



Improving Care-Seeking Pathways and Community Perceptions for Reducing Childhood Pneumonia and Diarrhoea in Uttar Pradesh and Bihar

A CALL TO ACTION

KEY TAKEAWAYS

1. Strengthen community awareness programs related to underlying causes of pneumonia and diarrhoea.
2. Improve quality of care at public health facilities by focusing on improving patients' perceptions and increasing satisfaction.
3. Improve utilization of public health services by socioeconomically disadvantaged and underserved populations.

Nearly 2 out of 3 deaths in low- to middle-income countries could be averted if health interventions are adequately utilized. Delay in care seeking occurs at multiple decision-making levels, including seeking care, accessing care, and receiving care. Addressing factors that cause delays in care seeking is central to promoting appropriate care-seeking behavior by caregivers. This, in turn, can improve health and reduce child mortality by rapid diagnosis and improved treatment compliance.

The **Research and Evaluation for Action in Child Health (REACH)** project, supported by the Bill & Melinda Gates Foundation, gained insights from stakeholders to prioritise actionable recommendations for improving both care-seeking pathways and community perceptions related to childhood pneumonia and diarrhoea.

Using a mixed methods approach, the REACH project conducted the following to frame actionable recommendations:

- A literature review to synthesize the existing evidence in the field and explore gaps in care-seeking pathways for child health in Uttar Pradesh and Bihar.
- Quantitative surveys to understand existing care-seeking pathways and community perceptions.
- Qualitative inquiry to synthesize actionable learning from key stakeholders in child health:
 - frontline workers;
 - government officials at the state, district, and block levels;
 - government and private healthcare providers; and
 - experts in the area of child health in India.

Recommendations to Improve Care-Seeking Pathways

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“When someone listens to a thing repeatedly, it definitely has an effect. So, with awareness we will be able to achieve it [health].”

– government official

“Yes they run late for girl and come fast (to the health facility) for the boys, there are discrimination in the village.”

– ASHA worker

“...that quacks are very polite in behavior and when you come here there is so much load on the doctors that they doing their work but not able to have a conversation. Since there is no conversation people think that doctor did not interact.”

– Government doctor

RECOMMENDATION 1

Strengthen community awareness programs related to the underlying cause of pneumonia and diarrhoea

EVIDENCE

- Lack of knowledge about sanitation and appropriate nutritional practices is prevalent in communities.
- Caregivers inability to identify early symptoms of illnesses contributes to care-seeking delays.
- Care seeking varied by gender of the affected child, with preference for care given to a boy child and significant delays in seeking care for a girl child.
- Low community awareness around government-sponsored programs and entitlements is widespread.

ACTION

- **Design community awareness programs and strengthen existing ones**, with a focus on preventive care, causes of infectious diseases, and proper sanitation and nutrition practices. This also could include greater focus on improving caregivers' awareness to identify critical symptoms of childhood pneumonia and diarrhoea. Use existing platforms, such as the Village Health Sanitation and Nutrition Day, to increase health awareness.
- **Use mass media to intensify gender-sensitive messaging**, focusing on female literacy and gender equality and encouraging community-based women's self-help groups to advocate for improved health outcomes for the girl child.
- **Improve distribution of government-issued health-related information, education, and communication materials**—such as pamphlets and posters—with information on existing programs and resources for child health services.
- **Involve community leaders in health campaigns**, such as village pradhans, heads of prominent families, and informal providers.



RECOMMENDATION 2

Improve quality of care at public health facilities by focusing on improving patients' perceptions and increasing satisfaction

EVIDENCE

- Poor perceptions of government health facilities can make convincing communities to use government services a challenge for ASHAs. Other concerns include a lack of trust in the public health system caused by the unavailability of staff, infrastructure and medicines and by increased out-of-pocket expenses.
- Around 95% of caregivers preferred seeking care at informal and private facilities because (1) they experience better health outcomes when they use services from private or informal providers as compared with government providers, and (2) there is a strong element of trust towards these providers because of their community presence and word-of-mouth recognition.
- Lack of attention and disrespectful behavior by doctors in public health facilities negatively affects the patient-provider relationship and contributes to a lack of utilization of government services
- There is a severe shortage of medically trained staff, including specialized staff at the Community Health Centres and Primary Health Centres; for example, a shortage of Class IV employees such as ward boys. This leads to overburdening doctors with multiple responsibilities, including outpatient, inpatient, and emergency services. Most vacancies at rural facilities remain unfilled.

ACTION

- **Ensure quality control at government health facilities at multiple levels**, including diagnosis and screening, procurement of medications, presence of trained personnel, patient treatment plan, and follow-up.
- **Ensure staff training on interpersonal communication**, especially behavioral conduct with patients.
- **Ensure timely resolution of patient grievances** relating to misbehavior and/or negligence from hospital staff.
- **Ensure patients have feedback mechanisms to share their concerns** with top-level leadership in government hospitals. Standardized satisfaction surveys could be used to understand patients' experiences and challenges at government facilities.
- **Devise innovative ways to retain health workers in government facilities** by improving the remuneration structure for the workforce, providing career development, and improving the workplace by incorporating employee-friendly policies.

"They [government doctors] don't give us much attention, they don't give attention to poor people."

