



# Household Integration Could Potentially Improve the Integrated Community Case Management Strategy for Childhood Illnesses

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## Abstract

Malaria, pneumonia and diarrhoea have together caused most childhood deaths particularly in resource poor underserved areas, though they are preventable and curable. The Integrated Community Case Management strategy building on previous child survival programmes has been adopted to improve access to treatment of children at risk of these diseases. Despite its gains in some areas however, the neglect of the role of households is a major constrain in achieving its full potentials. The integration of the households in the iCCM would importantly make family members responsive and responsible to healthcare decisions and provisions, if they are properly empowered. The effect of this would be the appropriate recognition and distinguishing of childhood illnesses at home, prompt and appropriate management at home, prompt and appropriate self-referral attitude as well as awareness and demand of appropriate services at formal and informal points of care. Furthermore, it will offer a source for generating and maintaining reliable data on childhood illness events.

**Keywords:** Household integration; Childhood illnesses; Malaria; Pneumonia; Diarrhoea; ICCM

## Introduction

Despite being preventable and curable, malaria, pneumonia and diarrhoea are responsible for three quarters of deaths in children under five years of age [1]. There are inequities in the management of these illnesses such that in sub-Saharan Africa, only 39%, 30% and 16% of children respectively receive correct treatments for diarrhoea and for suspected pneumonia and malaria [2,3]. In many rural communities, distance and poverty are some of the major factors that hinder sick children from making it to the nearest health facility in time to receive appropriate treatments. Despite the advent of correct treatments and preventive interventions [4], facility-based service delivery has not proven enough to control these diseases [5]. The Integrated Community Case Management of childhood illnesses (iCCM) strategy was therefore developed to accelerate management of the three prominent childhood killer diseases in developing countries [6-8]. The iCCM was built from previous child survival strategies, aiming at extending the treatment of childhood illnesses from health facilities into communities, thereby increasing access to and coverage of treatment [9]. Despite some successes demonstrated in some countries' pilot of the iCCM [7,8], there are still some constrains which have also

affected the implementation of the strategy in many developing and underdeveloped countries particularly in sub Saharan Africa [7]. One major factor is on how much the families or households have been involved in the iCCM, not just as caregivers but as care-providers [9]. In poor underdeveloped communities care givers or household members who are ignorant are still left at the mercy of patent drug dealers and community health workers who most times are only profit oriented rather than adhering to the prescribed protocols for childhood illness management. Furthermore, lack of reliable baseline data on childhood illness events is a major constrain in effectively implementing and evaluating the strategy. Getting households involved in the entire process by empowering household members with appropriate information and skills will help them in making appropriate decisions towards management of childhood diseases and in generating reliable data needed for effective evaluations, planning and policy.

## The Integrated Community Case Management (iCCM)

Improving access to treatment for the febrile child has been a priority in low income countries for a long time, with the strategies used evolving over time. The Integrated Management of

Childhood Illnesses (IMCI) was first initiated to combat childhood morbidity and mortality through improving health worker skills, strengthening the health system and improving family and community care practices. While IMCI was shown to improve health worker performance and quality of care [10], it did not achieve the expected impact on mortality mainly due to delayed care seeking [10]. To improve IMCI, the Community Case Management (CCM) for treatment of sick children at the community level and promotion of timely care seeking and referral to health facilities. However, due to symptomatic overlap of malaria, pneumonia and diarrhoea, the strategy did not yield expected results. The integrated community case management (iCCM) was therefore introduced to improve the CCM by training, supporting and providing community health workers (CHWs) to provide diagnostics and treatment of the three childhood killer diseases for families who find it difficult to access health facilities [10].

### The Gains of iCCM

Evidence suggests that the iCCM approach increases the number of children receiving appropriate care in hard-to-reach communities. Reports have shown a 35% reduction in deaths as a result of pneumonia and that high levels of iCCM coverage could result in a 70% reduction in pneumonia-related deaths in children under five [12]. A reduction in both case fatality for acute diarrhoea, and severe pneumonia among children due to iCCM implementation has been reported in Nepal [13] and Pakistan [14]. In Uganda [15], Mozambique [16] and Rwanda [17], iCCM became not only part of an upgrading of community services but also accessibility to prompt treatment increased significantly.

