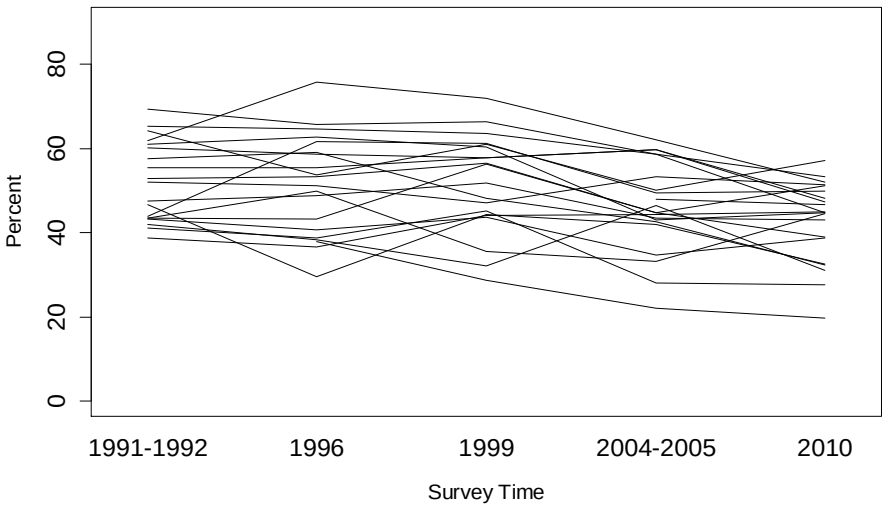
GRAPHICAL PRESENTATION OF KEY NUTRITION INDICATORS

Malnutrition prevelence among Children underfive is still high in Tanzania. Tanzania Demographic and Health Survey (TDHS) data was re-analysed by World Health Organization (WHO) using WHO 2006 growth standands. The estimated prevalence of all 21 regions of Tanzania mainland were ploted so as to compare prevalence of malnutrition of children under five years of age between regions for all six repeated surveys. Plot 1 shows prevalence of stunting among children under five for 21 regions of Tanzania. The plot shows the prevalence of stunting for all regions was between 39 percent and 75 percent for survey conducted in 1991-1992. However the change in prevalence of stunting was small in all 21 regions as a result during 2010 the prevalence of stunting was between 25 percent and 60 percent, however majority of regions had prevalence above 40 percent in all repeaed surveys. Further plots shows there was much between region variability of prevalence of stunting as compared to within region variability.

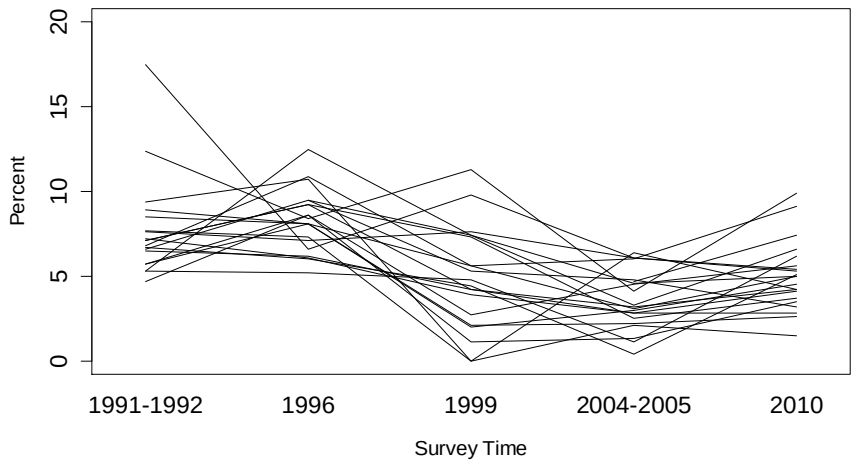
Plot 1: Prevalence of stunting for children under five for all 21 regions of Tanzania



Plot 2 shows the prevalence of wasting for children under five in all 21 regions in Tanzania. The plot shows in the begining (1991-1992 survey time) there two regions with very high prevalence of wasting (prevalence above 10 percent), while other regions prevalence of wasting was between 4 percent and 10 percent. In 1999 there was high variability of prevelence of wasting between regions,

