

Policy Brief: TB in children with AIDS-affected caregivers

Citation: Cluver, L, Orkin, M, Kuo, C, Moshabela, M, Boyes, M. (2013). *The hidden harm of home-based care: Pulmonary tuberculosis symptoms among children providing home medical care to HIV/AIDS-affected adults in South Africa. AIDS Care, 25, 748-755.*

Millions of children undertake personal and medical care for family members who are unwell with HIV/AIDS. No research has examined whether such care provision places children at elevated risk for infectious diseases. This study aimed to identify risk factors for paediatric pulmonary TB symptoms in South African children. This research is a collaboration between South African government, the National Action Committee for Children Affected by AIDS (NACCA), Oxford University, and the University of KwaZulu-Natal.

The Questions:

- What are the risk factors for pulmonary TB symptoms in South African children?
- Is there a cumulative effect of identified risk factors on contracting pulmonary TB?
- What proportion of TB symptomatic children had been tested and received treatment?

The Research:

- Cross-sectional survey of 6002 children aged 10-17 years in rural and urban sites in the Western Cape, Mpumalanga, and KwaZulu-Natal, South Africa.
- Validated scales and symptom checklists were used.

Finding 1: Risk factors for pulmonary TB symptoms in South African children

- Children who were *exposed to bodily fluids* whilst providing medical care were over **3 times** more likely to be TB symptomatic than children not exposed to bodily fluids.
- Children with an *AIDS-ill caregiver* were **1.6 times** more likely to be TB symptomatic than children whose caregiver was not AIDS-ill.
- Children who were *food insecure* were **1.5 times** more likely to be TB symptomatic than children who have enough to eat
- *AIDS-orphaned* children were **1.4 times** more likely to be TB symptomatic than children not orphaned by AIDS.
- Children living in *overcrowded conditions* were **1.4 times** more likely to be TB symptomatic than children in homes that were not overcrowded.

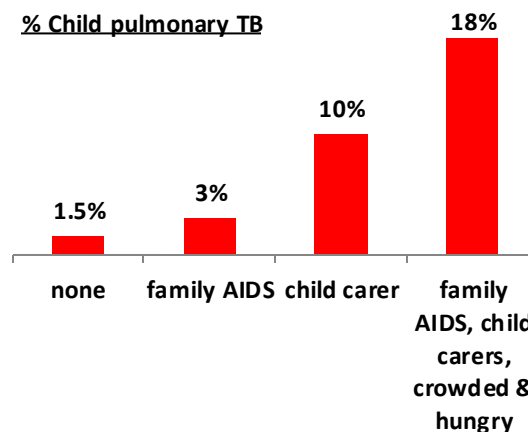
Finding 2: Cumulative effect of exposure to risk factors

- There was a clear cumulative effect of exposure to identified risk factors
- The proportion of TB symptomatic children rose from only **1.5%** among children exposed to none of the identified risk factors to **18%** amongst those exposed to all the risk factors

Finding 3: Proportion of symptomatic children who had been tested for TB and received treatment

- Only **25%** of TB symptomatic children had been tested for TB (sputum test)
- Of those who reported being tested or receiving a diagnosis only **11%** reported ever receiving treatment

% Child pulmonary TB



Conclusions:

- Exposure to bodily fluids while providing care, having an AIDS-sick caregiver, food insecurity, being AIDS-orphaned, and household overcrowding are all risk factors for TB in South African children
- There is a cumulative impact of risk factors and children exposed to all these multiple risks are 12 times more likely to be TB symptomatic than children exposed to none.
- TB testing rates in symptomatic children are low and improved health and community services are required.

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