– Community member

"In the government hospital, someone who has more money got their number before us. I have gone once and spent 4 hours in the queue."

–Community member

"There are many facilities that are not available here. Like medicine, etc. Some of the time when family comes and there is no facility for mother they don't want to admit their children too. They say that they will go to private. We do whatever we can do."

–Government nurse

"After that they have to come to us, after the case gets out of hand they will refer it to government hospital."

–Block programme officer



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“Basically, there is a problem of staff here, we do not get trained staff. We cannot handle everything alone here. There is a big problem of file support and field staff.

– Private doctor

TO LEARN MORE

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RECOMMENDATION 3

Improve utilization of public health services by socioeconomically disadvantaged and underserved populations

EVIDENCE

- Care seeking is delayed by patients who are economically disadvantaged and live in remote areas. A majority of severe pneumonia and diarrhoea cases occur in this group.
- Informal providers are typically the first point of contact in poor and remote communities because of the ease of access, low cost of treatment and medicines, round-the-clock availability, and established community trust and rapport. Care seeking with ASHAs as the first point of contact is low, with only 1% and 7% of caregivers in Uttar Pradesh and Bihar, respectively, actively seeking care from them.
- Unavailability of and poor primary care services—such as lack of transport facilities, poor quality of medicines or services, and lack of staff—contribute to delays in care seeking by socioeconomically disadvantaged and underserved populations.

ACTION

- **Actively collaborate with informal providers**, including leveraging the existing network of informal (and private) providers by encouraging them to refer cases to government health facilities. This could include word-of-mouth referrals or setting up a formalized mechanism.
- **Conduct regular counselling and educational sessions** to motivate socioeconomically disadvantaged groups to seek timely and adequate care.
- **Encourage outreach efforts by public and private providers** in the form of health-related screenings and camps in underserved areas to ensure timely detection and referral of cases.
- **Engage private providers** by formulating guidelines and policies that encourage their participation in government health programs to make healthcare more accessible and affordable for socioeconomically disadvantaged and underserved populations.
- **Improve retention of health facility staff** with incentives, such as benefits, better salaries, and improved professional stature for postings in remote hard-to-reach areas.

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This REACH Call to Action brief was made possible by the support of numerous individuals and institutions. RTI International would like to thank the Bill & Melinda Gates Foundation for providing funding and project guidance. We also would like to thank our implementation partners—the University of Manitoba in Uttar Pradesh and CARE in Bihar—for providing us the environment in which to carry out this research. We also want to express our appreciation for Kantar Public, our survey data collection partner. Finally, we owe immense gratitude to all the study participants, key informants, and beneficiaries who shared their valuable time, information, and insights.

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Addressing the Know-Do Gap among Frontline Health Workers in Uttar Pradesh and Bihar and Positioning Them as Providers of Care for Childhood Pneumonia and Diarrhoea

A CALL TO ACTION

KEY TAKEAWAYS

1. Reinforce ASHAs' role as community mobilisers and ANMs' role as the first point-of-contact in the community for primary care for childhood illnesses.
2. Strengthen supervisory support of ASHAs to provide meaningful mentorship.
3. Strengthen key components of the ASHA programme, such as accountability in the selection process and performance and by providing necessary support services.
4. Build the capacity of ASHAs for equitable community engagement.

Accredited social health activists (ASHAs), trained female frontline health workers present in every village in India, are integral to the Integrated Action Plan for Prevention and Control of Pneumonia and Diarrhoea (IAPPD) launched by the National Health Mission of the Government of India in 2014. ASHAs are expected to diagnose and treat nonsevere pneumonia and diarrhoea and refer severe cases to health facilities. Consequently, ASHAs are key actors in the early detection and appropriate management of childhood pneumonia and diarrhoea, but their quality of services is often inadequate because of insufficient training, poor education and awareness levels, low patient volume, and inadequate supervisory support. This has created a 'know-do gap' where effective, evidence-based therapies (the 'know') are not being implemented to reach people who need them (the 'do').

The **Research and Evaluation for Action in Child Health (REACH)** project, supported by the Bill & Melinda Gates Foundation, gained insights from stakeholders to prioritise actionable recommendations for bridging the 'know-do' gap among frontline health workers (FLW) and positioning them as providers of care for childhood pneumonia and diarrhoea.

Using a mixed methods approach, the REACH project conducted the following to frame actionable recommendations:

A literature review and quantitative surveys to synthesize the existing evidence in the field around the know-do gap among frontline health workers in Uttar Pradesh and Bihar.

- Qualitative inquiry to synthesize actionable learning from key stakeholders in child health, such as frontline workers;
 - government officials at the state, district, and block levels
 - government and private healthcare providers; and
 - experts in the area of child health in India.

Burden of implementing multiple strategies shifts the focus of ASHAs from their key responsibilities
– Qualitative inquiry

Significant gap between knowledge and skills of ASHAs to identify key signs of childhood pneumonia and diarrhoea
– REACH frontline worker survey

Caregivers do not consider ASHAs as care providers for childhood illnesses
– REACH community survey

Recommendations to Address the Know-Do Gap Among Frontline Health Workers

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“ASHA trainings are conducted yearly. Around 6 to 7 modules are being covered in the training.”