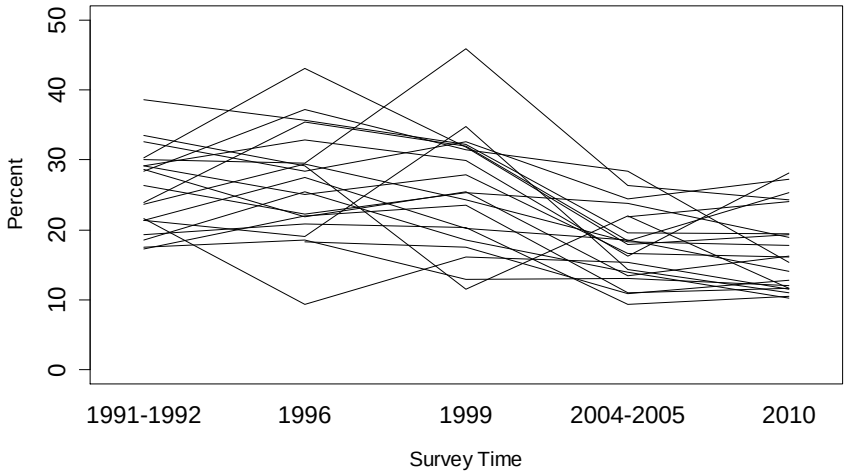
where by some regions had high prevalence of wasting while others had very low prevalence of wasting. Small variation in prevelence of wasting was observed in 2004-2005 survey time and 2010 survey time, however there few regions which showed increasing trend of wasting from 2004-2005 and 2010 survey time.

Plot 2: Prevalence of wasting for children under five for all 21 regions of Tanzania



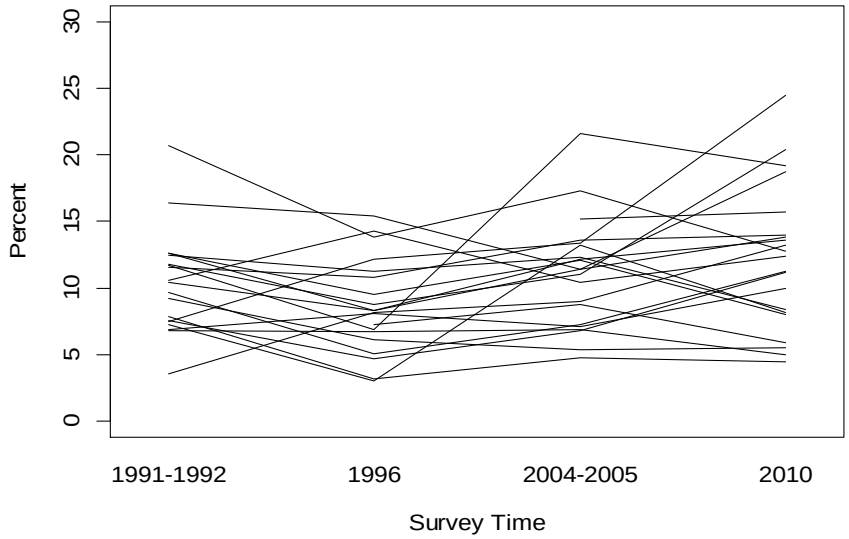
Prevalence of underweight for first four survey time shows much between regions variability; year 1991-1992, 1996 and 1999, while at 2004-2005 and 2010 the between region variabilty was smaller as compared to previous surveys. Majority of regions had high prevalence of underweight in earlier surveys as compared to 2004-2005 and 2010 TDHS. Similar prevalence of underweight was observed for 2004-2005 survey and 2010 survey.

Plot 3: Prevalence of underweight for children under five for all 21 regions of Tanzania



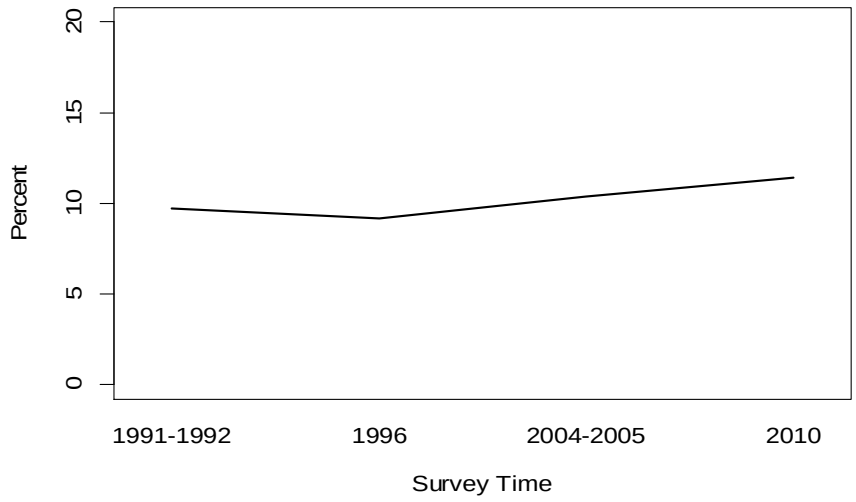
Results of 4 TDHS for Body Mass Index (BMI) among women of reproductive age (15 -49 years) was plotted by regions. The plot showed small change in proportion of women classified thin in all four surveys.

