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Integrated Management of Childhood Illness (IMCI) District Training in Zambia: *A critical analysis of district profiles*

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Introduction

- IMCI strategy aims to build the skills of health workers attending to children and strengthening the requisite systems in order to contribute to the reduction of morbidity and mortality in children under the age of five.
- At the time of data collection (Dec 2005 to March 2006), there were 38 out of 72 districts in Zambia implementing IMCI.
- There has been no systematic review of factors such as status of IMCI implementation, the numbers of IMCI trained staff, integration of IMCI in district action plans and overall effect on under-five mortality.



Study justification

- Effective implementation of IMCI depends on the availability of skilled and motivated personnel both at the district and health centre level.
- Lack of data on IMCI trained health workers
- Analysis of the factors that influence IMCI case management training for district staff is also lacking.



Objectives

General Objectives:

- To review the overall IMCI implementation and identify factors that influence the district ability to train health workers in IMCI case management.

Specific objectives:

- To describe the distribution of IMCI implementing districts.
- To describe the level of staff trained IMCI in the districts by health centre.
- To determine factors associated with IMCI case management training.
- To compare under-five mortality rates by district.



Methodology:

- The study was conducted between December 2005 and March 2006
- Data was collected from all 72 districts in Zambia by:
 - ✓ Use of checklist.
 - ✓ Review of district action plans
- District IMCI orientation visit reports were also reviewed .
- The data was analyzed using Stata



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Results: *Health Centres (HCs) and IMCI*

- 16 urban districts (category A&B) and 56 rural districts (category C&D).
- Total of 1167 HCs- 69% in the rural and 31% urban
- Over 60% of HCs in rural and urban had only 1 - 5 health workers



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Results: *Health Centres (HCs) and IMCI/cont*

- 2% (8) of urban and 9 % (76) of rural HCs had no trained health workers.
- About 50% (408) of rural HCs and 39% (140) urban HCs had no health worker trained in IMCI
- Over 50% of both rural and urban HCs had less than 16% of health workers trained in IMCI.
- Only about 20% of HCs had more than 60% of health workers trained in IMCI in both rural and urban areas.



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Districts/District Health Management Team and IMCI

- Overall 69% of urban and 45% of rural districts were IMCI implementing.
- 81% urban and 50% rural districts had 0-30% of the health workers trained in IMCI.
- 56% urban and 26% rural DHMTs had none or one staff trained in IMCI.
- Only 19% of both rural and urban DHMTs had more than 4 staff trained in IMCI.