– Block Programme Manager

“Recently, there was diarrhoea week where ASHA and ANM were trained at the district level...however, we do not have any feedback from ASHA.”

– Assistant Chief Medical Officer

“I don't think [all] ASHAs know how to identify the cases of pneumonia and diarrhoea now...so ASHA has to do it jointly with ANM.”

– Quote attribution

“We give training to both ANMs and ASHAs. If they are visiting a village, found that the kid is suffering from pneumonia or diarrhoea and ASHA is unable to understand then there ANM will help her to understand the symptoms.”

– Block programme manager

RECOMMENDATION 1

Reinforce ASHAs' role as community mobilisers and ANMs' role as the first point of contact in the community for primary care for childhood illnesses

EVIDENCE

- The community perceives that ASHAs (accredited social health activists) refer care seekers to health facilities to earn incentives. The ASHA training module has a component on empathising and building rapport with the community, but ASHAs struggle to build their reputation with community members.
- System challenges include incentives being late, not provided, or deducted if service targets are not met.
- Multiple parallel programmes are implemented through ASHAs and ANMs (auxiliary nurse midwives). In the process, surveillance for childhood pneumonia and diarrhoea—a key responsibility of ASHAs—gets deprioritised.
- Because they receive multiple trainings on program implementation, ASHA modular training also gets deprioritised.
- ASHAs are usually overburdened and sometimes fail to serve the entire population in a timely manner because of a large population base, vast catchment area, or difficult terrain.

ACTION

- **Reduce the burden of frontline health workers** by clearly defining their key priority areas. As initially envisioned by the ASHA programme, ASHAs should play the role of community mobilisers to effectively spread messages on preventive care and care seeking for childhood pneumonia and diarrhoea.
- **Rationalise activities of ASHAs and ANMs, rather than involving them in every government strategy** implemented at the community level. Programme implementation plans should budget for employing other volunteers when implementing certain programmes.
- **Deploy additional ASHAs** in high-population and hard-to-reach areas to improve availability of ASHAs in areas where the need is greatest.



RECOMMENDATION 2

Strengthen supervisory support of ASHAs to provide meaningful mentorship

EVIDENCE

- Typically, only a few ASHAs meet with their supervisors and even fewer receive supervisory support. However, when they receive regular mentorship, they demonstrate more knowledge and skills to identify the signs of childhood pneumonia and diarrhoea.
- Although the National Health Mission recommends a supervisor to support only 20 ASHAs, currently a supervisor may support as many as 40 ASHAs.
- ASHAs meet with their ANM supervisors on the Village Health, Sanitation, and Nutrition Day but the primary focus is on immunisation services and other immediate deliverables and rarely on communicating messages in the community or skill building.¹
- ASHAs generally have very poor educational attainment—sometimes not even meeting the recommended guidelines of having passed Standard 8—which creates challenges for them in fulfilling their job functions

ACTION

- **Provide ongoing supervisory support to ASHAs** via a formal mechanism of ANM directly mentoring them. Also, train ANMs on mentorship and counselling.
- **Leverage Village Health, Sanitation, and Nutrition Days as a skill-building platform for ASHAs**—especially for interpersonal communication around preventive healthcare, nutrition, and sanitation practices—using innovative approaches such as interactive sessions and demonstrations of cooking healthy food.
- **Strengthen supportive supervision of ASHAs**—especially rigorous support for underperforming ASHAs—by bringing in more ANMs where required (per National Health Mission guidelines) and using innovative techniques such as geotracking.

“ASHAs go door to door, what they inform and what the ANM would inform there would be much different between both of them.... Whatever is told by ASHA and by me there is lots of difference.”

– ANM

“Have you heard about the IDSP, integrated disease surveillance project...? So according to this project, the ASHAs have the responsibility of surveillance of diseases in their area.”

– Quote attribution

“So if we think that after distributing the zinc ORS there is still an outbreak of diarrhoea, then ASHAs immediately inform the ANMs and ANMs inform the PHC; then the medical team goes in the community and treats the patient and if any case is critical then they refer to the hospital.”

– District programme manager





“Training...they (ASHAs) have induction. And when there are programmes then for that, specific trainings are planned... there are different trainings for different programmes.”

– Assistant Chief Medical Officer

TO LEARN MORE

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RECOMMENDATION 3

Strengthen key components of the ASHA programme, such as accountability in the selection process and performance and by providing necessary support services

EVIDENCE

- ASHAs face challenges caused by the unavailability of support services, such as transportation to the facility, reimbursement for services, and replenishment of ASHA kits.
- Home-Based Care for Young Child (HBCY) guidelines recommend giving oral rehydration salts (ORS) to every child at 3, 6, 9, and 12 months. Currently, ASHAs are regularly provided with ORS, but the number of sachets is calculated on the number of households and not on the number of children served.
- According to the HBCY guidelines, ASHAs should have passed Standard 8, yet women lacking even a primary education are being selected as ASHAs. For example, relatives of influential persons in the village—such as the daughter-in-law of a Panchayat Pradhan—are selected as an ASHA even if they do not meet eligibility criteria.

