RESEARCH SUMMARY

BAL KUPOSHAN MUKT BIHAR

Some lessons from a rapid assessment

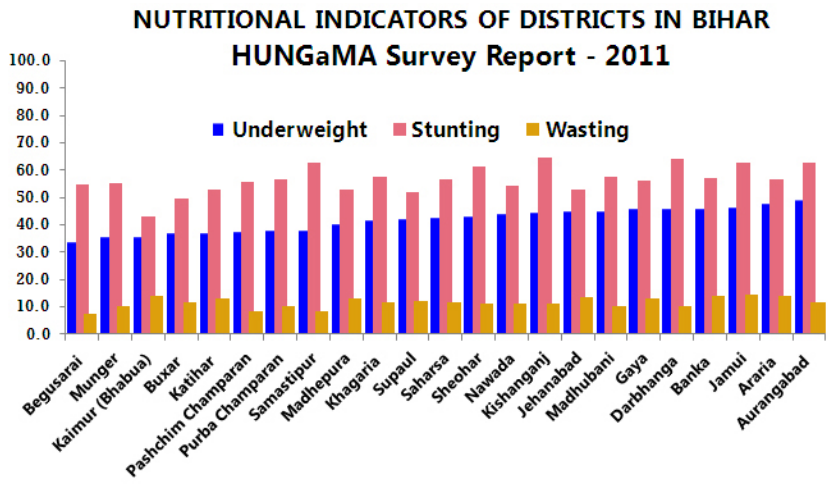
DECEMBER 2015

OBJECTIVES

Appreciating the criticality of nutrition to human development, the Department of Social Welfare (DoSW), Government of Bihar, formally launched the Bal Kuposhan Mukt Bihar (BKMB) or the Child Malnutrition Free Bihar campaign on August 15, 2014 to address the high level of child under-nutrition and bring it down to below 30% among children of up to 3 years of age by 2017.

The BKMB campaign involves different line departments of the state government working on human development under the Manav Vikas Mission (MVM), which is a government initiative for achieving overall human development in the state.

Baal Kuposhan Mukt Bihar Campaign: Genesis



A rapid assessment of the campaign was undertaken after eight months of its launch to assess the campaign and the key output level changes it had brought about. The exercise was also expected to enable DoSW to understand the campaign's effectiveness and make course corrections, if needed.

METHODOLOGY

Using a cross-sectional study design, a rapid assessment of performance and processes adopted in the campaign was conducted to help gauge levels of output, especially knowledge and practices expected as a result of the campaign. A mixed method approach was adopted, combining both quantitative and qualitative research methods for data collection.

A stratified sampling approach was used. Six districts Gopalganj, Nalanda, Jehanabad, Madhepura, Kishanganj and Katihar were selected based on a composite index that was constructed based on key health and nutrition indicators. Districts were then grouped into those having higher or lower composite index than the state and three disctricts from each of these two groups were randomly selected.

Two blocks from each of these districts were selected, one that was located within 30 km of the district headquarters and a second one that was beyond 30 km. In each of the selected blocks, two Gram Panchayats (GPs) were selected through simple random sampling. Finally four Anganwadi Centres (AWCs) were randomly chosen for the study from each of the selected GPs. A total of 96 AWCs from 24 GPs in the 12 blocks of the 6 study districts were covered.

Over 1,200 pregnant women, lactating / nursing mothers, and mothers of 6- 36 month-old children registered across these selected AWCs were randomly chosen and interviewed. Besides, all Anganwadi Workers (AWWs) from the centres, Lady Supervisors, Child Development Project Officers (CDPOs) and District Programme Officers (DPOs) at the district level and other state level stakeholders including representatives from Integrated Child Development Services (ICDS) were also interviewed.

The Government of Bihar (GoB) setup the Manav Vikas Mission (MVM) for 2013-17 with an aim to introduce a range of interventions that facilitate holistic development of human potential in each individual, especially those belonging to the most disadvantaged groups. Bal Kuposhan Mukt Bihar (BKMB) campaign is one out of several initiatives taken up by the different departments of GoB to support MVM. The strategy included - communication for behavioural change; capacity building for providers; improving community's access to services; enlisting community participation; and encouraging a collective approach. The three key activities of the BKMB campaign included – training of Integrated Child Development Services (ICDS) functionaries, provision of equipment and supplies to the Anganwadi Centres and an behaviour change communication campaign for community people.