Plot 4: Proportion of women of reproductive age categorised thin by regions

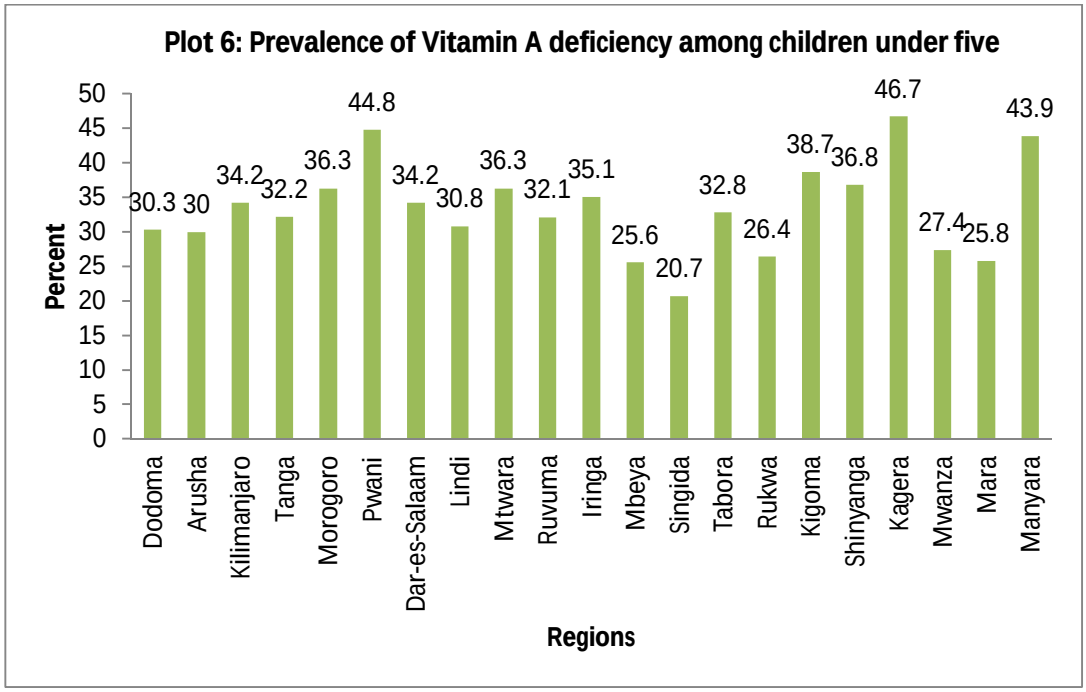


Similarly national prevalence of thin women in 1991-1992 was about 10% while in 2010 national prevalence of women classified thin were 11.4%. This shows slight increase in prevalence on thin women over time.

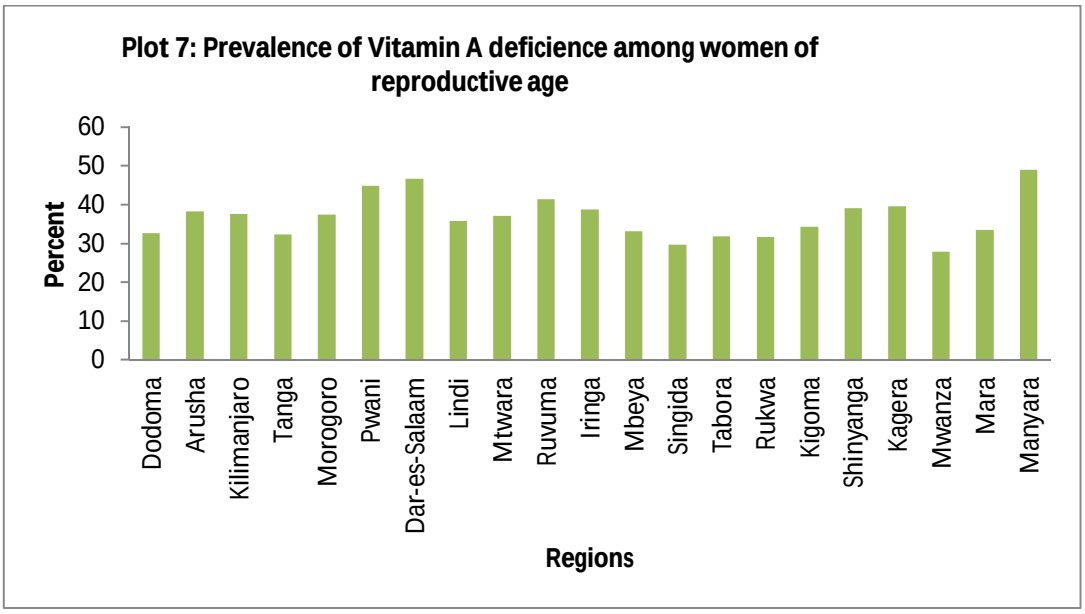
Plot 5: Proportion of women of reproductive age categorised thin in Tanzania