ACTION

- **Expedite implementation of HBYC** and ensure that HBYC guidelines are followed, such as home visits and supportive supervision.
- **Monitor the ASHA selection process** via higher authorities using a transparent and accountability-based framework.
- **Continually replenish ASHA kits** on an as-needed basis. ORS should be provided based on the number of children served, not on the number of households served.
- Provide incentives and motivation for ASHAs, such as insurance benefits and higher education opportunities.

RECOMMENDATION 4


Build the capacity of ASHAs for equitable community engagement

EVIDENCE

- ASHA training module includes practical skill-building, but this is often not communicated properly.
- ASHAs have no mechanism to provide feedback about the trainings they receive.
- ASHAs' knowledge level is typically moderate on the signs of childhood diarrhoea and very low on the signs of pneumonia, and their skills to identify these signs are extremely low. This creates a significant know-do gap, specifically for pneumonia diagnosis.
- ASHAs lack a mechanism to prioritise visits to vulnerable children

ACTION

- **Enhance hands-on trainings** for ASHAs to complement knowledge-focused trainings, such as a tailored Integrated Management of Newborn and Childhood Illness module.
- **Follow up skill-development trainings** with refresher trainings to avoid skill degradation.
- **Develop a feedback mechanism** to improve ASHA training programmes.
- **Train ASHAs** to identify vulnerable children.



Affecting Policy Change Around Childhood Pneumonia and Diarrhoea in Uttar Pradesh and Bihar

A CALL TO ACTION

KEY TAKEAWAYS

1. Improve the quality of care provided through public health facilities by strengthening infrastructure and human resources.
2. Converge Health Department activities with departments of Education, Women and Child Development, Panchayati Raj, and Drinking Water and Sanitation.
3. Engage with informal private providers for appropriate management and timely referral of under-five pneumonia and diarrhoea cases.
4. Improve the quality of Health Management Information System data and use it for evidence-based decision making.

India contributes the highest global share of under-five deaths. Pneumonia and diarrhoea are the leading infectious causes of death in children, accounting for 25% of under-five deaths globally. Under-five mortality rates for Uttar Pradesh (47 deaths per 1,000 live births) and Bihar (43 deaths per 1,000 live births) are significantly higher than India's national under-five mortality rate (39 deaths per 1,000 live births). A recent study on under-five mortality of Indian districts with reference to Sustainable Development Goals (SDG-3) illustrates that none of the districts in Uttar Pradesh and only a quarter of districts in Bihar will be able to achieve the SDG-3 target of under-five mortality by 2030.

The Integrated Action Plan for Prevention and Control of Pneumonia and Diarrhoea (IAPPD) launched by the National Health Mission of India in 2014 has had mixed results in the prevention, control, and treatment of pneumonia and diarrhoea. Lack of efforts in converging various government departments, implementing existing policies related to child healthcare and the unavailability of evidence to make policy changes where required resulted in an inefficient public health system for delivering appropriate care. Creating an enabling policy environment around child health will facilitate improving the quality of care for childhood pneumonia and diarrhoea at all levels and help achieve the SDG for India.

The **Research and Evaluation for Action in Child Health (REACH)** project, supported by the Bill & Melinda Gates Foundation, gained insights from stakeholders to prioritise actionable recommendations for affecting policy change around childhood pneumonia and diarrhoea.

The REACH project conducted the following to frame actionable policy recommendations:

- A literature review to synthesize existing evidence around the policy environment for childhood pneumonia and diarrhea.
- Qualitative inquiry to frame actionable learning from key stakeholders in child health, such as frontline workers; government officials at the state, district, and block levels; government and private healthcare providers; and experts in the area of child health in India.

Recommendations to Affect Policy Change Around Childhood Pneumonia and Diarrhoea

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“Give security, give safety, and give commonness, give market and tucking shops. Show them the facilities provided by their government then the people will stay, why not they will stay.”

– Chief Medical Officer

“Anganwadi workers should also be included in the public health programme as they also have a reach to the ground level. If ICDS also supports the public health department then the programme will be more effective.”

– District programme manager

“There is no special programme for pneumonia. If in case any patient of pneumonia comes to our hospital, we check them in minutes and send them to [the] medical college where a pediatrician is available.”

– Medical officer in-charge

RECOMMENDATION 1

Improve the quality of care provided through public health facilities by strengthening infrastructure and human resources

EVIDENCE

- Issues at public health facilities range from
 - overcrowding at higher-level facilities,
 - lack of ownership for resources,
 - poor behavior towards patients,
 - nonfunctioning equipment,
 - low user satisfaction, and
 - weak monitoring and evaluation of quality of care.
- Lack of skilled human resources creates a service provision bottleneck, including gaps in availability of medical officers, specialists, staff nurses, and other service providers.
- Contract staff are often dissatisfied owing to salary differences with regular government staff.
- Facilities lack essential medicines and functioning equipment, and there are delays in procuring specialized drug supplies through newly implemented automated systems.
- Training for data entry operators is insufficient to equip them for preparing online indents (demand for drugs and consumables).

ACTION

- **State public service commission should consider prioritising filling vacant positions** for medical officers.
- **Streamline preservice training of staff nurses**, strengthen in-service training of nurses using skill labs for trainings, and increase capacity for task-shifting and multitasking.
- **Partner with private-sector hospitals and academic institutes** in a hub-and-spoke model and use innovative approaches like telemedicine to provide treatment services to the last-mile population and capacity building for health staff.
- **Digitise the supply chain at all levels**, to improve accountability and ensure timely supply of essential medicines and equipment.



