

# Benefits of Integrating Malaria Case Management and iCCM

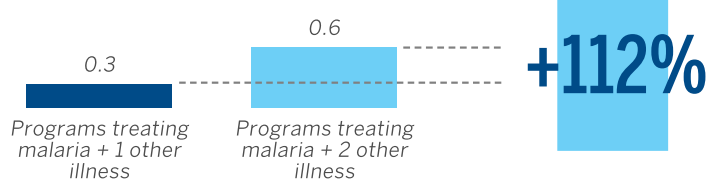
**Integrated community case management (iCCM)** is an equity-based strategy to increase access to effective case management for young children suffering from malaria, pneumonia, and diarrhea, especially in hard-to-reach areas and amongst vulnerable populations. Through iCCM, community healthcare workers (CHWs) are equipped, trained, supported, and supervised to deliver life-saving treatments to improve outcomes for children in communities that lack access to health facilities.

## Increased treatment rate

According to an analysis of iCCM programs, malaria treatment rate was higher among programs treating malaria + 2 other illnesses.

### Malaria Treatment Rate<sup>1</sup>

Per 1000 children/year (median)

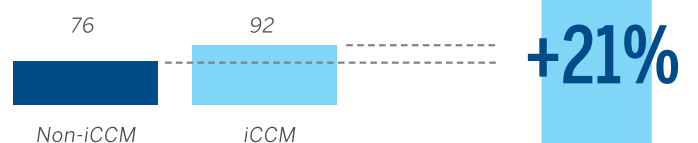


## Increased care seeking

A recent evaluation in Uganda found that districts with iCCM experienced increased care seeking for fever vs. districts without iCCM.

### Care seeking for fever<sup>2</sup>

Percentage



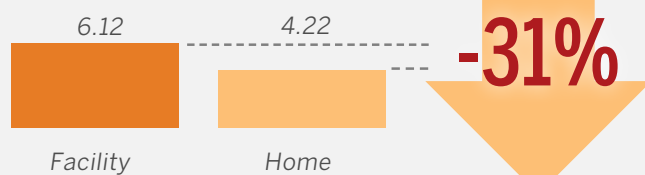
## Reduced likelihood of antimicrobial resistance

iCCM provided by trained, equipped, and supervised CHWs **can improve use of antimalarials and antibiotics for pneumonia** by increasing the proportion of cases appropriately treated, thereby reducing the likelihood of development of resistance in malaria parasites and bacteria.<sup>3</sup>

## Lowered cost of care

### Cost of Malaria Treatment<sup>6</sup>

\$ per case by care setting



## Reduced ACT wastage

A trial in Uganda, Burkina Faso, and Ghana found that **iCCM reduced overuse of antimalarial drugs (ACTs)**.<sup>4</sup>

If iCCM is implemented globally, up to **28 MILLION ACT COURSES** could be saved to treat confirmed cases<sup>5</sup>

## Increased care for co-morbidities

Young children often present with multiple conditions – in some cases, pneumonia and malaria are both present. Up to 16% of febrile children in Uganda and 9% of febrile children in Zambia were diagnosed with both diseases.<sup>7</sup>

Where iCCM is delivered, children receive care for both illnesses, improving fever clearance. And if one illness is not present, children can be treated for other likely causes, all while allowing parents to make a single stop.

Prepared by the iCCM Financing Task Team

# Research highlight: iCCM approach reduces ACT overuse in three countries



CHW in Kiryandongo district in Uganda demonstrating the results of an RDT for malaria. (Source: Malaria Consortium)

A multi-country, cluster, randomized trial conducted in Uganda, Burkina Faso, and Ghana found that iCCM of fever in children under 5 delivered by trained CHWs limited overuse of ACTs. In the three countries, 4,216 febrile children aged 4-59 months were enrolled in 2009-2010. In the control group, all febrile children received ACTs based on a presumptive diagnosis of malaria (based upon IMCI guidelines at the time); in the intervention group, CHWs assessed children with acute febrile illness for malaria by using RDTs and for pneumonia by using respiratory rate timers. In the intervention clusters, only 4.9% of RDT-negative children were prescribed an ACT. In the control clusters, ACTs were given to all children in all countries, leading to a potential unnecessary prescription of ACTs in 25.6%, 15.8%, and 12.1% of cases in Burkina Faso, Ghana, and Uganda, respectively. Inappropriate use of ACTs can lead to the development of antimicrobial resistance and is cause for concern.<sup>4</sup>

## In their own words: Benefits of CHWs providing integrated services



A CHW in consultation in Burundi (Source: SIAPS)

### Mothers:

“We are satisfied with the care by the CHWs... and we trust that CHWs are able to treat other illnesses such as intestinal worms, influenza, and diarrhea, provided they have previously received the appropriate training.”

### CHWs:

“We want to be trained in the management of other illnesses such as diarrhea... and acute respiratory infections. Mothers trust us, not only for malaria cases, but also for other illnesses that we are currently unable to help with, and that must be referred to the health centers.”<sup>8</sup>

# 28

countries in sub-Saharan Africa are implementing iCCM programs – and most countries plan further expansion<sup>9</sup>

Notes and sources: <sup>1</sup>UNICEF HQ, personal communication <sup>2</sup>Evaluation of iCCM in Uganda (2014), draft <sup>3</sup>Yeboah-Antwi K, et al. (2010) [Community Case Management of Fever Due to Malaria and Pneumonia in Children Under Five in Zambia: A Cluster Randomized Controlled Trial](#) <sup>4</sup>Mukanga D, et al. (2012) [Integrated Community Case Management of Fever in Children under Five Using Rapid Diagnostic Tests and Respiratory Rate Counting: A Multi-Country Cluster Randomized Trial](#) <sup>5</sup>Extrapolation from [World Malaria Report 2014](#): (conservative ACT savings of 7.2% applied to 392 million total ACT courses procured) <sup>6</sup>Chanda P, et al. (2011) [Relative costs and effectiveness of treating uncomplicated malaria in two rural districts in Zambia: implications for nationwide scale-up of home-based management](#) <sup>7</sup>Källander, K, et al. (2013) Managing acute febrile illness in the community: Implications for policy and practice in the era of rapid diagnostics tests for malaria. [poster] <sup>8</sup>Evaluation of malaria CCM program, Burundi, Final report: Evaluation of community case management of malaria in the pilot health districts of Gahombo, Gashoho, and Mabayi. 2014. Ministère De La Santé Publique Et De La Lutte Contre Le Sida, Burundi, SIAPS & Concern <sup>9</sup>Rasanathan K et al. (2014) [Community case management of childhood illness in sub-Saharan Africa – findings from a cross-sectional survey on policy and implementation](#)