The Campaign and its Outreach

Training of Service Providers

The training of ICDS functionaries operating at AWCs, sector, project and district levels was one of the important activities undertaken across all the 38 districts of Bihar. The BKMB campaign had specific focus areas on which the training was provided. About 98% of the AWWs attended the training between September and October 2014. Booklets on BKMB for AWWs and communities were received by 46.9% of the AWCs and 21.9 % of the communities.

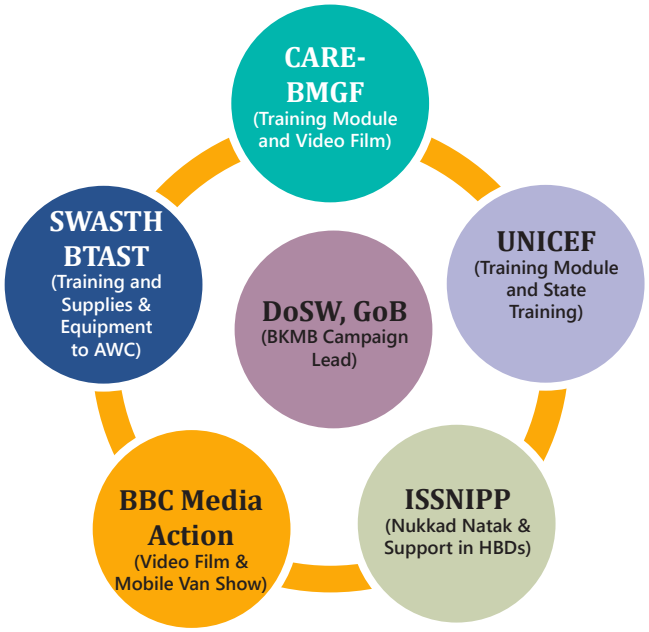
Information and Education

Several activities such as advertisements through print and broadcast media, mobile van shows, street theatre *(nukkad natak)* and video film shows were also undertaken as a part of the campaign to convey key nutrition messages to a wider audience. This was done state-wide and the messages emphasised on the adoption of appropriate behaviours and practices for addressing child under-nutrition. Street theatre was held in 10% of the villages in the 38 districts, and mobile van shows were conducted in 3,000 villages of 15 districts. 63% of AWWs recalled attending awareness meetings organised in the communities, 26% mentioned street theatre and 8.3% referred to mobile van shows conducted in their villages as a part of the BKMB campaign. A very small proportion of the beneficiaries (pregnant women and mothers), however, reported attending none of the community meetings, street theatre or mobile van shows.

Anganwadi Vikas Samiti (AVS)

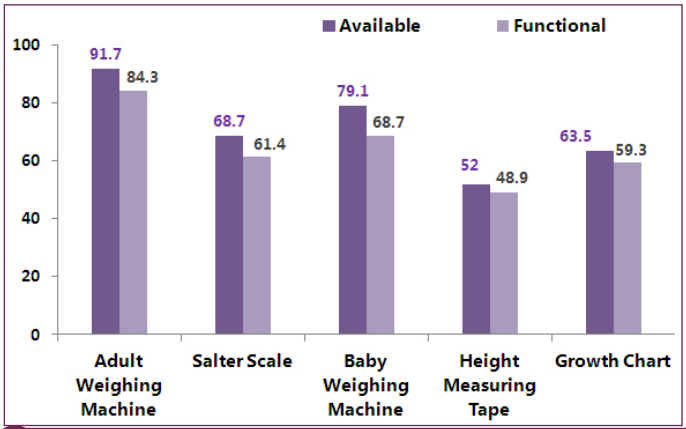
One of the key strategies of the BKMB campaign was to promote community participation and ensure transparency in the services of AWCs through the formation of AVS. Its membership includes Panchayat members, Accredited Social Health Activists (ASHAs), Auxiliary Nurse Midwives (ANMs), AWWs, teachers and beneficiaries like mothers of young children. AVSs were formed in 92% of AWCs, but at the time of the assessment meetings had been held in 52% of the AWCs. About 41% of the AWWs said that the AVS meetings were held on Take Home Ration (THR) days as per the guidelines, and 68% mentioned that the AVS had organised community awareness meetings on BKMB. However, only a negligible percentage of beneficiary respondents (1.8 %) were aware of the AVS and hardly any of them had participated in the community awareness meetings organised by the AVs.

