technology infrastructure (e.g., existing networks, internet connectivity, software etc.) and relevant data currently collected by different departments and groups in both the public and private sector. Ways to link with and complement the existing systems as well as priority gaps that need to be addressed through an improved HRIS need to be identified.

3. **Identify and customise software solutions:** After the SLG agrees on key HRH questions and issues, as well as the needed HRIS improvements based on the assessment, it will need to seek customised HRIS software solutions. The selected software solutions should complement existing systems and tools, to the extent possible, to lower costs and accelerate implementation.
4. **Promote use of data:** Once the improved HRIS generates information, it is critical to promote its use, which requires capacity-building and support to managers and decision-makers. Leaders also need to promote and model the use of the information.
5. **Ensure sustainability:** Continuous engagement of the SLG is critical for optimal use of HRIS and identifying capacity-building needs to support, use, and improve the system in future.

HRIS Pilot Experiences in Bihar and Jharkhand

In India, the National Health Systems Resource Centre (NHSRC), technical support agency of NRHM, works to strengthen state-level health information systems and HRIS. NHSRC invited IntraHealth to contribute its experience and expertise to the HRIS efforts, through the USAID-supported Vistaar Project. The Society for the Health Information Systems Programme in India (HISP India), a technical partner of NHSRC, also contributed to the collaboration, and the three organizations formed a technical assistance team.

Based on their interest and requirements, the technical assistance team offered to help the State Health Society of Bihar (SHSB) and the Jharkhand Rural Health Mission Society (JRHMS) in



IntraHealth has developed iHRIS Suite to offer health-care providers in developing countries low-cost information systems for tracking and analysing health worker data. The iHRIS Suite consists of four tools for managing human resources information:

- **iHRIS Manage**, a human resources management system
- **iHRIS Qualify**, a training, certification and licensure tracking database
- **iHRIS Plan**, workforce planning and modeling software
- **iHRIS Retain**, workforce retention intervention costing tool

strengthening their HRIS. The team suggested starting with a pilot in one district per state; the SHSB and JRHMS leaders chose the Siwan and Ranchi districts of Bihar and Jharkhand, respectively. IntraHealth led technical assistance and capacity-building to SHSB and JRHMS from mid 2010. In 2011, IntraHealth led a review to assess the results and lessons from the pilot efforts in each state, gathering information from existing data, key informants, and regular review meetings.

Key results from the HRIS pilot efforts

1. SHSB and JRHMS are committed to HRIS strengthening:

The Bihar and Jharkhand health officials have a strong understanding and interest in improving their HRIS, and have provided needed leadership in identifying HR priorities and implementation and regular review of pilots. The SHSB and JRHMS leaders are committed to statewide scale-up, which will require continued time and effort, including staff capacity-building.

2. A functioning model HRIS exists in both states and serves as a platform for expansion:

The pilots involved the development of a customised HRIS, using the open source iHRIS Manage software. The system currently includes basic HR data on all health employees in the pilot district, and allows users to generate simple and user-friendly reports organised by characteristics such as facility name and type, job title, date of recruitment, current posting, employment tenure, and retirement and contract planning.

3. The pilot HRIS are yielding useful information:

Initial HRIS reports in the pilot districts have already generated useful information about deployment of health workers by job title and facility as well as retirement status of regular employees. The pilots have helped refine HR requirements with the active inputs of key stakeholders and potential users.

4. Staff capacity has been strengthened to implement and maintain the HRIS:

SHSB and JRHMS leaders have designated appropriate staff to manage the HRIS pilot work, including data collection, data entry and data quality review at the state and district level. Additional capacity-building is needed, especially in areas such as data quality and data analysis, and additional trained staff will be needed in each district for scale-up.

5. Statewide scale-up has begun:

In Bihar, the SHSB has already initiated the scale-up of the pilot HRIS to all districts in the state. In late 2011, the SHSB completed training of divisional and district level officials to facilitate collection of accurate and complete staff records. The Jharkhand state leadership reviewed the pilot in September 2011 and plans a second review post-verification of data accuracy and completion. A decision for scale-up and actual use of the system will be taken during the second review.

data, and leading efforts to expand the HRIS, such as to include new modules in areas like in-service training and performance management. An expanded and qualified HR unit is also needed to improve HR management systems, such as recruitment, deployment and workforce support efforts.

