

# Improving Household Decision-Making for the Management of Pediatric Pneumonia in Uttar Pradesh & Bihar

## Formative Research Findings Executive Summary



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**Background:**

In 2005, 2.3 million deaths were reported in children less than 5 years of age, and between ages of 1 month to 5 years, half of them were due to pneumonia or diarrhea, attributable to delayed recognition of illness by families, delayed and poor access to qualified health care in a setting which has untested home and traditional remedies for such illnesses and faith in incompetent and unqualified rural medical practitioners in a background of high prevalence of under nutrition, overcrowding, exposure to ambient air pollutants as a result of use of biomass fuel for cooking and second hand smoke and low rates of immunization etc.

**Hypothesis:** Community empowerment for prompt recognition of childhood pneumonia, understanding its severity and vulnerability of their child to adverse outcome due to delayed qualified care seeking is possible by development of appropriate messages by in-depth formative analysis of community constraints in real life and possibly diverse settings.

**Goal:** To create communications materials to improve household decision making when confronted by lower respiratory illness in children in northern India.

**Objective:** One of the objectives of this project was to conduct formative research to assess community perceptions about symptoms of pneumonia, care seeking behaviour and risk vulnerability due to it. This report presents the findings of formative research of this Objective.

**Settings:** Since there are multiple dialects in Uttar Pradesh and Bihar, this formative research work was done in dialect specific rural village settings as well as in the corresponding Primary Health Centre (PHC) and Community Health Centre (CHC) of 7 districts of Uttar Pradesh and Bihar. The project districts and the dialects spoken in each district were Lucknow (Awadhi), Gorakhpur (Bhojपुरी), Mahoba (Bundelkhandi), Agra (Braj) and Meerut (Khari Boli) in Uttar Pradesh and Gaya (Maghai) and Darbhanga (Maithali) in Bihar.

**Methods:** Key Informant interviews, semi-structured interviews and focus group discussions were used to collect information. Interview/discussion guides were prepared in English and Hindi. Case studies that were collected as a part of another objective of this project were used to create vignettes. These vignettes were used in interviews and focus group discussions probing decision making and health care seeking behavior. Real life video clippings on a range of mild to severe ARI in children under 5 years were shot. Three of these video clippings were used in focus group discussions (n=42) with stakeholders across 7 districts to ascertain what signs were recognized and how serious they were considered. All data collection guides were designed to collect information on taxonomy of terms used for childhood pneumonia and pneumonia like presentations, perceptions of disease

severity, factors influencing health care seeking and choice of health care provider. Attempt was made to elicit responses to various case scenarios and collect information on home remedies and self-medication. Data was transcribed and translated into English. Codebook was developed for coding and data interpretation. Themes were analyzed under each of the following four domains (a) symptom recognition (b) where and when to seek treatment (c) how to approach a care provider and negotiate for quality of care (d) risk vulnerability perception. These emerging themes gave insight to the concepts for message development.

**Findings:** 43 Key informant interviews, 42 Semi-structured interviews and 42 Focus group discussions were conducted in seven districts of Uttar Pradesh and Bihar. We recruited 303 caregivers and 75 care providers between October 2013 - January 2014. Among these 215/303 (70.9 %) caregivers and 58/75 (77.3%) care providers were from Uttar Pradesh and the rest were from Bihar. The caregivers comprised of younger and older caregivers and fathers. The care providers comprised of Community Health Worker (CHW) and Village Based Rural Medical Practitioner (RMP). Baseline characteristics of the caregivers showed that 91.7% caregivers followed Hindu religion while 7.9% followed Muslim religion. About 35.97 % caregivers identified themselves as belonging to Other Backward Class (OBC) and almost a similar percentage (35.31%) identified themselves as belonging to Scheduled Caste (SC). 23.10% belonged to General Category while the rest belonged to Scheduled Tribe (ST). 53.80% belonged to single/nuclear family while 46.20% belonged to joint family. 56.11 % respondents had family size of 6-10 members. Almost one-third (31.35 %) caregivers were illiterate and 72.61 % caregivers were housewives. Information was collected from the study participants on the availability of means of communication in their household like mobile, newspaper, television without satellite network, television with satellite network, radio. Mobile was the most popular source of information among the caregivers followed by information obtained from other persons like neighbors/relatives in community. Radio was least popular.