BKMB Campaign: Stakeholder Engagement

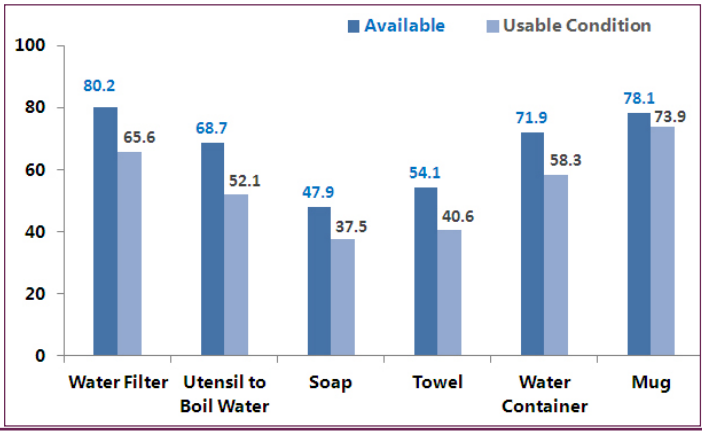


Equipment and Supplies at AWCs

Growth Measuring Instruments



Equipment for Safe Drinking Water



Equipment and supplies

Since there is lack of adequate equipment and supplies in many AWCs, the campaign provided several essential items to all AWCs. The assessment found that about three-quarters of AWCs had received 11 essential equipment and supplies (adult weighing machine, salter scale, baby weighing machine, water container, height measuring tape, growth chart, towel, mug, water filter, utensil to boil water and soap). Some of the AWCs had some of the equipment before the launch of BKMB campaign.

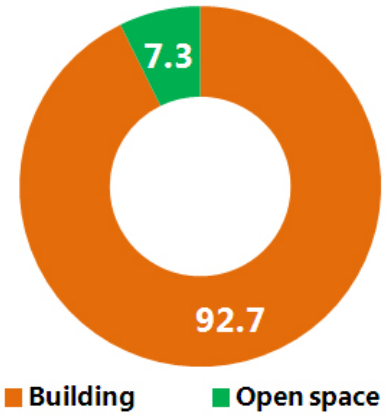
Growth Chart, an essential requirement for plotting weight and age of the child to determine nutritional status, had been received by 66% of AWCs. It was seen that adult-weighing machines were available in 92% of AWCs, but were in functional condition in 84% of the centres. While salter scales were available in 64% of AWCs, these were in functional condition in 61% of the centres. While 79% centres had baby-weighing machines, these were in usable condition in 69% centres. Likewise, 72% centres had height-measuring tapes, but these were in usable condition in 49% of the centres. While a few AWWs had kept the instruments at their homes instead of keeping and using them at AWCs, a few of them had not yet started using the instruments.

Water-filters were available in 80% of AWCs, but these were in a usable condition in only 6% centres. In about 15% of AWCs the filters were already damaged after a few months of procurement. Likewise, water boiling utensils were available in 69% of AWCs, but these were in a usable condition in 52% of the centres.

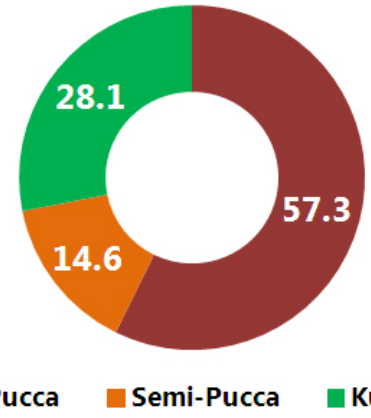
Of the 96 AWCs studied, 72% of AWCs were provided funds for fuel to boil water. However, important supplies like Oral Rehydration Salts (ORS) and zinc tablets for treatment and management of diarrhoea were received by only 28% and 15% of AWCs respectively. Only 9% of the centres received de-worming tablets / syrups and 3% of the centres received medicine kits. ORS, zinc solution and de-worming tablets were in usable condition or not-expired condition in only 11%, 7% and 5% of AWCs respectively.