RECOMMENDATION 2

Converge Health Department activities with departments of Education, Women and Child Development, Panchayati Raj, and Drinking Water and Sanitation

EVIDENCE

- Health Department activities are not receiving enough support from other departments, such as Education, Women and Child Development, and Panchayati Raj, and Drinking Water and Sanitation.
- Mothers lack adequate knowledge and awareness about proper hygiene and sanitation practices.
- Improved sanitation is crucial to preventing diarrhoea as
 - 86% of sampled village households in Uttar Pradesh and Bihar have open drainage systems, which act as a reservoir for the spread of infection; and
 - about 45% of households do not use soap to wash their hands.

ACTION

- **Align multidepartment efforts** to “achieve good health” by strengthening meetings of departmental heads at the central, state, and district levels.
 - Discuss and evaluate cross-cutting program indicators in joint meetings.
- **Engage all sectors and actors** to harmonise the efforts of development partners working in different domains at the village, block, and district levels.
- **Create awareness and facilitate behavior change in the community** by leveraging the Village Health Sanitation and Nutrition Committees and self-help groups.
- **Prioritise community planning to improve sanitation, education, and the overall health of the village**, in collaboration with Gram Pradhan, schoolteachers, ANMs (auxiliary nurse midwives), AWWs (Anganwadi Workers), and ASHAs (accredited social health activists).

Uttar Pradesh and Bihar allocated 5.4% and 4.6%, respectively, of their expenditure towards health in 2019-2020.

(Lit. review. PRS Legislative research <http://prsindia.org/parliamenttrack/budgets/bihar-budget-analysis-2019-20>)

<http://prsindia.org/parliamenttrack/budgets/uttar-pradesh-budget-analysis-2019-20>)

“There are lots of patients which goes to the private practitioners which gives lots of medicines and antibiotics probably an ORS is also given but they never give zinc.”

– Senior government official



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“Pneumonia and diarrhoea numbers reported through HMIS is not of good quality. Even data of IDCF rounds are reported through development partners and is not through HMIS. There should be provision in HMIS for reporting achievements of routine programme instead of reporting data on paper forms.”

– Senior government official

RECOMMENDATION 3

Engage with informal private providers for appropriate management and timely referral of under-five pneumonia and diarrhoea cases

EVIDENCE

- A majority of care-seeking takes place through informal private providers.
- Although private providers are expensive, caregivers consider going to them first because of less waiting time, easy accessibility, and satisfactory treatment.

ACTION

- **Train informal private providers**—including pharmacists, chemists, drug vendors, general stores, and indigenous and folk practitioners—**in the appropriate management of pneumonia and diarrhoea.**
- **Use trained informal providers to raise community awareness.**
 - The Bihar government, for example, has identified around 2,25,000 informal private providers and trained them on making timely referrals to government health facilities through the National Institute of Open Schooling.
- **Establish an accreditation system** for informal private providers.

RECOMMENDATION 4

Improve the quality of Health Management Information System data and use it for evidence-based decision making

EVIDENCE

- Gaps in Health Management Information System (HMIS) data impede appropriate decision making for addressing pneumonia and diarrhoea. Health facilities, for example, do not report or misreport pneumonia and diarrhoea cases.
- HMIS data are not used to review and monitor key indicators related to pneumonia and diarrhoea

ACTION

- **Assess HMIS data quality through multiple parameters, such as**
 - availability,
 - completeness,
 - timeliness,
 - accuracy, and
 - reliability.
- **Ensure staff**—including frontline workers at the block facility level to data entry operators at the district and state levels—**are adequately trained on**
 - data reporting guidelines,
 - indicator definitions, and
 - HMIS reporting templates

TO LEARN MORE

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Improving Quality of Care for Childhood Pneumonia and Diarrhoea at Government Health Facilities in Uttar Pradesh and Bihar

A CALL TO ACTION

KEY TAKEAWAYS

1. Strengthen infrastructure and services—identification, management, and referral—at lower-level health facilities to reduce the caseload at District Hospitals and Medical Colleges.
2. Promote rational deployment of the health workforce at all levels of public health facilities.
3. Improve knowledge, skills, and adherence to protocols of the health workforce.

Poor quality of care in India contributes to more deaths than nonutilisation or access to healthcare services.¹ India's Integrated Action Plan for Pneumonia and Diarrhoea (IAPPD)—which stipulates high-quality care for the control and management of under-five pneumonia and diarrhoea—is a strategic plan to reduce child mortality. Although the Indian Public Health Standards (IPHS) were put in place in 2007 to enhance the performance of public health facilities, Rural Health Statistics data from 2017 show that around 13% of Primary Health Centres (PHCs) and 16% of Community Health Centres were functioning in line with the IPHS standards.

The **Research and Evaluation for Action in Child Health (REACH)** project, supported by the Bill & Melinda Gates Foundation, gained insights from stakeholders to prioritise actionable recommendations to improve the quality of care for childhood pneumonia and diarrhoea at government health facilities.

