

# Prevalence of Malnutrition among the Children under 5 Years in East African Countries from 2013 to 2017

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**Abstract**— This meta-analysis analyzed the prevalence of malnutrition among the children under 5 years old from 2 selected east African countries from 2013-2017. Search engines used Pubmed with 100 studies selected eliminating 97 using inclusion and exclusion criteria. The PRISMA guideline helped in the final selection of the three selected studies. The prevalence of malnutrition from 2 east African countries from 2013-2017 was 11% in Ethiopia and 19.7% in Kenya from the 30,215 total population.

**Key words:** Children, East Africa, Malnutrition, Nursing, Public Health

## I. INTRODUCTION

Prevalence on malnutrition among children in east African countries has one of the highest levels of child malnutrition globally (1, 2, & 3); therefore a critical look at the distribution of malnutrition within its sub-region is required to identify the worst affected areas. This study provides a meta-analysis of the prevalence on malnutrition with indicators such as stunting, wasting, and under nutrition using body mass index (BMI) of  $\leq 19$  (4, 5, 6 & 7).

## II. METHODS

Pubmed was used as search engine. Key words entered on search engines as English text words are “children + east Africa + Malnutrition + public health”.

The inclusion criteria were a population based study with participants under 5 years of age. Community based intervention from African participants living in east African countries from 2013-2017 were also a criteria. Extracted data used the PRISMA guideline (figure 1). Of 100 studies found on research engines only three were selected.

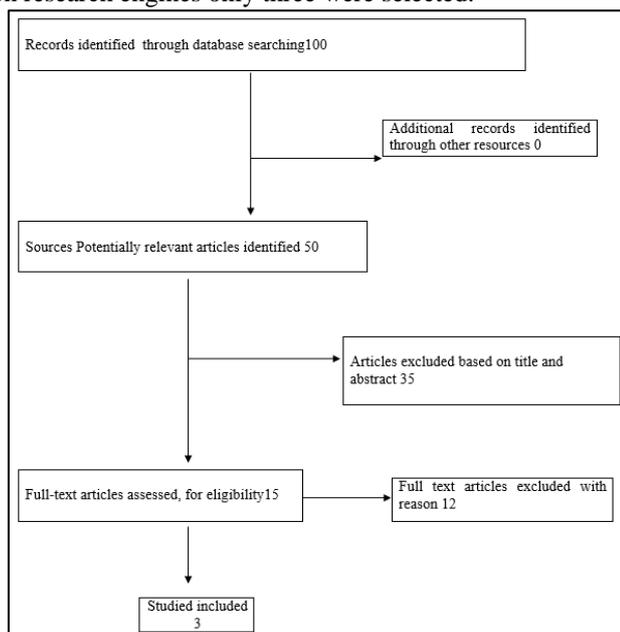


Fig. 1: Methods

## III. RESULT

The overall of prevalence of malnutrition among the children under 5 years in 3 selected countries was 6,254.5 (RR= 0.708) (OR= 0.11) (SD= 011.7) (mean= 10071.6) (probability= 0.73) from the 30,215 total populations (table 1). The only variable associated within all forms of malnutrition was n=36,215 children aged 5 years and below (4, 5, & 6). There were n=360 deaths reported during the 177 days of the recall period of which n=186 (52%) were among the children aged 5 years under (6).

In Kenya, the crude death rate for the entire recall period was 0.8 per 10,000 person/day, more than two-thirds of all deaths affected by the drought from last October 2011(5). Kenya had n=3,335 children under 5 years having 46% (51% boys, and 2% girls) wasted, 11% (13% boys, and 9% girls) underweight  $\leq 19$  BMI, and a 2.5% (3% boys, and 2% girls) stunted (5 & 6). In Ethiopia includes n=3,420 children had associated factors of stunting and wasting (4). These incidences were due to big family size, and less monthly income of the households.

Studies	intervention	population	Outcome
Amare et al.2016	Determined the prevalence of malnutrition	Ethiopia 342	11%
Polonsky et al 2013	Assessed the prevalence of malnutrition	Kenya 26,583	8.6%
Kimani-Murage et al 2015	Determined the Prevalence of malnutrition	Kenya 3335	1.1%
(RR= 0.708) (OR= 0.11) (SD= 011.7) (mean= 10071.6) (probability= 0.73)			

Table 1: Prevalence of malnutrition

## IV. CONCLUSION

This study concludes that the prevalence of malnutrition in 2 east Africa countries for a 5 years period (2013-2017) was 1.1% in Kenya, and 19.7% Ethiopia from the 30,215 total populations.

Prevalence of malnutrition among children under 5 years of age is still high in east African countries (7 & 8). Our finding highlighted the important of family planning and poverty alleviation as potential factors affecting under nutrition particularly stunting early in life, with high levels of underweight in childhood urban and poor settings (9). This calls for urgent action.

The complex nature of prevailing circumstance in urban poor settings is needed to be understood using the pathways to the coexistence and feasibility and effectiveness of context-specific interventions to curb associated health risks or higher death rates (8 & 9). Prevalence of malnutrition among these populations reflected at least a particular failure

of the various humanitarian and governmental acts and policies to adequately safeguard the health and welfare of east African population <sup>(7)</sup>.

#### ACKNOWLEDGMENTS

Special acknowledgement is given to Lincoln University College, Malaysia for the academic guidance, specifically to Regidor-111 Dioso for his supervisions. The author would also like to thank East Africa University for their support.

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