AWCs FACILITIES (N=96)

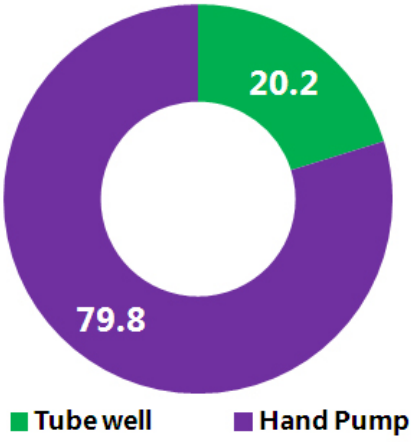
PLACE OF OPERATION OF AWCs (IN %)



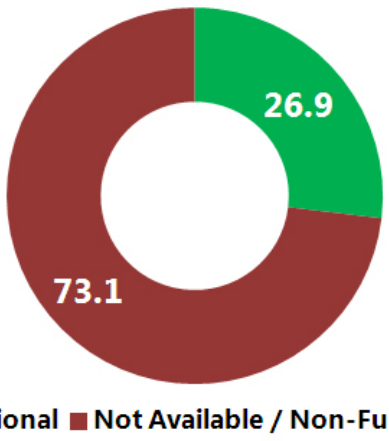
TYPE OF AWC BUILDINGS (IN %)



SOURCE OF WATER AT AWCs (IN %)



STATUS OF TOILET FACILITY AT AWCs (IN %)



The Campaign Results

Knowledge and Practices

The assessment showed that a majority of AWWs, who were trained, could recall 'sanitation & hygiene' (94.6%), followed by 'child malnutrition' and 'complementary feeding' (90.3%) and 'exclusive breastfeeding' (74.2%) as the topics that were discussed in their training. While 24.7% of AWWs recalled 'home visits', only 18.3% recalled 'AVS', and 15.1% and 8.6% mentioned 'stunting' and 'food intake during & after illness' respectively. This despite the fact that these important topics were emphasised during the campaign.

The assessment found mixed results on the extent of its reach and effect of the information and education campaign (IEC). Only 29.5% of AWWs could correctly mention that 'under-nutrition can be identified by the measurement of weight and plotting it on WHO growth chart with age', but this was hardly known to the beneficiaries (only 2% were aware of it). The 'need for regular growth monitoring' was known to only 18.9% of AWWs and 4 % of beneficiaries.

Several AWWs seemed unfamiliar about different types of under-nutrition. Although 69% of AWWs knew about underweight, 55% knew about stunting and only 41% knew about wasting. A greater proportion of beneficiaries (32%) were aware about weight measurement than about height measurement (14%).

Only about half of AWWs (54%) interviewed could correctly say that less than 2.5 kg is considered as the low birth weight for a baby. This was correctly known to 12% of the beneficiaries.

A large number of AWWs showed good knowledge of breastfeeding practices. While 95% knew the time (i.e., within 1 hour) when the newborn should be breastfed for the first time, 96% knew about exclusive breastfeeding, and 99% knew about the feeding of first milk/colostrum to the newborn. However, only 5% of AWWs knew that 'if the child urinates 6 to 8 times in a day, then the mother would know that the child is getting enough breast milk during exclusive breastfeeding'. Amongst beneficiaries, 62% knew the time when the newborn should be breastfed for the first time, 72% knew about exclusive breast feeding, and 83% knew about the feeding of first milk to the newborn.

About half of AWWs could correctly cite the number of times that a child between 6 to 9 months (51%) and 9 to 12 months (50%) should be fed, whereas only a third knew correctly about the same for the age group of 12-24 months (36.5%). Only 28.1% of AWWs knew that the child of the age group of 6-9 months should be fed breast milk and soft/semi solid foods like dal, rice, khichidi, egg and oil. This was known to only 1.5% of beneficiaries.

While the majority (94%) of AWWs knew that the ORS treatment should be provided to children aged more than 6 months suffering from diarrhoea, only 22% knew about providing zinc tablets /solution. Among the beneficiaries, only 21 knew about ORS treatment and 1.2% knew about zinc supplementation.

Knowledge of AWWs about feeding practices of children 6-36 months of age, feeding during and after illness was found to be weak. Less than half of AWWs knew about feeding extra food (44%) and continuing breastfeeding (43%) during fever in children above 6 months.

Observations of hygiene practices of AWWs showed that only 17% of AWWs washed their hands before serving food to children; 21% helped children to wash their hands with soap before eating food, and 7% helped children to wash their hands with soap after eating food. Only a fourth of AWWs stored drinking water in water filters, and 5% boiled water before storing in water filters.