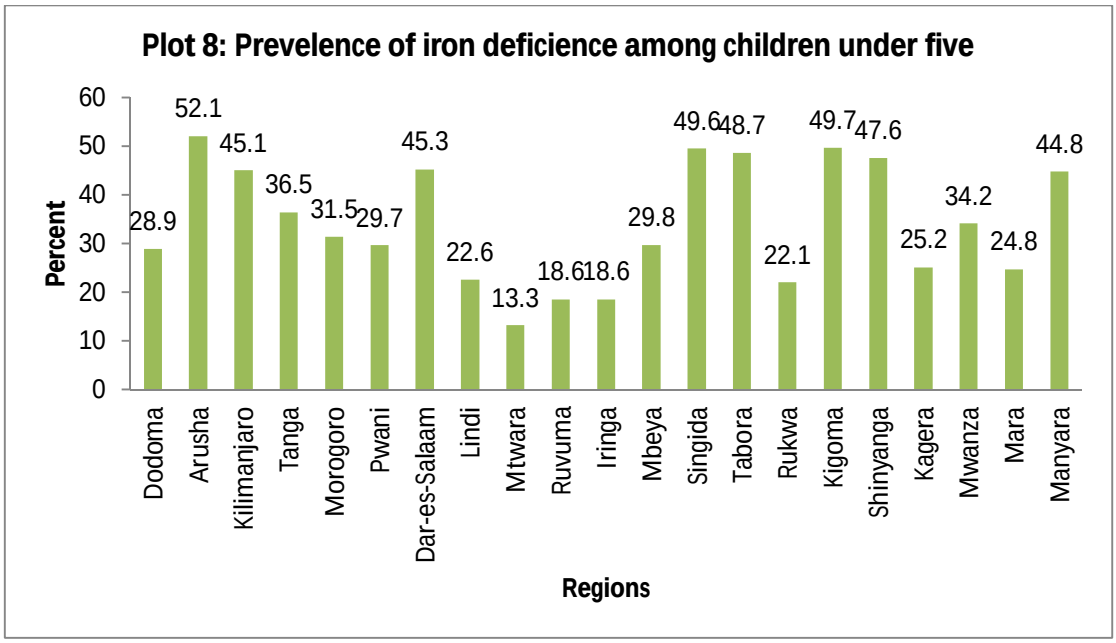
Further micronutrient nutrient indicators were also summarised in plots. In 2010 TDHS included micronutrient indicators in the survey, results showed at national prevalence of vitamin A deficiency was 33% among children under five years of age. Analysis done by region results showed prevalence of vitamin A deficiency among children under five was above 30 percent in many regions, the smallest prevalence of vitamin A deficiency was observed in Singida region (20.7 percent) while the highest prevalence of vitamin A deficiency was in Kagera region followed by Pwani region (46.7 percent and 44.8 percent respectively).