The REACH project conducted the following to frame actionable recommendations:

- A literature review and quantitative surveys to synthesise the existing evidence in the field around quality of care.
- Qualitative inquiry to synthesise actionable learning from key stakeholders in child health, such as frontline health workers; government officials at the state, district, and block levels; government and private healthcare providers; and experts in the area of child health in India.

A majority of the staff nurses surveyed in Bihar and Uttar Pradesh had not received training on managing pneumonia, diarrhoea, or Facility-Based Integrated Management of Neonatal and Childhood Illness (F-IMNCI).
– REACH facility survey, 2016–2017

Public facilities are not ready to manage severe cases... a majority of rural patients go to private facilities, not to ASHAs or block facilities.
– REACH facility survey, 2016–2017

¹ Kruk, M. E. et al. (2018). High-quality health systems in the Sustainable Development Goals era: Time for a revolution. *The Lancet Global Health*, 6(11), e1196–e1252. [https://doi.org/10.1016/S2214-109X\(18\)30386-3](https://doi.org/10.1016/S2214-109X(18)30386-3)

Recommendations to Improve Care-Seeking Pathway

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“There is no paediatrician, we have only two general doctors in this PHC. They see all patients.”

– Auxiliary Nurse Midwife, 2019

“In 30-bedded SNCU there are 60 patients and everyday there will be 30 or more referred there. There is no question of giving quality, it is a question of survival only.”

– Paediatric doctor, 2019

“If PHC get properly functional, then there is no need for informal providers. The public will visit the nearest PHC located near them. The reason behind active informal providers in the area is nonavailability of doctors”

– Block Programme Manager, 2019

“Majority of district hospitals don't have a paediatric ward to take care of pneumonia, diarrhoea, and other childhood illnesses. There is a long way to go to achieve the paediatric outpatient and inpatient services at district-level hospitals.”

– Technical Support Unit official, 2019

RECOMMENDATION 1

Strengthen infrastructure and services—identification, management, and referral—at lower-level health facilities to reduce the caseload at District Hospitals and Medical Colleges.

EVIDENCE

1. District Hospitals and Medical Colleges see a disproportionately large number of sick children. There is a lack of functioning Newborn Stabilization Units (NBSUs), specialized paediatric care, 24/7 availability of paediatricians, and case monitoring. Also, only one ambulance is allocated to a Primary Health Centre (PHC) or a Community Health Centre (CHC).
 - Lack of appropriate primary care and initial case management at subcentres and PHCs often increases the total cost of care and time spent at CHCs and District Hospitals to receive appropriate care for patients and caregivers. Quality of experience at these higher-level facilities is often dismal due to lack of functional amenities.
2. Of all the surveyed facilities, 47% in Uttar Pradesh and 18% in Bihar had oral rehydration therapy corners. Only 69% of the surveyed facilities had a functioning ambulance service.
3. Health facilities are seeing an increase in the number of urban and rural poor utilising the benefits of the Ayushman Bharat cashless insurance scheme, which has led to an increase in the facilities' revenue.
 - Patient retention and satisfaction could be increased if these earnings are used to improve service provision, such as installing air conditioners in CHC wards.

ACTION

1. **Strengthen the capacity of health facility providers to improve case management** at subcentres, PHCs, and First Referral Units through greater investment in training, supervision, and accelerating setting up Health and Wellness clinics as the first point of service provision.
 - **Ensure that CHCs and District Hospitals are adequately equipped** with oral rehydration corners, clean toilets, food, and other basic amenities for patients and caregivers.
 - **Ensure adherence to surveillance, monitoring, and documentation mechanisms** to track cases of pneumonia and diarrhoea, Outpatient Department admissions, emergency cases, and real-time data on referrals at each facility, including CHCs and PHCs.
2. **Strengthen the National Ambulance Service** by increasing the number of ambulances—via a trust or a public-private partnership—to service the population area and improve services at PHCs and CHCs.
3. **Use innovative funding sources to motivate health facilities to strengthen facility infrastructure and create transparent** internal processes to prioritise where earnings can be allocated. Use Rogi Kalyan Samiti (Patient Welfare Committees) platforms to discuss utilisation and prioritisation of funds.



RECOMMENDATION 2

Promote rational deployment of the health workforce at all levels of public health facilities.

EVIDENCE

1. Acute staffing shortages at all government health facilities—District Hospitals, CHCs, and PHCs—especially of paediatricians, general physicians, and support staff.
 - Resistance to serving in a rural public health facility.
 - National Health Mission (NHM) human resource guidelines are not adhered to at PHCs. For example, a PHC should have a pharmacist, a staff nurse, and an ANM (auxiliary nurse midwife), but often this is not seen in practice.
2. Low motivation for state government doctors to go into rural regions due to lack of facilities, including accommodations, transportation, and increased risk due to violent behaviour by patients' caregivers.
 - Lack of choice in selecting home districts, absenteeism, and engaging in private practice once posted to a lower health facility compromises the quality of services at their base health facilities.
3. According to frontline health workers, doctors are typically on call only a few hours a day and do not stay on after Outpatient Department hours. Consequently, after regular hours the facility is often managed by support staff.

