The International Rescue Committee (IRC) has been implementing the World Health Organization-supported Rapid Access Expansion (RAcE) program in the Tanganyika Province of the Democratic Republic of Congo since September 2013. The main objective of the program is to reduce under-five mortality by expanding integrated community case management (iCCM) through relais communautaire (community health workers). IRC conducted operational research to determine if simplified tools and an improved training curriculum focused on adult learning methodologies and practical exercises could result in faster, better, and lower-cost implementation of iCCM.

Research Methodology

A non-experimental, static group comparison with a non-equivalent control group was employed for the study. Relais from two health zones (Manono and Kabalo) out of the 11 health zones where the project is active were sampled and assigned to one of two arms of the study:

- Arm 1 (Model 1 - control): current MOPH package of training and tools
- Arm 2 (Model 2 - intervention): intervention package of improved training curriculum and simplified pictorial tools

Three outcomes were used to assess the effectiveness of both packages:

- **Quality of care**: Correctness of assessment and adherence of relais to protocol in treating a sick child at the health center, as measured by direct observation
- **Workload**: Duration of each evaluation of a sick child including completion of tools
- **Cost analysis**: Costs program would incur to roll-out each package in one health zone in Tanganyika province with 100 active relais based on actual cost incurred by the program during the study

Key Findings

**Faster**

Relais using simplified tools spent less time on average per case.

**Better**

Children were three times more likely to receive correct treatment from relais in the intervention group.

**Lower Cost**

Cost-savings of $4,418 per 100 relais during year one of the project
Children were immediately re-examined by a trained clinician after the observation. The quality of care observations were conducted six months after relais were trained.

The IRC targeted having a sample size of 75 relais observed assessing a sick child between 2 and 59 months, for a total of 150 cases. To account for non-response of relais (those who might not be available at the time of assessment), the sample size was inflated to include 80 relais in each targeted health zone.

The table to the right illustrates the breakdown of the relais sampled across both arms. The odds of correct performance were calculated, controlling for characteristics of the relais (age, sex, education, and occupation), the child (age, condition, and complexity of the condition), the health zone, and the average number of supervisions per health area.

### KEY FINDINGS:

1. Children were three times more likely to receive correct treatment from relais in the intervention group.

2. Relais from the intervention group were five times more likely to correctly investigate all danger/alert signs.

3. Relais from the intervention group took less time to complete the observed case.

4. Model 2 results in a cost-savings of $4,418 per 100 relais supported during year one of a project.

- The costing model assumes 100 relais conducting iCCM in one health zone.

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