



OPERATIONS RESEARCH SUMMARY

Quality Assurance Project II

Assessing Job Aids that Support IMCI Performance: Zambia

The Integrated Management of Childhood Illness (IMCI) algorithm improves health outcomes when applied properly, but correct application of the extensive algorithm is difficult, especially in settings when human and other resources are restrained. Substantial evidence shows that job aids can assist health providers in performing according to standard, such as the standards embedded in IMCI. This study captured and measured provider attitudes and practices about IMCI job aids in Zambia, including a new job aid designed and implemented as part of the study summarized here.¹

IMCI Job Aids in Use: Zambia was one of the first countries to implement IMCI, so it had a large number of IMCI-trained providers and several IMCI job aids in use when the study began in 1999. An initial survey of 57 providers, all trained in the use of IMCI, in 33 health clinics collected data on their attitudes about four existing IMCI job aids—a chartbook, wall charts, mother cards, and a recording form. Data collection included interviews and observations of providers treating a child with one of the five common childhood illnesses addressed by IMCI. Both provider use of the job aids and provider performance according to IMCI standards were examined. The most used job aid was the chartbook, which has the entire IMCI algorithm and all the recommended drug therapies.

Methods: The initial survey identified many reasons why providers said they used job aids and also noted some provider shortcomings in practicing according to IMCI. This information informed the design of a new job aid, which is similar to the chartbook in that it includes the entire IMCI algorithm. Intended for use with the chartbook, the new job aid presents the algorithm in a check list format, and it includes multiple copies of the algorithm/check list so several visits can be recorded for each child. Other differences are:

- The new job aid excludes drug prescribing information, a safety measure that prevents caretakers, who might retain the job aid, from inappropriately medicating their children.
- It includes information about proper child weight gain and has space to record a brief medical history, child temperature and weight, and non-IMCI symptoms.
- Health centers could retain the new job aid as part of the patient record.

Ten thousand copies of the job aid were printed and distributed to 18 clinics. Soon thereafter, a second provider survey of 56 providers was undertaken, including some from the initial survey. Observation of a single IMCI case was made for each provider in the survey, plus a provider interview. Information was also obtained from interviews with supervisors and caretakers. Similar data to the initial survey were obtained, plus information on the new job aid.

Table 1: Percentage of IMCI Functions Performed to Standard

Case management function	With job aids	Without any job aids
Assessment	82.8%	53.4%
Classification	75.8%	64.5%
Counseling	69.7%	65.8%
Drug Treatment	85.0%	55.3%

Assessment is a pooled result of both surveys. Classification is from the initial survey. Counseling and drug treatment are from the second.

Results: Both surveys found high correlation between the use of job aids and compliance with IMCI standards. Compliance was higher when job aids were used by all types of providers and for three of four management functions (Table 1). However, this result does not demonstrate that job aids caused improved compliance because the job aid

group self-selected. During interviews, providers cited many advantages of using job aids, including “reminds me of the algorithm,” “saves time,” and “reduces errors.” Such beliefs by job aid users strengthened the authors’ opinion that job aids probably do cause higher compliance.

The second survey focused on the new job aid. Compliance with IMCI standards using the new job aid was high, about the same as with the chartbook. 81% of all providers (both IMCI-trained and untrained providers) said the new job aid was a useful tool for IMCI case management. It may have motivated providers not yet trained in IMCI to ask for IMCI training: 79% of the untrained found it useful. Many providers think the new job aid may provide significant advantages as a permanent medical record. However the accuracy of data recorded in a sample of 157 completed job aids in 16 health centers was suspect. More training, follow-up, and possibly redesign of the job aid may be needed.

Early on, some providers expressed concern that caretakers would think less of providers who relied on job aids during case management, but 362 exit interviews found that caretakers overwhelmingly preferred having providers refer to written material during visits. This suggests that educating providers about caretakers’ beliefs in the use of job aids may be appropriate.

Conclusion: This study concludes that additional fine-tuning and assessment is needed before widespread adoption of the new job aid in Zambia, including cost analysis. However, the authors believe this study shows that it is likely to be well received by supervisors, providers, and caretakers, and that it holds the potential to significantly improve compliance with IMCI standards in Zambia.

¹ The complete study is reported in: Edward-Raj A and Phiri PK. 2002. Assessing the functionality of job aids in supporting the performance of IMCI providers in Zambia. *Operations Research Results* 2(8). Bethesda, Maryland: Published for USAID by the Quality Assurance Project (QAP), University Research Co., LLC, Bethesda, MD. QAP publications are available at www.qaproject.org.