ACTION

1. **Ensure timely recruitment of healthcare providers** to fill vacancies at Special Newborn Care Units, PHCs and CHCs, and increase adherence to NHM guidelines through financial and nonfinancial incentives.
 - Include contract private providers.
 - Reduce reliance on unqualified rural medical providers and reduce patient burden at higher-level facilities.
2. **Improve the living conditions for facility staff** to increase the time spent by the staff at the facility, including on-site security, accommodations, transportation, and food availability.
3. **Create a safe, secure, and supportive working environment for female nursing staff and doctors** to facilitate them spending day and night shifts at the facility and help position primary health facilities as round-the-clock health centres.

“Even if we do not give medicines to the patient but if we deal with them with compassion, they get very satisfied.”

– Staff nurse, 2019

“We have a subcentre in the village but nobody sits there, it is all in ruins, despite the fact that it is the centre for 8 villages.”

– Accredited Social Health Activist, 2019

“People at CHC are also under fear of being beaten in case they commit some mistake. They are ready to refer the case in the first place, as they do not want to take the risk.”

– Medical Officer in charge, 2019



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“The reality is that there are no doctors available here, only nurses are there. Nurses do not have much knowledge. They come here to us for learning also. I mean they cannot learn it in one month, it took me years to learn all these components of care.”

– Head Nurse, District Hospital, 2019

“In terms of the new supply chain, there is a lot of confusion there...for example, we need a particular type of syringe pump that is recommended, but the state procures some other thing and then there is a mismatch.”

– Government doctor, 2019

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RECOMMENDATION 3

Improve knowledge, skills, and adherence to protocols of the health workforce.

EVIDENCE

1. Resistance from staff to attend long trainings, especially when the trainings are in other districts:
 - Sending doctors to long trainings compromises service provision, especially if there is just one doctor at the facility.
2. Across facilities surveyed within REACH, only 14% of paediatricians and none of the staff nurses or paediatric nurses had been trained on Facility-Based Integrated Management of Neonatal and Childhood Illness (F-IMNCI) or Integrated Management of Neonatal and Childhood Illness (IMNCI).
3. Refresher trainings for staff nurses and doctors are not undertaken frequently:
 - When training is provided, too much information is given, which makes it hard to retain and put into practice.
 - Staff feedback is usually not solicited after trainings.


ACTION

1. **Strengthen linkages between facilities (District Hospitals, CHCs, and PHCs) and within facilities for cross-learning:**
 - Set up clear and open communication channels and feedback loops between doctors and nurses.
 - Adapt District Hospitals' National Integrated Guidelines on Paediatric Care for CHCs and PHCs.
2. **Set up in-house skill labs at District Hospitals for trainings** and identify strategies for effective “multi-skilling” of staff nurses and doctors, including communicating with patients, screening, identifying warning signs, diagnoses, and management.
3. **Increase capacity of existing and new Medical Officers and staff nurses** on child outpatient and inpatient management:
 - Monitor adherence of Medical Officers and staff nurses to existing case management Standard Operating Procedures (SOPs) and guidelines.
4. **Create and implement curricula with clinical, classroom, and patient-handling sessions:**
 - Strengthen mentorship between medical professionals by identifying, for example, senior residents or paediatricians from nearby Medical Colleges or retired medical faculty who can provide periodic training and supervisory support to doctors at PHCs and CHCs.
 - Identify nurses to serve as master trainers for the nursing staff.
 - Strengthen feedback systems to inform training sessions.

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A woman wearing a vibrant pink sari with gold floral patterns is holding a newborn baby wrapped in a red blanket. She is looking down at the baby with a gentle expression. The background is a plain, light-colored wall.

Addressing Gaps to Improve Neonatal Health and Survival in Uttar Pradesh and Bihar

A CALL TO ACTION

KEY TAKEAWAYS

1. Assure high-quality, facility-based infrastructure for newborn care, according to government guidelines.
2. Strengthen human resources for newborn care.
3. Revamp, rationalise, and assure the quality of home-based newborn care.

The neonatal period is the most vulnerable time for a child, as children face the highest risk of dying in their first month of life. India has the highest number of neonatal mortalities in the world, accounting for a quarter of global neonatal deaths. The decline in neonatal mortality over the past decades has been much slower compared with child mortality. Infections (including sepsis, pneumonia, diarrhoea, and tetanus), prematurity, and birth asphyxia are the major causes of death in the neonatal period. Appropriate continuum of care spanning antenatal, intrapartum, and postnatal care is essential. The rise in institutional deliveries must be complemented with home-based newborn care to achieve a significant reduction in postpartum and neonatal mortality and morbidity.

The **Research and Evaluation for Action in Child Health (REACH)** project, supported by the Bill & Melinda Gates Foundation, gained insights from stakeholders to prioritise actionable recommendations for improving neonatal health and survival.

To frame actionable recommendations, the REACH project carried out a literature review and facilitated a “Pause and Reflect” qualitative workshop to gain insights from key stakeholders such as neonatal health experts from the fields of practice and academia and government officials at the national and subnational levels, including those from the Uttar Pradesh and Bihar Technical Support Units (TSUs).

Recommendations to Improve Neonatal Health and Survival

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“Because of distance many don’t come [and] they get treatment there only, it’s a very interior area so they avoid coming here.”

– Auxiliary Nurse Midwife, 2019

“We have shortage of ventilators... when children come to us then the only answer we have is that we are short of ventilators.”