- 94% AWCs were open at the time of first visit for the study.
- 86.5% AWHs were present at the AWC at the time of visit.
- 66.7% of AWCs can be approached by all weather road.

Contrary to the popular perception, it was found that nearly 94% of AWCs visited were opened on or before their scheduled times. Irrespective of whether they opened on time, AWWs were present in 85% of centres. However about 7% of these AWCs were operating in open spaces and had no building. Of the remaining AWCS, which operated from a building, only half had a pucca building. Although most had access to drinking water, nearly three quarters of them did not have toilet facilities.

The Campaign Results

Provider views

Training of Service Providers: The training of the ICDS functionaries (operating at AWC, Sector, Project and District levels) on BKMB was one of the important activities undertaken across all the 38 districts of the

State. Data collected from AWWs revealed that 98.4% of AWWs attended the training on BKMB held at the block level between September and October 2014 as per the initial plan. Booklets prepared on BKMB for AWWs and communities were received by 46.9% and 21.9% of centres respectively

Information and Education

A state-wide IEC-BCC campaign, which stressed on the adoption of appropriate behaviours and practices for addressing child under-nutrition, included issuing advertisements on TV and print media, providing posters to all AWCs, holding *nukkad nataks* shows, video film shows on mobile vans and distributing tablets to individual beneficiaries in selected villages in difficult areas. *Nukkad Nataks* were held in only 10% of the villages in the 38 districts, whereas mobile van shows were held in 3,000 villages of 15 districts.

63.5% of AWWs reported that awareness meetings were organised in the communities, followed by 26% who mentioned about *nukkad natak* and 8.3% informed about mobile van shows conducted in their villages as a part of the BKMB campaign.

Nukkad Nataks, mobile van shows and community awareness meetings were conducted in a few selected villages and did not reach out to most beneficiaries, mainly mothers of 6-36 month-old children, pregnant women and nursing mothers targeted under the campaign.

Anganwadi Vikas Samiti (AVS)

The BKMB campaign's strategic approach to promote community participation, undertaken through formation of Anganwadi Vikas Samiti (AVS), has twin-aims: to ensure transparency in the services of AWCs and to enhance community ownership of the campaign. Its membership includes Panchayat members, ASHA workers, teachers, ANMs, AWWs and beneficiaries like mothers of children.

AVSs were formed in 91.7% of AWCs, but meetings were held in only 52.1% of AWCs in the month preceding the field interviews. 41.5% of the respondents said that the AVS meetings were held on Take Home Ration (THR) days as per the guidelines.

Like the IEC-BCC campaign, only a negligible percentage of beneficiaries (1.8%) were aware of AVS functioning in their villages and hardly any of them participated in the community awareness meetings organised by AVSs, which points to the lack of reach of AVSs to target beneficiaries, especially mothers of children in the 3-36 month age bracket, and pregnant women and lactating mothers as envisaged under the BKMB campaign.

Equipment and Supplies

Over three-fourth of the AWCs had received 11 essential equipment and supplies (adult weighing machine, salter scale, baby weighing machine, water container, height measuring tape, growth chart, towel, mug, water filter, utensil to boil water and, soap).

Growth Chart, an essential requirement for plotting weight and age of the child to determine nutritional status, was received by nearly two-third or 65.6% of AWCs. According to the assessment, 59.3% of AWCs were having growth-measuring chart in usable condition as against 63.5% of centres possessing the same.

According to the observations made in AWCs, adult-weighing machines were available in 91.7% of the centres and were in functional condition in 84.3% of AWCs. While salter scales were procured by 74% of AWCs, they were available in 68.7% of the centres and were in functional condition in 61.4% of the centres.

Of the 79.1% centres with baby-weighing machines, the machines in 68.7% of the centres were in usable condition. Likewise, height-measuring tapes were in usable condition in 48.9% of the centres out of 71.9% centres, which had procured these tapes.

(It is important to note that some AWCs had some of the equipment before the launch of BKMB campaign. It was also observed that a few of AWWs kept the instruments at their homes instead of keeping and using them at AWCs, while a few of AWWs had not even opened the packaging of the instruments after the procurement.)

Overall campaign effectiveness

Lady Supervisors (LSs) felt that the provision of weighing machines and growth charts had helped to promote information about the campaign. They also felt that BKMB had been more beneficial to them than the earlier programmes.