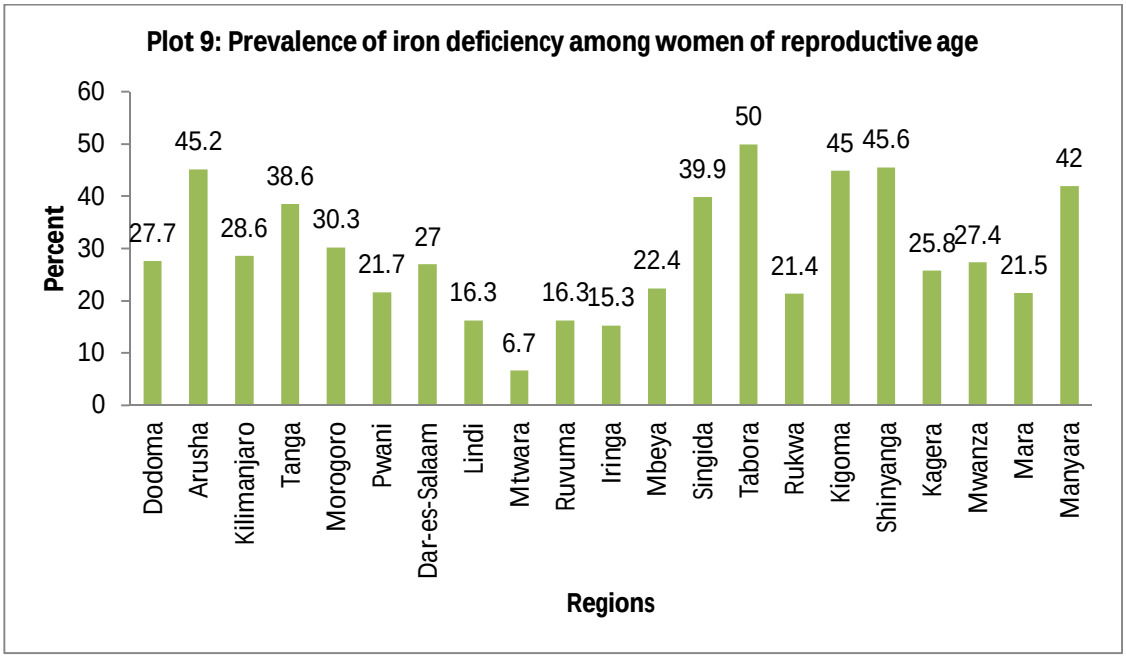
Prevalence of vitamin A deficiency among women of reproductive age at national level was 36.7 percent. The highest prevalence was observed in Manyara region followed by Dar-es-Salaam (49.1 percent and 46.8 percent respectively) and many regions had vitamin A deficiency above 30 percent except for Singida and Mwanza where prevalence were 29.8 percent and 28 percent respectively.



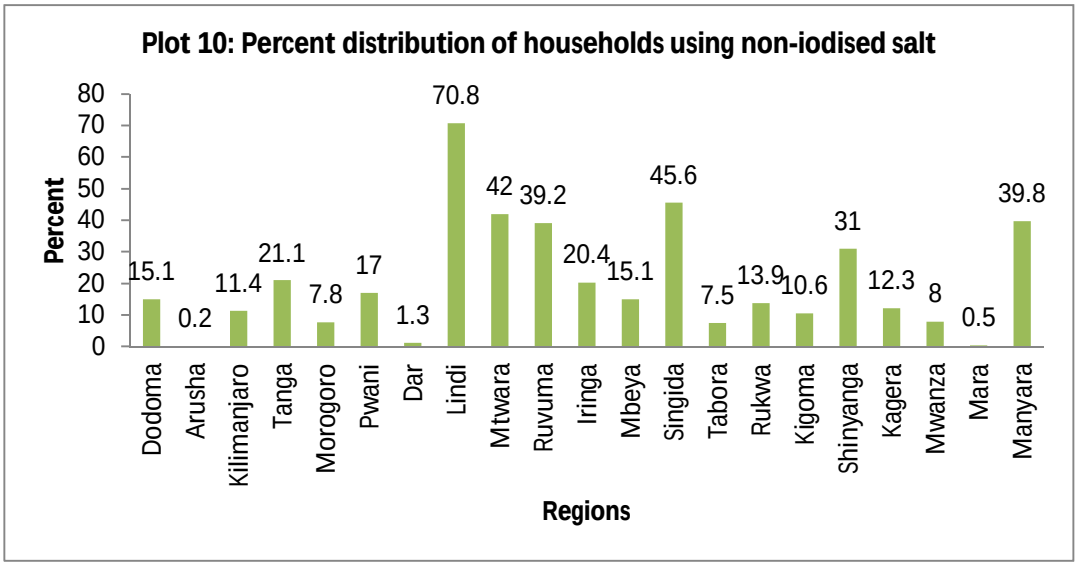
Iron deficiency among children under five years of age; results of TDHS 2010 showed high variability of prevalence of iron deficiency between regions, some regions had higher prevalence of iron deficiency for example Arusha (52.1 percent), Singida , Tabora, Kigoma and Shinyanga (all with about 48 percent), while other regions had low prevalence of iron deficiency for instance Lindi (13.3 percent), Ruvuma and Iringa (both with 18.6 percent).



