TITLE: CARETAKER CLASSIFICATIONS AND UGANDA MPLICATION FOR PROMPT AN APPROPRIATE MANAGEMENT OF PNEUMONIA: THE CASE OF BUSHENYI DISTRICT IN UGANDA

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Abstract: Most caretakers in Uganda cannot distinguish pneumonia that is part of the wider ARI complex (Acute Respiratory Infections). Although pneumonia is the 2nd leading cause of mortality for the under five children second to malaria, it has received relatively less attention compared to malaria, An intervention study to enhance caretaker behaviour in the management of pneumonia was conceived after this realisation. In this paper we share key findings of the formative study conducted to prepare for the intervention.

Objective of the study: To identify caretakers' understanding of pneumonia and how this influences care seeking.

Design of the Study: This was a cross sectional study that involved a household survey, key informant interviews and focus group discussions.

Setting: The study was conducted in two sub-counties in Bushenyi district (Western Uganda). The population of study included caretakers of under five, policy makers, district officials, local health providers and millet extractors.

Results of the Study: Caretakers did not easily suspect pneumonia when their children presented difficult breathing, fast breathing and chest in drawing. Caretakers under reported: pneumonia by 38.5%, malaria by 22.5% and over reported common cold by -24.1%. Qualitative results show that there were some caretakers who associated fast breathing with a folk illness locally referred to as oburo (millet disease). It is believed children with oburo (millet) disease will die if "millet extraction" by a folk illness expert locally referred to as "a millet extractor" is not performed. Some caretakers often manage pneumonia at home by trying options that were determined by the kind of perceptions they had about the disease. Caretaker behaviour is characterised by delayed care seeking and seeking care from informal sources. Those who suspected 'oburo' go for 'millet extraction'. Some caretakers sneak out of health facilities for millet extraction if they suspect the disease is "oburo". This is more likely when the sickness persists.

Conclusions: Caretaker practices in the management of pneumonia and malaria are closely linked to caretakers' inability to classify pneumonia from other illnesses. The practice of 'millet extraction' is a result of lack of knowledge. Millet extraction does not only affect appropriate and prompt treatment but also exposes the child to non-sterile procedure. This calls for the need for a strong health education component to empower caretakers about proper diagnosis and subsequent management of pneumonia.



INTRODUCTION AND BACKGROUND



- This study was funded by USAID and coordinated by the Joint Research Initiative on Improving the Use of Medicines (JRIUM), Applied Research on Child Health (ARCH) project, Boston University and Makerere Institute of Social Research, Makerere University, Kampala.
- Acute Respiratory Infections (ARI) are major cause of child morbidity and deaths in developing countries. In Uganda, ARIs are second to malaria.
- The problem of ARIs has persisted majorly because of the caretakers inability to classify the various categories of ARIs. The most fundamental being pneumonia, which if not detected early can be fatal.
- This inability has led to poor management of the disease including delayed care seeking, unnecessary use of antibiotics, inappropriate treatment and application of faulty folk remedies such as 'millet extraction'.
- It was against this background that an intervention study was conceived to educate caretakers, community drug providers and traditional providers to easily classify pneumonia from other forms of ARIs and take appropriate and prompt action.
- As preparation for the interventions, a formative study was conducted.





OBJECTIVES

Specific Objectives

- 1. To document policy context upon which the intervention could be built
- 2. To establish the current level of caretakers ability to classify pneumonia from other ARIs and malaria
- 3. To establish the amount of time taken before outside treatment is taken
- 4. To establish the common care seeking patterns for ARIs



METHODOLOGY

- 1. A cross sectional survey of 478 households
- 2. Key informant interviews were conducted with policy makers, district officials, local health workers, millet extractors;
- 3. Focus group discussions were held with caretakers of children under five
- 4. In terms of data analysis caretakers were asked to mention the symptoms the child presented. These were classified into 3 categories: pneumonia, malaria and common cold. This was done using the clinical presumptive criteria. For pneumonia we included all the children who were said to have fast breathing, difficulty breathing, chest in drawing or lethargic. For malaria included all those children with a history of fever and convulsions. Common cold included children with blocked nose, sneezing and hoarse voice.
- 5. Respiratory rate counts were compared with the symptoms reported by caretakers.



Results1-the policy context



- In terms of policy, pneumonia has not been given specific focus compared to other childhood illnesses like malaria.
- Uganda has embraced the home based treatment strategy for malaria whereby home based presumptive treatment for all fevers with unit dose of pre-packs(*homapaks*) of anti malarial drugs for under five is in place. caretakers are expected to treat all children presenting fevers with anti malarials within 24 hrs of onset. caretakers are cautioned to seek professional advice in case of convulsions or in ability to eat or drink. They are not cautioned about fast breathing or chest in drawing.
- The home based management of malaria may have negative effects on pneumonia management since in both situations fevers are present. Caretakers are likely to treat pneumonia as malaria.
- Treatment of pneumonia at the community level by lay providers still remains illegal although a wide range of anti biotics are available in the communities and are being used to treat various ARIs including pneumonia.



Results (household survey)



 Table 1: The gap between clinical assessment based on reported symptoms) and what the caretaker suspected to be the illness

Illness	Clinical assessment	suspected illness by the caretaker	Knowledge gap
Pneumoni a	38.9%	0.4%	38.5%
Malaria	46.9%	27.4%	22.5%
Common cold	29.5%	53.6%	-24.1%

The caretaker's problems in identifying childhood illnesses

The results in table 1 show that mother's classification of illness differed significantly from the clinical definitions.