They reported that it has led to a greater awareness about malnutrition generally and about cleanliness amongst children, and better knowledge dissemination among community members on providing vaccinations to their children. Tetanus Toxoid vaccination amongst pregnant women and health check-ups during the Village Health, Sanitation and Nutrition Days (VHSNDs) were also reported to have increased.

According to CDPOs and DPOs, pregnant women were now paying more attention to their own health and nutrition as well as that of the children than in the past. A couple of CDPOs also felt that earlier parents were not very careful about the

cleanliness of their children, but after their children started visiting AWCs, they are much more aware and focused towards their cleanliness and sanitation.

CONCLUSION AND RECOMMENDATIONS

The rapid assessment carried out eight months after the BKMB campaign brought out some encouraging findings and also identified gaps and constraints, which require to be overcome to streamline and strengthen the processes and activities of the campaign.

The assessment showed the need for more attention to filling gaps in knowledge of AWWs with regard to the feeding practices of children of 6-36 months; feeding during and after illness; method of measuring growth, etc. The corresponding knowledge of beneficiaries on these topics was found to be even weaker.

This calls for a concerted strategy to reach the target beneficiaries with important messages. The assessment also found low coverage of the information and education campaign in terms of its geographic spread and participation of target beneficiaries.

Large scale campaigns such as the BKMB involve large resources and have the potential to improve immediate conditions within a short duration. A few recommendations are given below to make them more effective:

- **Training:** The training sessions can be structured in a manner that they are participatory and engaging with use of visual techniques, conducted over a reasonable duration and in phases for the messages to be absorbed effectively. Pre-post training assessments can help further improvements.
- **Monitoring and Supervision:** Lady Supervisors (LSs) across the state can be trained to track, monitor and handhold AWWs, and in turn can be supported through positive feedback and supportive supervision from ICDS officials to them to ensure campaigns are effective at the AWC level. The indicators in the AWC monitoring format may be revisited to include the tracking of the practices promoted under BKMB. The monitoring system at the state level may be established, which would help to streamline the monitoring at the district, block and AWC level.
- **Decentralised procurement system:** This should be continued to enable AWWs to directly procure the equipment, but with a mechanism to ensure quality and technical specifications are adhered to. A rapid assessment of the effectiveness of current system can help to develop appropriate procurement guidelines and measures.
- **Communication campaigns:** *Nukkad Nataks* and mobile van shows have been successful in conveying messages and are a powerful too of communication that should be continued. These shows could be done as part of the activities of AVS through untied funds. The messaging in these as well as the audio/video shows should be simple and in accessible language. Consulting and enlisting the support of AWWs and LSs from each district, to finalise BCC scripts could help.

  Also an effective mobilisation of the community should be done to ensure greater participation of beneficiaries at these events. Further, consultation with LSs and AWWs on the selection of Panchayats and villages for BCC should be encouraged.
- **Anganwadi Vikas Samiti:** AVS may be strengthened and supervised to reinforce community-level behaviour change. An assessment of the contributions made by different members in AVS will provide for clear guidelines for engagement of AVS. This is necessary because AVS has the sole authority for monitoring the BKMB activities. The date of the AVS meeting may be aligned with the day of the THR distribution to tap all beneficiaries gathered at the AWC.
- **Convergence:** Working with the Department of Health would help ensure essential supplies like ORS, Zinc tablet and medicine kits to AWCs for treatment and management of diarrhoea and illnesses.

SECTOR WIDE APPROACH TO STRENGTHENING HEALTH (SWASTH)

Government of Bihar Initiative Supported by DFID, UK

The SWASTH programme aims to improve the health and nutritional status of people of Bihar by increasing access to better quality health, nutrition, and water and sanitation services, particularly for the underserved groups. The focus of this programme is to strengthen the systems through better planning, organisational strengthening & human resource management, decentralisation and convergence among key departments. The programme also uses community level processes to manage, demand and monitor services.

The assessment was done by DCOR Consulting Pvt Ltd. with inputs from the BTAST MLE and Nutrition Teams. This summary is based on report submitted by DCOR.

Sector Wide Approach to Strengthening Health (SWASTH) in Bihar, Government of Bihar Initiative Supported by Department for International Development (DFID), UK

Bihar Technical Assistance Support Team (BTAST)

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