### The Constrains of iCCM

The most important constrain in the iCCM seems to be the neglect of the household in the strategy. There are observations where the CHWs do not strictly adhere to the iCCM protocols [18,19], or are readily available to deliver the services in the communities probably due to engagement with other things [21]. This reflects in the continued reliance of households on available or other convenient sources for the management of the illness of their children, particularly the community drug vendors [22]. These drug vendors are mostly profit oriented and do not necessarily adhere to recommended guidelines from management of childhood illnesses. And because most of these household members are not aware of the recommended guidelines, they tend to accept whatever they are offered at the drug shops without questions [23]. Secondly, the lack of reliable data collection on childhood illness events in rural poor endemic areas, make it difficult to evaluate the impact of the programme [24].

### Household Integration?

Proper integration of the household in the iCCM process is a major challenge. Part of the problem may be the often-ill-definition of home management of sick the child which passively removes

responsibility on the caregivers placing them at the disposal of community health workers [25]. Also, the perception of drug vendors or patent medicine sellers (PMDs) as first contacts of households in care-seeking tends to exclude the fact that the care sought outside the family begins in the home, especially in sub-Saharan Africa [26]. It is very difficult for the typical African mother to immediately take the sick child to any health worker or facility without first 'doing something' at home. Such that when a child visits a health facility, it is often as a result of failed attempts at home or elsewhere to alleviate the illness. This is the unspoken disposition coupled with poverty and ignorance that spurs a mother to run from an herbalist to a spiritual sanctuary, as has become popular in most parts of sub Saharan Africa today [9]. By the time they would have visited a health facility, the case has become worse. Something about this disposition to seek care first at the sight of a sick child calls for the integration of the family, of the household into the iCCM strategy.

### The Concept of Household and Health care

A household includes all the persons who occupy a housing unit. The concept of 'household' as used in economic, healthcare, and sociological models presents it as a basic unit of analysis; of people sharing something(s) in common. It is a setting where self-efficiency belief is a common pathway through which psychosocial influences affect health functions. As such, at the slightest bout of fever, the mother especially needs no permission to get uneasy and possibly would 'do something' to bring about a change. Of what, a family would do, most times going to the hospital is not usually the first. This is the strength of the self-efficiency belief that not only makes the family an indispensable factor in integrated health care, but also foists it as the constant in a child's life. The family or household should therefore be recognized as the unit where the first and immediate actions concerning childhood illnesses take place. Understanding and recognizing this fact will be the first step in the success of any strategy for the management and control of childhood illnesses.

### Household Integration for the improvement of iCCM

If the iCCM aims to empower communities for healthy-leadership action to improve child health, then evident lack of empowerment of the key decision-makers within households to play a key role, makes the service delivery sub-optimal. This is because the household's communities are the first places of care, at the outset of child illness. The members of the family feel immediately responsible and responsive towards providing care when a child becomes ill. That is the reason there are first aid boxes in family shelves, that is why relatives provide ideas, herbs and the likes; even when they are not appropriate. Promotion of key family practices and roles can aid in improving and sustaining iCCM goals. Giving families' additional specific training, beyond awareness and communication, can aid them to make informed decisions about

diagnosis, treatment and self-referral of sick children. This will not only foster right action at home, but also create correct expectations and demand for such at points of care including community drug shops [27]. Again, in cultures where illnesses are perceived to have some spiritual underlying causes; the care-seeking behaviour of households can be directed towards prompt and reliable care if they are appropriately informed and empowered [28]. Therefore, such cases as incorrect prescription, over and under dispensing, wrong diagnosis and sell of un-recommended or expired drugs would be prevented. Playing these critical roles under the supervision of CHWs will build more confidence of the households with the CHWs and prevent the desperate disposition that naturally draw them to depend on drug sellers and other unconventional sources who often sell and give inappropriate and incorrect prescriptions.

Furthermore, teaching household members on simple ways of recording childhood illness events would which can be periodically transcribed by CHWs and translated to appropriate authorities will be an added advantage. This is because it will provide a source of reliable data which is needed in evaluating and optimizing the programme.

