



OPERATIONS RESEARCH SUMMARY

Quality Assurance Project II

Using Problem-Solving Teams to Improve Compliance with IMCI: Kenya

Background: Health care workers in Kenya who had been trained to use the Integrated Management of Childhood Illness (IMCI) algorithm were observed to comply closely with IMCI guidelines shortly after training, but a year later, their compliance had deteriorated substantially. They gave several reasons for the deterioration: lack of support from above, heavy workload, insufficient time to follow the guidelines, and lack of appropriate drugs and supplies.

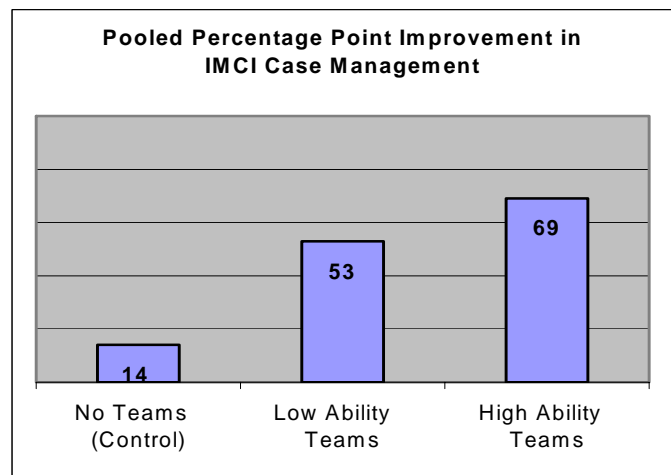
The pilot program: Kenyan health officials agreed that health care facilities need environments that support IMCI care, so they piloted a program of facility-based quality assurance (QA) problem-solving teams. This study evaluated the impact that 21 QA teams had on the use of IMCI in their respective facilities.¹ The teams were newly formed for the study and were coached by district health supervisors during normal supervisory visits. The program facility supervisors took a three-week training on IMCI team coaching early in the study.

Study design: The evaluation compared the quality of care provided by health workers in the 21 sites having QA teams (“program sites”) with that provided by workers in 14 sites lacking such teams (“controls”). All workers had been trained in IMCI for the critical functions of assessment, classification, treatment, and counseling. The study observed IMCI case management in two periods: once in 1998 before the teams were trained and again in 2000, a year after program implementation. The evaluation classified each team as either “high ability” or “low ability” based on its score on a case study exercise.

Results

The results are clear (figure): program sites, especially those with high ability teams, out-performed control sites. When compliance across all cases, facilities, and functions (assessment, classification, treatment, counseling) was pooled, the *increase* in performance was substantially greater in the program facilities (58 percentage point increase) than in the controls (14 percentage point increase). The high ability teams increased 69 percentage points while the low ability teams went up 53 percentage points.

The mean facility performance before and after implementation of the QA teams reflects the same pattern of better performance with QA teams for the assessment and classification functions. However, the treatment function score decreased from 1998 to 2000 for the control and high ability groups, while the counseling score increased significantly only in the “high ability” group. The table on the reverse shows these results.



Percentage of children who received correct IMCI case management, 1998 and 2000						
IMCI Functions	No Team (n=14)		Low Ability Teams (n=15)		High Ability Teams (n=6)	
	1998	2000	1998	2000	1998	2000
Assessment	13.3	36.7*	10.0	36.7*	1.8	41.8*
Classification	53.3	65.5	43.3	63.3	25.5	52.7*
Treatment	64.2	56.3	50.8	55.0	63.6	49.1
Counseling	75.0	60.0*	65.8	57.5	65.5	81.8*

Notes: All figures are means of pooled facility scores for the function in question. Because they are facility means, the scores in this table cannot be used to derive the figures in the figure above. Assessment required the provider to ask about danger signs, symptoms, and sequelae and to make a full nutritional assessment. Counseling required the caretaker to receive all necessary information and make some effort to ensure she or he understood. An asterisk indicates the difference in the 1998 and 2000 scores are significant at $p < 0.05$.

Team innovations: The problem-solving teams tried different ways to improve their compliance with IMCI. Most frequently tried solutions were: procuring more IMCI-required drugs, initiating on-the-job training on IMCI, and introducing a clocking-in register. Other popular efforts included conducting patient IMCI education, systems for sharing staff workload, and trying to reduce patient waiting time.

Cost: The average cost of setting up and maintaining a team for a year was \$424. This is fairly low when compared to the \$250-400 cost of IMCI training for one provider in sub-Saharan Africa at the time of this study.

¹ This study is based on: Tavrow P, Malianga L, and Kariuki M. 2004. Using problem-solving teams to improve compliance with IMCI guidelines in Kenya. *Operations Research Results*. Published for USAID by the Quality Assurance Project, University Research Co., LLC, Bethesda, MD. QAP publications are available at www.qaproject.org.

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