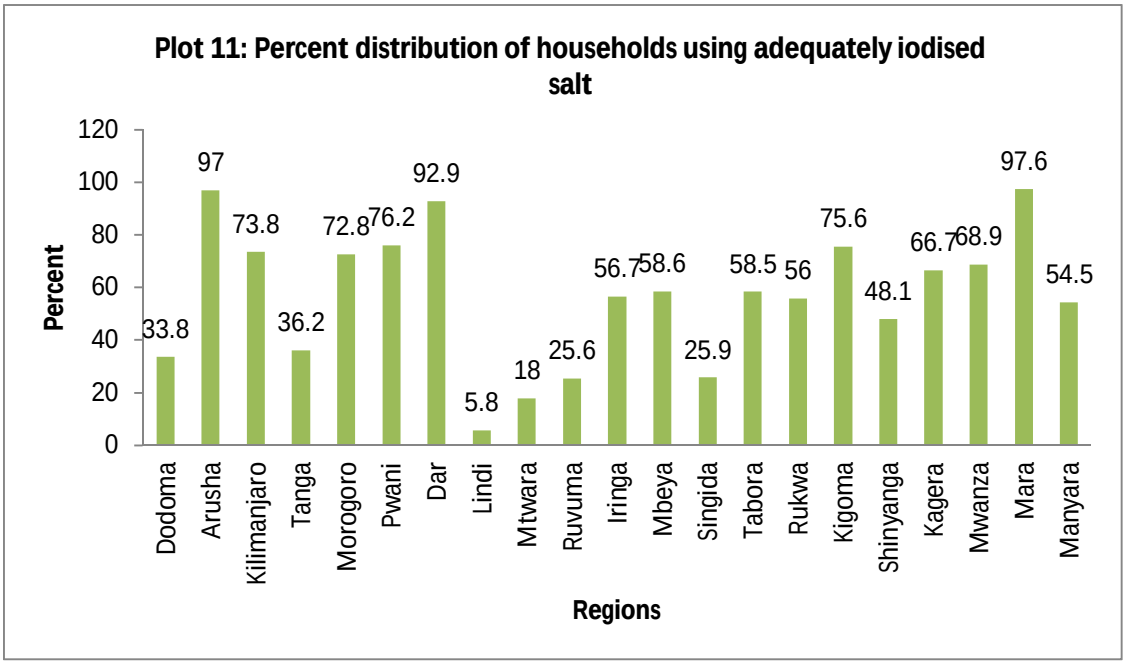
Iron deficiency among women of reproductive age also showed larger between regions variability. Regions with highest prevalence were Tabora (50 percent), Shinyanga (45.6 percent), Kigoma (45 percent) and Arusha (45.2 percent), while smallest prevalence was observed in Mtwara (6.7 percent) and Lindi and Ruvuma showed similar prevalence of iron deficiency (16.3 percent). Many regions had prevalence of iron deficiency between 20% and 30%.



Plot 10 shows percent distribution of households using non-iodised salt. Result shows very high variability of consumption of non-iodised salt between regions. Lindi had the highest proportion of households consuming non-iodized salt (70.8%). Further Singida, Mtwara, Ruvuma, Manyara and Shinyanga have large proportion of households consuming non-iodised salt ether. However regions like Arusha, Mara and Da-es-Salaam had very low proportion of households consuming non-iodised salt (0.2 percent, 0.5 percent and 1.3 percent respectively).

