Data Use Case Study: Using joined-up datasets to improve the targeting of health and nutrition funding in Nepal

Raj Kumar Mahato is a Health and Nutrition Programme Manager for Save the Children. He is responsible for implementing, monitoring and reporting of health and nutrition programmes. He is currently leading, with the Nepal Ministry of Health, a pilot programme – Reaching the Unreachable –that uses joined-up datasets to target subsections of the population that have been overlooked because of national Millennium Development Goal (MDG) aggregates.

A mother and infant sit with a healthworker in a classroom in Naubise, Dhading in rural Nepal. Photo © Aisha Faquir/World Bank

Raj's demand for data and information

"By being able to join different datasets, we are able to see gaps emerge between different groups and geographies. Analysis of such data allows us to better target our programme for those who need it the most, and it helps us ensure that disparities between subgroups and geography are mitigated for in our programme planning."

Aggregated national figures from the past two decades show that Nepal has made significant progress towards achieving the MDGs, particularly on health indicators such as rates of maternal mortality, HIV and AIDS, malaria, and tuberculosis. But despite this good progress at the national level, Raj and his team are aware from their fieldwork that there are significant disparities in health and nutrition, and that some communities are being left behind in the country's development. They want to ensure that the work of Save the Children and other organisations can affectively target these groups and ensure that Nepal's development is inclusive for all. For this, Raj needed to find out exactly who these groups were and where they could be found. He needed to dig beyond the national aggregates to find more detailed data on health and nutrition.

But Raj discovered that he couldn't find the data he needed in one place. Instead the different indicators he was looking for to identify the marginalized populations were fragmented over different systems and reports. This included Nepal's Health Management Information System; the government's National Demographic and Health Survey; Maternal Morbidity and Mortality Survey; Living Standard Survey; and publications from *The Lancet* medical journal. To identify the marginalised groups, Raj needed to find a way to join these datasets up. Raj worked alongside teams from Care, Oxfam and ActionAid to develop an analytical methodology that could compare data from each of the sources and draw out analysis of groups experiencing lack of progress.

Examples of Raj's data use

- **Using joined-up data to guide development interventions:** Raj and his team collated the different datasets into a report that highlighted the population groups in need of development interventions. The report was distributed to both the Government of Nepal and to development actors to support the targeting of their development efforts towards the most marginalised groups.
- **Using joined-up data to inform government strategy**: The joined up data assembled by Raj and his team also informed the development of a new national strategy by the Government of Nepal – the National Strategy for Reaching the Unreached to Reduce Health and Nutrition Inequalities in Nepal (2016–2030). Save the Children is now involved in developing this further and implementing the strategy.
- **Using disaggregated, joined-up data to identify populations most in need**: Through disaggregating the different datasets Raj and his team were able to identify subsections of the Nepali population that had yet to meet certain health and nutrition indicators. They discovered, for example, that although maternal mortality had

dramatically decreased from 850 deaths per 100,000 in 1990 to 229 per 100,000 in 2009, there was significant variance between groups – with the Terai, Madhesi and Dalit castes having much higher maternal mortality rates than the Brahman, Chhetri and Newar castes. This type of data enabled Save the Children to focus its Reaching the Unreachable programme in areas with high populations of disadvantaged socioeconomic groups, including the districts of Banke and Baitadi.

Challenges to Raj having better information

One of the major problems faced by Raj was the **lack of up-to-date data** that was available to him. Some of the data – such as from the Maternal Morbidity and Mortality Survey and the Living Standard Survey – was eight years old. This made it difficult to conclusively target and understand which socioeconomic groups now needed extra support in health and nutrition. Despite some datasets being eight years older than others, Raj and his team had to treat all the datasets equally when joining them together.

Another problem was the **lack of subnational disaggregation** of the data. Most geographic results were based on the four broad developmental regions or the national level rather than the district, village or ward level. Without data disaggregation, Raj could not definitively target specific disadvantaged districts, villages or wards as it was difficult to conclusively join-up data with different levels of disaggregation. Different metadata categorisation of geographical areas in the datasets meant Raj's team had to manually check for discrepancies before joining-up the datasets.

Most of the data that they used were **not in machine-readable format** and many of the official government PDF documents contained **inconsistencies in the font**. This made the work of analysing and reporting the results of the data time consuming as Raj and his team had to manually change the font in the PDFs and then enter the data into their own data systems.