– Staff nurse at government facility, 2019

“A lot of patients accumulate in the room, mothers feed in the feeding room, which is 8 bedded, there are 30 children over there. There is lot of chaos and too hot... they take the child and rush outside.”

– Staff nurse at government facility, 2019

RECOMMENDATION 1

Assure high-quality, facility-based infrastructure and services for newborn care, according to government guidelines.

EVIDENCE

- Newborn Care Corners (NBCCs) and Newborn Stabilization Units (NBSUs), where present, often function suboptimally because of gaps in the quality and quantity of human resources, infrastructure, equipment, and supplies. Women seeking neonatal care at public facilities often bypass Primary Health Centres (PHCs) and Community Health Centres (CHCs) in favour of District Hospitals and Medical Colleges. This can
 - cause delays in accessing treatment,
 - create travel challenges,
 - compromise the quality of care (due to overcrowding) at District Hospitals and Medical Colleges, and
 - result in not seeking care at all.
- Beds, radiant warmers, and other infrastructure at Special Newborn Care Units (SNCUs) in District Hospitals and Medical Colleges usually comply with National Health Mission guidelines but fall well short of demand.
- Caregivers do not have adequate provisions—such as shelter, food, and clean toilets—to stay with the child when admitted to the facility.

ACTION

- **Improve quality and uptake of services at lower-level facilities by:**
 - Scaling up and strengthening NBSUs, starting with basic parameters of human resources, equipment, and infrastructure.
 - Instituting certification, such as LaQshya (Labor Room Quality Initiative), to incentivise upkeep of quality of care.
- **Rationalise SNCU admissions and ensure quality service provision by:**
 - Strengthening intrapartum care through directives for doctors and nurses to adhere to prescribed labour room protocol. This will reduce SNCU admissions based on causes that can be managed in the labour room.
 - Admitting only appropriate cases to SNCUs and discharging when treatment is complete.
 - Ensuring that babies referred to the SNCU from the labour room are admitted appropriately and not redirected to private providers by touts.
- **Ensure caregivers accompanying the child to the facility are provided with safe and hygienic shelter, food, water, and amenities like clean toilets, especially those who stay with the child when admitted.**



RECOMMENDATION 2

Strengthen human resources for newborn care.

EVIDENCE

- An acute shortage of human resources, especially doctors at PHCs and CHCs.
- General resistance of providers to serve at remote locations.
- Unavailability of doctors after Outpatient Department hours, leaving support staff to manage the facility after hours.
- Community members often rely on unqualified Rural Medical Practitioners (RMPs) for newborn care.
- Nurses are often not adequately trained to manage neonatal illness, partly because it is
 - difficult for them to leave the facility and attend multiday trainings, and
 - a challenge to subsequently retain the information and put it into practice.

“This SNCU needs at least 20 nurses for 24 hours, but there is no one. There is no lab here for SNCU... We are just guessing and treating the patient.”

– Doctor at government facility, 2019

ACTION

- **Strengthen managerial capacities of existing doctors and technical capacities of doctors and nurses.** This will reduce reliance on RMPs and compensate for human resource gaps until addressed:
 - Foster leadership skills at supervisory levels, especially for doctors, to empower, capacitate, and optimise existing staff.
 - Provide incentives and encourage doctors to spend adequate time mentoring nurses.
 - Strengthen the National Health Mission through monitoring and mentoring via a memorandum of understanding between Medical Colleges and local administrations. Provide medical residents from community medicine departments with opportunities for hands-on practice and field research.
 - Train doctors and nurses at subdistrict facilities at local Medical Colleges on intrapartum and postpartum care, case management and appropriate referral of newborns, and provide supportive supervision. Track performance using Objective Structured Clinical Examinations (OSCE) and drills.
 - Engage an external mentoring team for facilities and human resources—both clinical and administrative staff—that need to be strengthened.
 - Sustain mentoring activities for nurses by creating a district mentoring team comprising two nurses—including high performers from the block and district levels—to undertake mentoring activities in their catchment area.



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“People at CHC are also under fear of being beaten in case they commit some mistake... they do not want to take the responsibilities [and] prefer referring to higher facilities.”

– Staff nurse, 2019

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RECOMMENDATION 3

Revise Home-Based Newborn Care (HBNC) programme to optimise resources and prioritise care to the most vulnerable.

EVIDENCE

- Home-based newborn care is delivered inefficiently due to:
 - Long delays between the time an ASHA (accredited social health activist) joined service and when she is trained in home-based newborn care.
 - Trained ASHAs often forgetting over time the components of the Home-Based Newborn Care protocol.
 - Gaps existing in both completing the number of mandated visits and following the Home-Based Newborn Care protocol during each visit.
 - ASHA supervisors not interacting with their direct reports during routine visits.

ACTION

- **Track every pregnancy and newborn**, especially home deliveries, through means like capacity building of frontline health workers; coordination between them and health facilities; and strengthening Health Management Information Systems (HMIS).
- **Prioritise home-based newborn care visits** for vulnerable children by ASHAs, specifically preterm births, low birth weight newborns, and SNCU discharges.
- **Evaluate the Home-Based Newborn Care programme** to assess output of time and money invested. Revise policy to optimise resources.

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