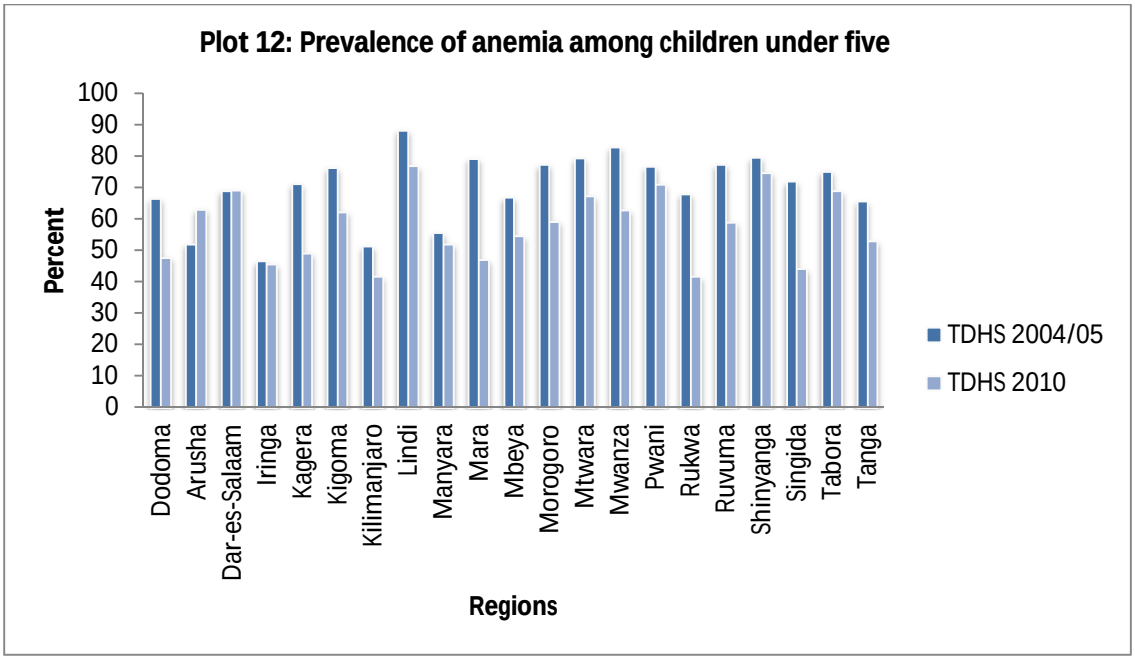


Furthermore percent distribution of households consuming adequately iodised salt was also explored in plot 11. This plot shows there were between region variability of consumption of adequately iodised salt, few regions for instance Arusha (97 precent), Mara (97.6 percent) and Dar-es-Salaam (92.9 percent) had many households consuming adequately iodised salt. These were regions with very few households consuming non-iodised salt, this shows very few households in these region were consuming salt which was inadequately iodised. Whereas Lindi (5.8 percent), Mtwara (18 percent), Ruvuma (25.6 percent) and Singida (25.9 percent) there were few households consuming adequately iodised salt. This results call for immediate intervention on salt iodation in Lindi and Singida.

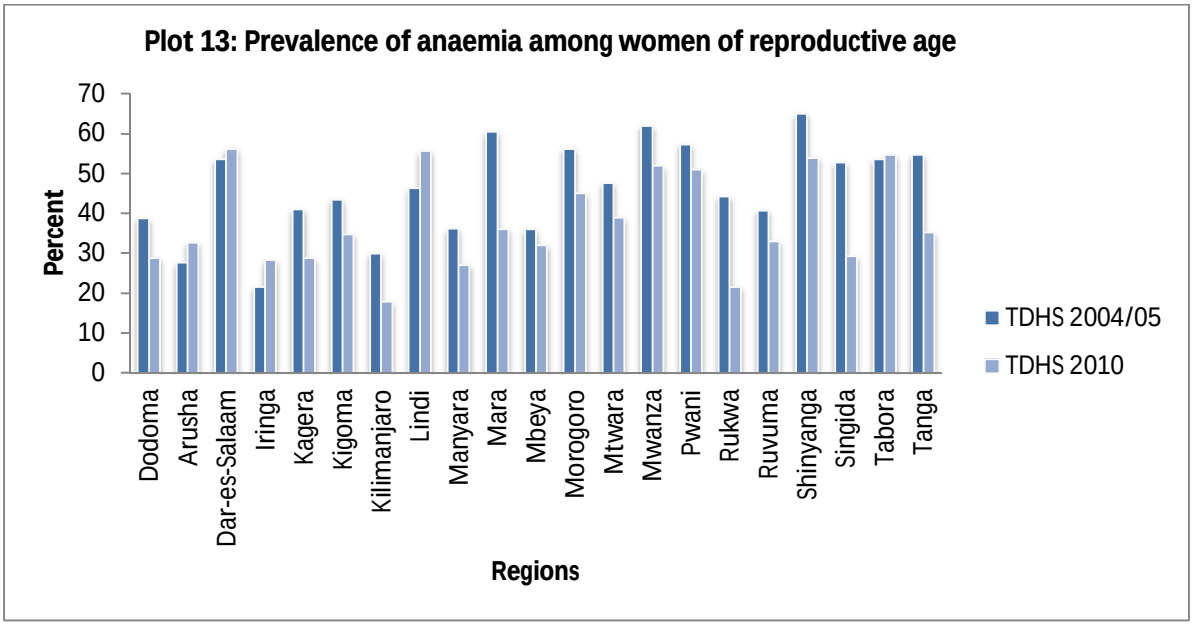


Anaemia among children under five was assessed in TDHS 2004/5 and 2010. Therefore results of these two surveys were compared in order to monitor the progress in reducing anaemia in all 21 regions in Tanzania by then. In general in many regions prevalence of anaemia was reduced in 2010 except Arusha (whereby the prevalence increased), Dar-es-Salaam and Iringa whereby there was a very small change in prevalence of anaemia. Further Lindi and Mwanza regions showed high