- According to the clinical assessment:
 - 38.9% had pneumonia, however only 0.4% of the caretakers suspected pneumonia, hence a knowledge gap of 38.5% (under reported).
 - 46.9% had malaria and only 27.4% suspected malaria indicating a gap of 22.5% (under reported).
 - 29.5% had common cold and 53.6% of the caretakers suspected common cold indicating a gap of -24.1% (over reported).
- This is an indication that caretakers can not detect typical pneumonia, malaria and common cold symptoms.

- Considerably there is confusion due to the overlap between the symptoms of pneumonia, malaria and common cold. This confusion affects the promptness and the kind of action taken in terms of management.
- Over reporting common cold in place of malaria and pneumonia may mean that simple cold remedies. This is dangerous in case a child has pneumonia or malaria.
- The gap between clinical assessment and what caretakers suspected in case of pneumonia is dangerously low and may lead to death.

Symptoms reported by the mother did not match with respiratory rates counts

The children who were sick at the time of the survey were assessed for fast breathing using respiratory rate counts: Only 30% of the cases whose caretakers reported symptoms of pneumonia' were found with fast breathing. 23.9% of the children whose caretakers had reported no symptoms of pneumonia were assessed and found to have fast breathing.

 There is a strong overlap of pneumonia and malaria which should not be underestimated.

- The cases that had been classified as malaria on the basis of reported fever and convulsions were assessed for pneumonia using respiratory rates counts and 26% were found to have fast breathing.
- This is an indication that caretakers can not easily detect the typical pneumonia symptoms. They can easily detect fever (hot body).

Care seeking behavior and practices

- Asked about what worried them most caretakers (47.2%) mentioned cough followed by fever/hot body (44.9%).
- A few mentioned difficulty breathing (13.4%), fast breathing (7.1%), chest in drawing (.2%), refusal to drink (.2%) and refusal to eat 1(.2%).
- 43% first tried a home remedy. These included: herbal medicine(22.3%), western medicine (18.3%) and tepid sponging (3.4%).
- o 43% went to the provider
- 7.8% waited to see the outcome

- The drugs given at home were painkillers (65.1%), antibiotics, mostly septrin (24.1%) anti malarials (12.0%)
- Dosage forms included tablets (77.9%), syrups (14.7%) and capsules were the least given (2.9%).
- sources of drugs were the community based informal clinics (59.4%), ordinary provision shops (18.8%), 12.8% drug shops and the government health facilities (7.5%).



Results-time taken before care seeking



23.2% of the caretakers sought advice outside home the very day they realized the child was sick.
43.2% took 1-2 days before seeking advice outside home.
27.5% took 2-4 days
Only 5.8% took more than 4 days before they sought advice outside home.

□The reasons advanced by caretakers for not seeking advice immediately included; thought the child would get better (42.3%), gave drugs at home first (26.9%).

- The results indicate that a big proportion of the caretakers did seek treatment promptly.
- The habit of giving drugs and herbs at home delays promptly care seeking

Local perceptions-'oburo'(millet) extraction

A child with fast breathing, difficult breathing, chest in drawing are interpreted as suffering from *oburo(millet)* disease. The recommended therapy is to cut the child's chest to remove the millet like stuff perceived to be the cause of the breathing problems.

- Caretakers were not precise nor consistent about the difference between pneumonia and *oburo*. Most rely on the local experts for such diagnosis.
- A few maintained that a child with oburo is heavier than a child with pneumonia and the heart beat is different.
- Caretakers are also likely to suspect oburo, if they try western medicine and it is not effective.

- facility health workers, local drug and 'millet' extractors providers confirmed the existence of 'oburo' (millet) extraction. All they confirmed that sometimes caretakers smuggle children from hospital wards for the extraction.
- According to millet extractors children smuggled from the hospital become better after extraction.
- Millet extractors are highly respected by the caretakers.
- Health workers reported that the extraction delays prompt treatment and causes over bleeding.

Conclusions and recommendations

The study has revealed that caretakers can not easily distinguish a child with pneumonia from other ailments such as malaria and common cold

- Even when a child presents fast breathing and difficult breathing the mother is not worried compared to cough and fever
- Caretakers try home remedies including herbs and medicines kept at home
- It is not known whether the medicines kept at home are in good condition and are appropriately used.
- Caretakers are already using antibiotics to treat ARI and malaria. Yet the policy is silent about community based approach to pneumonia.

- Caretaker understanding of the distinction between pneumonia and other childhood illnesses is crucial.
- The three share 'fever' as a symptom and that is what the caretakers easily recognise.
- fast breathing and chest in are not easily recognized. Neither are they perceived as dangerous.

Recommendations

- There need for a community dimension focusing empowering caretakers to detect pneumonia and take prompt action. Like malaria, there is need to reconsider community based distribution of the common antibiotics.
- There is need for a pragmatic solution to the perception about millet extraction. This will require serious community sensitization about signs of pneumonia.
- Improvement on the quality of care in health facilities would create a positive attitude towards their use.
- There an urgent need to introduce IMCI-which has been long over due. Through caretaker counseling, there is a possibility of increased empowerment of caretakers about pneumonia.