Districts/District Health Management Team and IMCI/cont

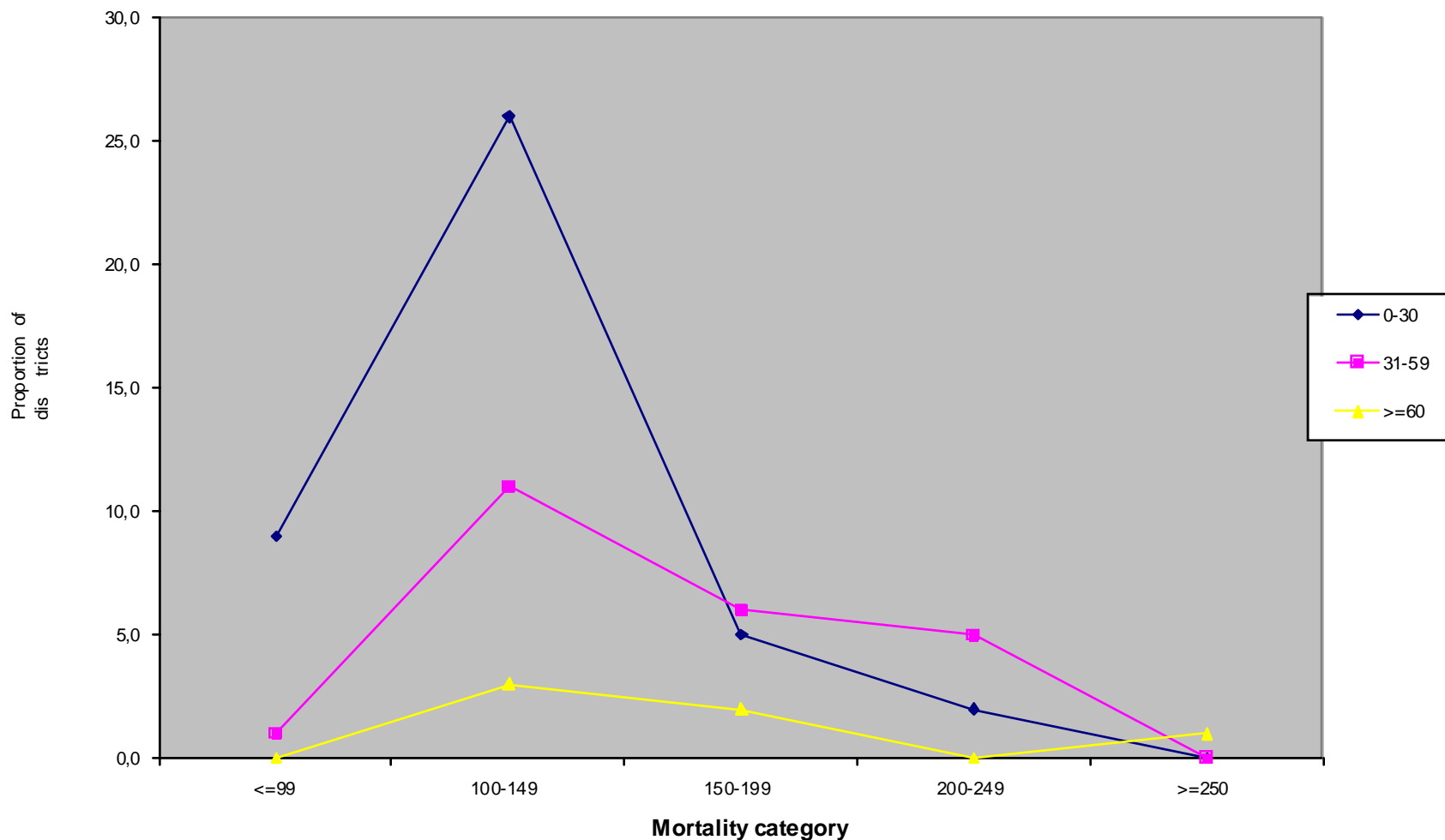
- More than 80% of DHMTs had included IMCI in their action plans for 2006.
- Most districts had U5MR falling between 100-149/1000 (88% urban and 46% rural).
- More rural districts had U5MR above 200 (16% rural and 6% urban).



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Mortality according to proportion of trained workers in IMCI:



Logistic regression for determinants IMCI training (at least 30% of health workers trained in IMCI)

	Odds ratio	P-value	95% CI
IMCI implementing district	2.40	0.142	0.74-7.78
Under-five mortality	1.02	0.004	1.01-1.04
Urban	0.40	0.220	0.09-1.74
IMCI in plan	1.43	0.662	0.36-5.71



Discussion

- Most HCs were rural based and most of them had between 1 to 5 health workers.
- Higher numbers of health workers per HC were observed in urban clinics.
- However urban districts were less likely to have a higher proportion of health workers trained in IMCI:
 - ✓ A reflection of higher number of urban staff - with relatively fewer trained in IMCI.
 - ✓ Perceived importance of IMCI in rural areas where access to services is generally more difficult.
 - ✓ Confirms the fact that rural areas with lower staffing levels are prioritizing IMCI training.



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Discussion/cont

- Positive finding: over 80% of DHMTs had included IMCI in their 2006 action plans.
- Fewer than 25% of HCs had reached the recommended level of training over 60% of the health workers in IMCI (similar to findings of HFS 2001- static past 5 years).
- Absence of trained staff in some HCs in rural areas constrained IMCI training.



Discussion/cont

- Among the districts that reached the 60% threshold, some possible contributing factors to this achievement could be:
 - ✓ Strong NGO/partner presence in the district
 - ✓ A strong provincial IMCI facilitator team
 - ✓ Strong district level training programme (Integrated Competence Training)



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Discussion/Cont

- Higher U5MR was observed in rural districts compared to urban districts.
- Being an IMCI implementing district was not necessarily related to a reduction in mortality.
- Districts with over 60% of workers trained in IMCI appeared to have lower U5MR.

