

IMCI IMPLEMENTATION IN TANZANIA: EXPERIENCES, CHALLENGES AND LESSONS

This policy brief was written by Hildegalda Prosper and Josephine Borghi.

The authors are based at the Ifakara Health Institute, Tanzania, part of the Consortium for Research on Equitable Health Systems and funded by the Department for International Development (DFID) UK.

For a full copy of a report from the study, or further information, please send an email to hpmushi@ihi.or.tz or jborgi@ihi.or.tz

INTRODUCTION

Integrated Management of Childhood Illness (IMCI) was introduced in Tanzania in 1996 in an attempt to reduce child mortality. The IMCI strategy was developed by the World Health Organization (WHO) and the United Nations International Children's Fund (UNICEF) as an integrated approach to improve child health. IMCI has three components:

1. Training health workers to manage childhood illness at primary health care facilities;
2. Strengthening the health system to enable effective supervision and supplies;
3. Improving community and household practices related to child health.

Tanzania was one of the countries included in a Multi-Country Evaluation (MCE) of IMCI, coordinated by WHO in 1999-2002. The MCE found that IMCI improved quality of care for children under 5 years of age, reduced child mortality by 13% and was cost-effective. However, a decade after the introduction of IMCI in Tanzania, several challenges have emerged and training of health workers remains the main activity implemented.

The Ifakara Health Institute conducted a qualitative case study to investigate the IMCI implementation process at different levels of the health system. A good performing district (Bunda) and less well performing district (Tarime) were picked to investigate implementation experiences at district and facility levels.

KEY ACHIEVEMENTS

IMCI is well institutionalized

IMCI has been relatively well integrated within the health system in Tanzania. An independent IMCI unit has been established in the Reproductive and Child Health division of the Ministry of Health, which has its own budget. IMCI guidelines have incorporated other interventions such as immunization, malaria, nutrition, and HIV/AIDS. Under-5 pre-referral drugs have been included in the drug kit and made available at dispensary level. The Tanzanian health sector is highly decentralized with districts planning and budgeting for health services, including IMCI training.

National roll out

All 114 district councils have received orientation on IMCI, and have appointed focal persons for IMCI/malaria. By 2005, 83% of districts had carried out at least one training. More than 6,646 health workers had

been trained in IMCI case management and over 70% of these received follow-up training at least once. Despite these achievements, implementation of IMCI faces several challenges.



Example of new Comprehensive Care and Treatment Centres for HIV/AIDS

Low training coverage

WHO recommends that at least 60% of health workers seeing sick children in health facilities are trained in IMCI. However, the research reveals that national coverage of trained health workers was estimated to be only 14%. There are variations across districts, with 44% training coverage in Bunda compared to 5% in Tarime. The reasons for low training coverage include:

- **High cost of IMCI training**
The IMCI in-service training course in Tanzania takes 11 days, is residential and has a high facilitator-to-participant ratio. Training one health worker costs approximately \$1,000, a high cost when the per capita district health budget ranged from \$4-9 in the study districts.
- **Weakness of lower cost training alternatives**
In-service training is the dominant mode of IMCI training and alternatives such as pre-service and on-the-job training have not reduced the need for standard training.
 - **Pre-service training:** The main weakness of pre-service training is the absence of a counselling component. It is also difficult to trace health workers that have received training in pre-service institutions, and as a consequence many are usually retrained in-service.
 - **On-the-job training:** Whilst health workers returning from training are asked to share their knowledge and IMCI materials with colleagues, in practice this is often limited to a short feedback session during clinical meetings and there are not enough IMCI job aids for other staff to use. Untrained health workers are sometimes unwilling to learn from others, preferring to attend the training themselves and receive per diems. The lack of transparency in the process for selecting participants also affects peer-learning.

- **Funding arrangements**
IMCI training is financed from pooled donor funds, termed the 'basket fund'. However, the use of funds is limited by budget ceilings. For example, districts are not allowed to spend more than 10% of the fund on training.
- **Shifting international and national priorities**
Globally there has been a reduction in aid flows to IMCI. In contrast, funding to vertical programmes such as malaria, HIV/AIDS and tuberculosis has increased. This is partly because IMCI is relatively difficult to monitor and assess value for money. At the same time IMCI continues to include new components such as HIV/AIDS, management of newborns and nutrition counselling, raising questions of financial sustainability.

