

Effectiveness of community case management of malaria in Burkina Faso: Results form a natural experiment



Druetz T^{1,2}, Ridde V^{1,2}, Kouanda S³, Ly A³, Diabaté S¹, Haddad S^{1,2}

¹Centre de recherche du Centre hospitalier de l'Université de Montréal (Canada)

²School of Public Health, Université de Montréal (Canada)

³Institut de recherche en sciences de la santé, Ouagadougou (Burkina Faso)

Contact: thomas.druetz@umontreal.ca

BACKGROUND

Malaria is holo-endemic in Burkina Faso and causes the death of approximately 40 000 individuals every year. In November 2010, the health authorities introduced national-wide community case management of malaria. In every village a community health worker (CHW) was selected and trained to promptly administer treatments to febrile cases. In July 2011, a NGO-driven intervention removed user fees for children in health centers of Kaya district.

OBJECTIVE OF THE STUDY

The objective of the study is to evaluate – under real-life conditions of implementation – the program's effectiveness in increasing the uptake of CHWs' services.

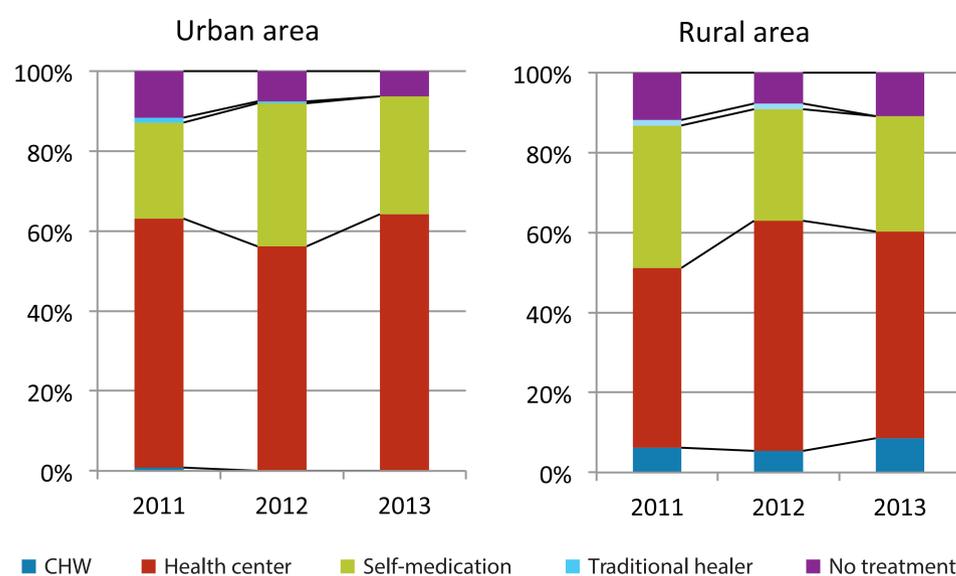
METHODS

The study area is located near the city of Kaya. In 2011, we constituted a panel of 2000 households randomly selected from the population living within a 15-kilometer radius of Kaya. The sampling was stratified by the setting (rural vs. urban). Each household was surveyed once a year during the season of high-transmission of malaria (August 2011, 2012 & 2013). Health-seeking practices of sick children who had recently been sick were documented.

RESULTS

The uptake of CHWs' services by sick children is null in urban areas and low in rural areas (graph 1).

Graph 1: First action for sick children under 5 years of age



Three years after the program being introduced, 67% (in urban areas) and 23% (in rural areas) of the caregivers did not know who the CHW was. A large proportion (28% and 51%, respectively) of caregivers acknowledged their preference for the health center, where healthcare are free of charge (Table 1).

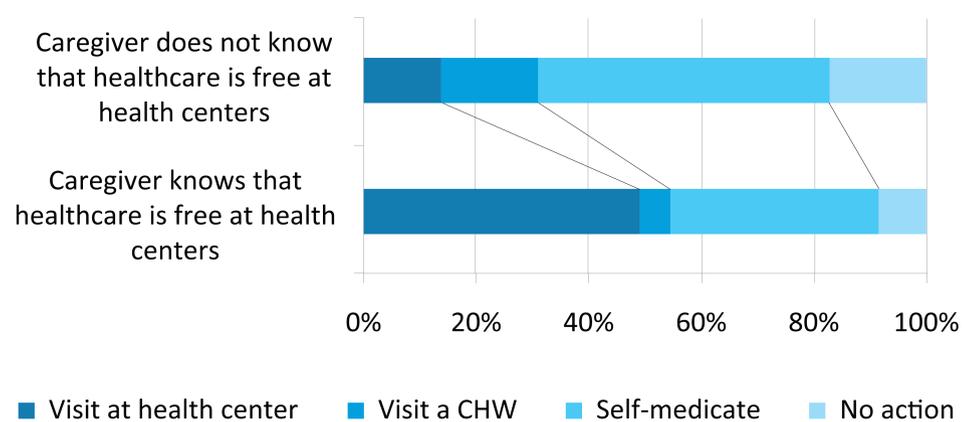
Table 1: Reasons for not bringing a febrile child to the CHW (2013)

| | Urban area | Rural area |
|------------------------------|------------|------------|
| I don't know the CHW | 67% | 23% |
| Preference for health center | 28% | 51% |
| Too far | 0% | 8% |
| Frequent drug shortages | 1% | 5% |
| Other* | 4% | 13% |

* "Other" includes lack of trust, too expensive and bad services

The removal of user fees for children has significantly changed treatment-seeking practices in the study area (Graph 2).

Graph 2: First action for febrile children under 5 years of age in rural areas (2011)



CONCLUSION

Community case management of malaria is not successful in urban areas. Even in rural areas, the uptake of CHWs' services is low compared to results from studies under favorable conditions (controlled trials or pilot projects). We need more evaluation of public health interventions under real-world conditions of implementation.

This natural experiment also shows that the concomitant removal of user fees for children in health centers significantly reduced the likelihood for a febrile child to consult a CHW. Non-governmental actors should better integrate their local interventions with national programs and governmental interventions.

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REFERENCES

- * Druetz T, Ridde V, Haddad S. (2014). The divergence between community case management of malaria and renewed calls for primary healthcare, *Critical Public Health*.
- * Ridde V, Druetz T, Poppy S, Kouanda S, Haddad S. (2013). Implementation Fidelity of the National Malaria Control Program in Burkina Faso, *PLoS One*, 8(7).
- * Druetz T, Haddad S, Kouanda S & Ridde V. (2013). Les enfants de moins de 5 ans sont rarement conduits à un agent de santé communautaire lorsqu'ils présentent de la fièvre. Available at: <http://www.equitesante.org/paludisme-notes-politiques>