This finding has to be taken with caution because mortality is a product of many factors and a more controlled study would have to be undertaken to show this impact. A study done in Tanzania by Joanna RM Armstrong Schellenberg et al looking at the “effectiveness and cost of Facility –based integrated management of childhood illness in Tanzania” Lancet of October 2004; showed that if well implemented IMCI could reduce mortality up to 13%.



Discussion/cont

- The study has also revealed major gaps in the district capacities to offer the leadership in IMCI training in both rural and urban districts.
- 56% urban and 26% rural DHMTs had none or 1 staff trained in IMCI.
- The recommendation is to have at least 3 DHMT staff trained in IMCI.



Discussion/cont

Although >80% of the districts had included IMCI in their district action plans, more effort is required to ensure effective implementation



Conclusion

The study has revealed major gaps in IMCI training in both rural and urban areas. The absence of trained health workers in some of the HCs makes it difficult to reach the desired threshold levels. This calls for concerted efforts from all stakeholders in order to improve training and effective implementation of IMCI at both district and health centre level.



References/acknowledgements

Acknowledgements:

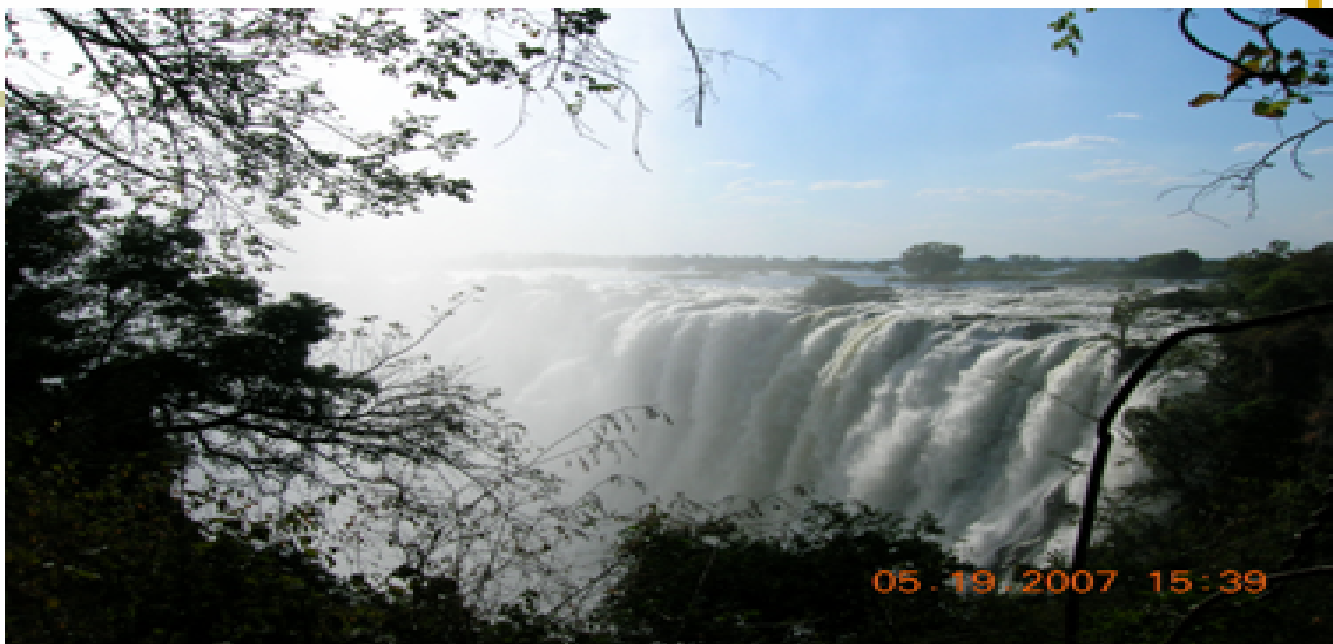
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