Poor adherence to IMCI protocol

Health workers trained in IMCI do not follow the protocol consistently. A recent study found that health workers diagnose children in terms of a single disease and prescribe accordingly. Referral practices are also poor, with less than 50% of severely ill children being referred. Health workers were found to spend little time attending children and administration of the first dose in the facility was rarely observed. The most promising practice was routine weighing of sick children before consultation. Several factors affect health workers' adherence to the IMCI protocol:

- **Duration of the protocol**
The protocol is seen as time consuming and health workers feel the need to cut corners. Health workers feel constrained in the time available to attend clients particularly in areas with a chronic shortage of health workers.
- **Poor supervision practices**
Follow-up supervision is infrequent and doesn't always come within the recommended time due to

“ It is really discouraging ... when you come to financing you find that there is [an] expenditure ceiling, this is the biggest impediment which prevented us from covering the area But if there weren't these restrictions we could have covered ... in the first year ... all health facilities at once”.

- District Stakeholder, Bunda

“If people are just left without any supervision, at first they might try to be serious but with time they will use the short cuts and leave an item after another. Therefore, I think lack of supervision has weakened IMCI, people need to be reminded that you are supposed to do this and this, why aren't you doing it accordingly?”

- Health worker, Bunda

a shortage of facilitators and funds. IMCI is poorly integrated into routine supervision and often routine checklists are not available.

- **Reluctance to refer**
Health workers were sometimes reluctant to refer patients that they felt they could treat themselves. Follow up and referral care were also poorly adhered to by patients due to high transport costs, poor infrastructure, and lack of familiarity with referral facility staff.
- **Frequent rotation of staff within facilities and high attrition rates**
This minimizes the opportunity for health workers trained in IMCI to practice their skills.
- **The nature of the strategy**
Interventions which seek to improve quality of care, such as IMCI, are inherently difficult to monitor. The lack of clearly verifiable indicators to determine whether IMCI is being implemented appropriately is likely to reduce motivation amongst health care providers and affect compliance.
- **Lack of IMCI drugs and job aids**
Lack of drugs in facilities limits health worker capacity to administer the first dose of treatment. Job aids such as the chart booklet, wall charts, timing device, recording forms, cups and buckets for storing drinking water were generally in short supply. This limited on-the job training and overall compliance to the protocol even for those trained.
- **Facility lay out**
In some facilities, services are arranged in ways that make it difficult to directly observe treatments. Patients receive their drugs at the pharmacy which does not allow for observation of the first dose.

Districts making a difference

Despite the challenges, some districts are trying hard to expand IMCI training coverage. Bunda has managed to do at least one training every year since 2002. 86% of facilities have at least one health worker trained. Some lessons can be learnt from Bunda's success:

- Almost all the district managers were trained in the strategy and this increased their awareness and willingness to budget for IMCI.
- 7 facilitators were also trained and this reduced the cost of subsequent trainings.
- There have only been two district medical officers since the introduction of IMCI, both were involved in IMCI implementation from the start.
- The district medical officers were supported by a wide network of IMCI stakeholders and participated in a number of IMCI activities both nationally and internationally.



- **Cutting the costs of training**

There is a pressing need to cut the costs of IMCI training to rapidly expand coverage of trained health workers. Options include: shortening the length of the course, making it non-residential and reducing the facilitator-to-participant ratio. To make on-the-job training more widespread, better supervision systems are needed and additional IMCI materials should be made available.

- **Training focus**

Clinicians, who are the official prescribers, tend to be the target of IMCI training. However, in practice, lower level cadres often have a more positive attitude towards IMCI, and have a higher presence in facilities. Training these cadres could substantially increase the number of health workers able to deliver IMCI. Training of district managers is also crucial to the success of the strategy.

- **Training process**

The procedures for selecting health workers for training need to be reviewed to increase transparency. Steps are also needed to identify health workers who were trained during the pre-service period to avoid re-training.

- **Availability of facilitators**

Shortage of facilitators affects the cost of training and districts' capacity to undertake training. Counting and locating available facilitators at the national level could help to determine need across the country and to plan strategies to increase the number of facilitators.

- **Increase district financial autonomy**

Giving districts more flexibility over how they spend basket funds, with little or no strings attached, could speed up the roll out of IMCI and further empower districts in their budget allocation decisions.

- **Addressing health system challenges**

Tackling health system constraints such as: drug availability, lack of IMCI job aids, space, human resources and effective supervision would facilitate IMCI implementation.

- **Promoting accountability**

Consensus is needed on IMCI indicators to allow for a more complete incorporation of IMCI into the Health Management Information System (HMIS). Improving the supply of daily monitoring tools, such as recording forms, in the facilities would also encourage compliance.

- **Community participation**

As implementation of Community IMCI expands, IMCI messages to communities should emphasize the importance of referral care, the rational use of drugs, and compliance to follow up.

- **A general lesson of caution when adopting global interventions**

Poor countries like Tanzania need to define priority interventions and find ways to financially sustain them in the long term to reduce their susceptibility to variations in donor financing interests. There is also a need to take precautionary measures when adopting global health system-based interventions to ensure proper adaptation (e.g. in training methods) to match local resource availability.