prevalence of anaemia in 2004/05, while in 2010 high prevalence of anaemia was high in Lindi (76.8 percent), Shinyanga (74.7 pecent) and Pwani (70.9 percent). Large percent reduction of anaemia among children under five from 2004/05 to 2010 was observed in few regions namely; Mara (percent reduction was 32.1), Singida (percent reduction was 27.7), Rukwa (percent reduction was 26.3), Kagera (percent reduction was 22) and Dodoma (percent reduction was 18.6).



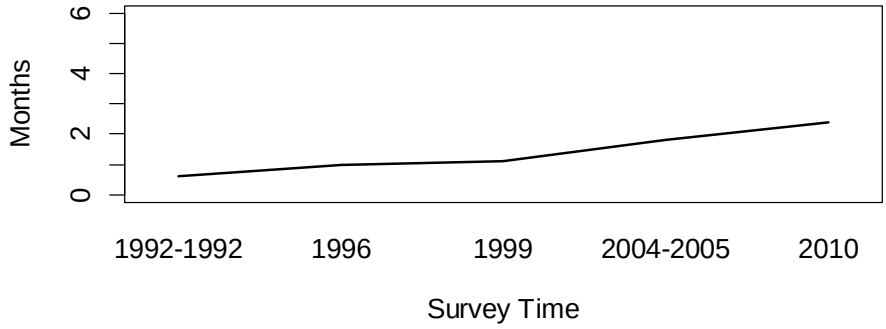
The prevalence of anaemia among women of reproductive age for both surveys for some regions the prevalence was increased in 2010, for instance Arusha, Dar-es-Salaam, Iringa, Lindi and Tabora. Lindi and Iringa were regions with higher percent increase of anaemia (9.3 percent increase for Lindi, 6.6 percent increase for Iringa and 5 percent increase for Arusha). Due to various efforts against anaemia among women of reproductive age, the rest of regions showed reduction of prevalence of anaemia, among these there were regions with lager percent reduction for instance Mara (24.4 percent reduction), Singida (23.4 percent reduction), Rukwa (22.6 percent reduction) and Tanga (19.5 percent reduction).



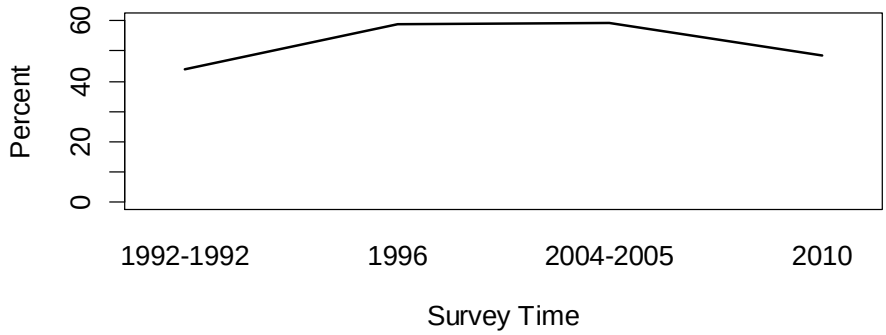
Exclusive breast feeding practises in Tanzania is still very low, recent statistics showed that only 50 percent of infants below 6 months were exclusively breastfed (NBS [Tanzania] and ICF Macro, 2011). Plot 14 summarises median duration for exclusive breast feeding and proportion of children initiated breast feeding within 1 hour after delivery in Tanzania. The plot shows in the beginning of this survey (1991-1992) the median time for exclusive breast feeding was less than one month, but with time the median duration for exclusive breast feeding was increasing slowly up to 2.4 months. With these results many efforts are needed to increase time for exclusive breastfeeding up to the recommended time of 6 months.

Further initiation of breast feeding within one hour after birth is very important for children, because first milk (Colostrum) contains immune factors, growth factors and nutritional components (vitamins, minerals, amino acids and essential oil). The same plot shows in the beginning the proportion of children initiated breast feeding with 1 hour was lower and it increased in 1996. From 1996 to 2004-2005 there was similar proportion of children initiated breast feeding within 1 hour (59 percent) however in 2010 the proportion decreased up to 48.7 percent.

Plot 14: Median duration for exclusive breast feeding in Tanzania



Proportion of children initiated breast feeding within 1 hour after birth in Tanzania



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