Sixty-seven CHWs participated in this study. Among these 77.61% (52/67) were from U.P. while 22.38% (15/67) were from Bihar. Sixty CHW`s participated in FGD`s while seven were a part of key informant interviews. Out of the 60 CHWs who participated in focus group discussion, 95% (57/60) were Hindus and 48.94 % (23/47) belonged to general category. 53.33% (32/60) CHW`s belonged to nuclear family and 51.67% (31/60) had a family size of 0-5 members. Almost half 45% (27/60) of the CHWs who participated in discussion were educated up to intermediate level. Eight RMP`s were included for the interview. The youngest RMP was 33 years while the oldest one was 65 years. RMP practicing in Gaya was most experienced with 35 years of practice. The qualification

of only 3 RMPs were known while the qualifications of rest of them were unknown. Qualified RMPs identified themselves as Bachelor of Ayurvedic Medicine and Surgery (B.A.M.S.).

**Domain 1: Symptom Recognition:** It was found that caregivers universally knew the term ‘pneumonia’ but did not know what the term “*pneumonia*” stands for & the risks associated with it. Fast breathing as a symptom of pneumonia was not recognized universally. The caregivers recognized chest in-drawing and fast breathing **only** when it was accompanied by chest in-drawing. They were unable to appreciate signs of severe pneumonia like altered sensorium or audible sounds like grunting and groaning when it appeared in our video clippings. The caregivers had no concept of viewing the chest to observe respiratory rate. Interestingly, fever in isolation was not considered as a symptom of respiratory illness. The caregivers missed the early stage of pneumonia when only fast breathing was present. It led to delayed disease recognition.

**Theme for Message Development (Domain 1)**

Caregivers should be made aware that Fast Breathing is an early symptom and Chest in drawing is a relatively late symptom of pneumonia. Chest exposure for thorough inspection should be done at home in children with cough/cold.

**Domain 2: Where and When to Seek Health Care:** Caregivers/providers choose health care facilities according to perceived severity of illness. There is an informal triage at community level. The caregivers chose either to `wait & watch` or visit traditional healer or visit a RMP for a child perceived as “*less sick*”. When the child was perceived to be “*more sick*” caregivers preferred to visit a Block Based Private Doctor (BBD) more than RMP. The BBD or a Private Hospital at the main block was preferred more for the child perceived to be “*very sick child*”. The Govt. Hospital was least preferred for a child in similar condition because of the distrust of the community in the public health system.

**Theme for Message Development (Domain 2)**

Early care seeking should be promoted. Faith of the community in Government Health System needs to be strengthened. Caregivers must be made aware that care seeking from RMP for pneumonia leads to delay which in turn can lead to prolonged illness and increased cost of treatment. They must also be taught to closely look for fast breathing and chest in drawing and danger signs in their sick child so that care seeking can be sought as early as possible.

**Domain 3: How to Approach a Care Provider & Recognize for Quality of Care:** Caregivers were not concerned about the qualifications of a doctor as long as s/he had a good reputation in the community. There was no concept of correct quality of care and perhaps the community was not empowered/educated to recognize quality of care. They chose the RMP who was not usually qualified. BBD was mostly qualified but such qualified doctors charge five times more fees than RMP. BBD's did not dispense medicines like the RMP but prescribed medicines and investigations. RMP was available 24/7 and mothers would feel free to visit them even unaccompanied without much decision making. There was no concept of “*course of treatment*” among caregivers. They were told about feeding and diet changes during sickness. Community felt satisfied when the provider reinforced the belief that pneumonia is caused by “*cold*”. Caregivers were not advised to monitor the course of pneumonia. Doctors did not tell them about: (a) how to look for improvement or deterioration (b) how long to wait while taking prescribed treatment & (c) where to go when condition worsens

**Theme for Message Development in (Domain 3)**

Caregivers must be taught to ask the doctor about visible symptoms of improvement and for how long to wait and where to go when the disease worsens.

**Domain 4: Risk Vulnerability Perception:** Caregivers were not able to report all WHO-IMNCI Danger Signs. Only few respondents self-reported ‘refusal to feed’ and excessive crying, lethargy and unconsciousness/seizures. Additional symptoms like fever, cold, coughing were reported as Danger Signs much more than WHO-IMNCI Danger Signs. Caregivers did not know that fever alone is not an indicative of disease progression or improvement. They also were unaware that maternal cough/cold can be self-limiting however a child with similar symptoms can progress to fatal pneumonia. In addition, caregivers were unaware that children with cough/cold can have different outcomes in same child or in different children.

**Theme for Message Development (Domain 4)**

Some children with ‘cough/common cold’ can progress to life-threatening pneumonia. Most of them have self-limiting disease. Therefore, it was important to watch for early signs of pneumonia.