### **Integrating the Household in the iCCM Strategy**

Household integration as a needed component to drive iCCM is viewed to dwell on four constructs; encouraging household proactive involvement in child health care-seeking and delivery, growing self-referral attitude in households, creating right action and correct expectations from health care acts and activities, and home based gathering/ maintenance of reliable data on childhood illness events. Integrating the household in the iCCM should simply involve educating and training household members on specific protocols of the iCCM. This training could involve selecting and training the head of household or any other household representative who will then translate the education and skills to other household members. By so doing, all household members, from the father and mother to the youngest knowledgeable children would have acquired the knowledge and skills to take prompt and appropriate decisions and actions in the event of any childhood illness at home. The education and training should focus on very simple ways to recognize and distinguish the signs and symptoms of childhood illnesses. For instance, as all fevers are not malaria or pneumonia; households should be educated and trained to correctly identify signs and symptoms of malaria in fever if it presents with rigour, unusual loss of appetite, stiff neck or bulging fontanelles; of pneumonia in fever when the child has difficulty in breathing; and see signs and symptoms in a child who presents with restlessness, irritability, drinks eagerly and thirsty with skin pinch going back slowly [27].

So identified, households should be educated to apply presumptive treatment with correct medicines, in right dosages and follow up the treatment, by taking note of any reaction subsequently for 24 to 48 hours. Such that if after 24 to 48 hours, they should

naturally know that a higher level of treatment is needed. This is the training in self-referral, seeing the need to having done the first essential. The reason for this is that in most poor resource areas, particularly in sub Saharan Africa, treatment of these illnesses still take place at homes or drug shops most times incorrectly [28]. Therefore, it is necessary to make the best out of the situation by making sure that the treatments at home are done correctly and that visits to drug shops are made with correct expectations and demands for them. Of course, at the referred facility, drug shop or hospital; the training of the household should be such that empowers them to also have correct expectations. So, at the facility, they will be able to report what they have done and know what they need and demand for it. As such, they would be able to demand for rapid diagnostic tests (RDTs), respiratory timers and thermometers use before prescription. And when those prescriptions are not the recommended ACTs, amoxicillin and zinc medicines, they would not compromise. This is to mitigate the possible instances of polypharmacy at the drug shops and inappropriate treatment at health facilities.

The process should not just end in training, but trained household should be provided with simple algorithms that serves as reference in managing the illnesses as they present. These algorithms should be pictorial, clearly indicating step by step action to be taken at every stage, how to monitor what has been done, and what to do if the illness persists. This serves as an image of reminder and balm to the nervousness that may attend at the event of childhood illness. It equally aids in clear detailing of action taken when at the preferred health facility. Furthermore, data is very crucial in planning, evaluation, policy making and implementation as well as effective deployment of interventions. Poor and unreliable data collection has also influenced ineffective and unsustainable realization of health goals. The household in this regard could be a source of gathering and storage of reliable data as everything that happens to the child revolves around them as they are the custodians of the most reliable information about child health. Therefore, household members could be trained on simple methods of data gathering by keeping records in note or logbooks. For instance, recording the time illness (symptoms) is noticed in the child, suspected illness, actions taken, drugs taken and dosages, time of recovery or otherwise, time of referral and possible death etc. Such data will be collated by trained CHWs from the family logbooks and transcribed to appropriate quarters for analysis. This data gathering and management system will improve policy planning and implementation, programme evaluation, equitable and sustained deployment of interventions as well as public health education.

### **Conclusion**

The Integrated Community Case Management of childhood illnesses extends the management of childhood diseases from health facilities into communities; by training, supporting and supervising

community health workers. All geared towards the reduction of childhood deaths from malaria, pneumonia and diarrhoea. Despite its many gains, more needs to be done to optimise and sustain the strategy. The first care providers need to be integrated, so that participation may get to empowerment; improving care-seeking, encouraging self-referral, knowing and getting appropriate treatment at appropriate places, consequently reducing childhood deaths from these diseases. Distilling the household as a basic unit of analysis in intervention models will help to improve the integrated community case management of childhood illnesses. It presents integrated care as shared commitment. It understands it as person-centred, coordinated and tailored to the needs and preferences of the individual and family. This is because it builds on interventions already shown to be cost-effective towards efficiency. Household integration as a critical component of the iCCM would strengthen care continuum and provide reliable and timely data of childhood illness events at the household level. Future for scale-up and sustainability of iCCM should consider the integration of the household as it has the potentials of improving the strategy for better and sustainable results.

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