3. Promote data-based decision-making:

It is important to develop routine mechanisms for HRIS data sharing, such as by incorporating use of the data in the regular review meetings held at facility, block, district, and state level. This will require capacity to analyse and review the data at all levels. Data sharing and use generally result in increased interest in the data, and in turn, improved quality of the data. It can also prove to be a critical tool for rationalisation of staff deployment and achievement of service guarantees at each facility.

4. Initiate HRIS strengthening in areas where quick successes are likely:

In order to build support and create momentum for an improved HRIS, the initial modules and use of the system should focus on basic, priority HR areas such as vacancies, deployment, retirement and workforce planning, rather than more sensitive areas like measuring performance or tracking absenteeism. Once the HRIS is accepted and institutionalised, MoHFW leaders can expand the HRIS to address these more sensitive issues. Potential priority areas for future expansion include service records and working with professional associations to improve licensing and continuing education efforts.

5. Establish data standards and data flow processes:

The pilots revealed the need for a standardised list of health facilities and health worker position titles, as often multiple names and category types are being used to refer to the same facility, resulting in misleading data analysis and reports. In addition, many personnel are unsure of their position titles or continue to use outdated titles, because they have not received formal communication of title changes. The pilot efforts focused on customising and testing the software, data collection, and data quality. An important next step is to develop appropriate procedures to assign responsibility and access rights for maintaining and managing the HRIS, protecting the data from damage or tampering, and ensuring privacy.

Lessons learned and recommendations for scale-up

1. Continue and expand strong leadership:

Success and sustainability depend on the commitment of health sector leadership. IntraHealth's experience shows that the existence of a broad SLG can improve scale-up efforts, data quality and completeness, and use of the data for decision-making. For statewide scale-up and efforts to expand the scope of the HRIS, formally constituting an SLG will be helpful in forging inter-agency partnership, problem-solving, and ensuring high level use of the data.

2. Build capacity of MoHFW HR unit:

A strong HR unit within the state-level MoHFW is needed to lead core HRH efforts, including managing the HRIS. Optimal use of the HRIS will include ensuring a regular system for data updates, ensuring analysis and use of the

Vision

IntraHealth International believes in a world where all people have the best possible opportunity for health and well-being. We aspire to achieve this vision by being a global champion for health workers.

Mission

IntraHealth empowers health workers to better serve communities in need around the world. We foster local solutions to health care challenges by improving health worker performance, strengthening health systems, harnessing technology, and leveraging partnerships.

The Purpose of the Vistaar Project

To assist the Government of India and the State Governments of Uttar Pradesh and Jharkhand in taking knowledge to practice for improved maternal, newborn, and child health and nutritional status

IntraHealth International, Inc. is the lead agency for the Vistaar Project

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Conclusion

The pilots established a model HRIS, with customised open source software, built staff capacity in data collection, quality assurance and use, and have already generated valuable information and demonstrated the potential benefits of the HRIS. Health sector leaders in both states

are committed to scale-up of the HRIS, to improve health workforce planning, development and support. Similar efforts to establish and improve health workforce management in other states will support achievement of India's goal of universal health coverage.

IntraHealth's Global HRH Capacity

IntraHealth International Inc. is a US based nonprofit agency working to improve the health status of individuals, families, and communities. Because health workers save lives, IntraHealth is committed to increasing the numbers of health workers who are present, ready, connected, and safe. For over 30 years, in more than 90 countries, IntraHealth International has empowered health workers to better serve communities in need, fostering local solutions to health care challenges, improving health worker performance, strengthening health systems, harnessing technology, and leveraging partnerships.

IntraHealth leads CapacityPlus, the USAID-funded global leadership project which helps countries address their health worker challenges and contributes to global impact through alliances. CapacityPlus serves

partner countries by offering state-of-the-art expertise, models, tools, training, and analyses adapted to each context. In India, IntraHealth leads the USAID-funded Vistaar Project, which focuses on taking health care knowledge to practice at scale. The Project assists the Government of India in strengthening systems for capacity-building and performance improvement, planning, interdepartmental convergence and collection and use of data for improved service delivery. The Project also supports HRIS pilots in Jharkhand and Bihar.

HRH Global Resource Center

<http://www.hrresourcecenter.org/>

The HRH Global Resource Center (a knowledge management service of IntraHealth's CapacityPlus Project) is a global library of HRH resources, including HRIS focused on developing countries.

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