Approximately one in twenty children in the world have a disability. Childhood disability is thought to be most common in the poorest parts of the world, though there is very little data.

Malnutrition is a leading cause of childhood death in these low income settings, causing almost half of child deaths in 2011.

Malnutrition may also be linked to childhood disability, either as a cause or effect as shown in the figure below.

Children with disabilities may be particularly vulnerable to malnutrition during humanitarian crises, such as caused by the ongoing drought in Turkana region of Kenya.

Few studies have addressed the relationship between disability and malnutrition or inclusion of people with disabilities in humanitarian crises.

The study aimed to assess:

a) whether children with disabilities were included within humanitarian aid in Turkana

b) whether there was an association between disability and malnutrition.

Study Methods:
The focus of the research was the Turkana Central and Loima districts. The fieldwork was undertaken in 2013 using both qualitative and quantitative methods.

Qualitative study: Interviews were conducted with 31 families of children with disabilities and 11 key informants. The interview guide covered the following areas:

1. Basic family information
2. Beliefs and attitudes
3. The impact of caring
4. Feeding practices
5. Access to services

Quantitative study: Key Informants identified 311 children with disabilities in the community. These children were visited by a paediatrician and screened using a questionnaire and clinical assessment to verify that they had a disability.

For each child with a disability, we selected their closest age sibling (n=196) and their closest age neighbour (n=300) for inclusion in the study as control subjects. The study was restricted to children aged 6 months to ten years.

These three groups of children underwent anthropometric measurement, including: Height, Weight and Mid Upper Arm Circumference

Caregivers completed a questionnaire about:
- Household poverty
- Education and Health of the child
- Foods consumed regularly
- Feeding difficulties
- Receipt of aid
- All children needing services were referred as appropriate.
**Key Results:**

The prevalence of moderate/severe disability was 0.7%. Physical impairment was the most common type (42% of diagnoses), followed by intellectual impairment (22%). Epilepsy, hearing impairment and visual impairment were less common.

There was low uptake of specialist health and rehabilitation services among children with disabilities – only 15% of the children with disabilities had previously received rehabilitation.

Malnutrition was common among controls without disabilities: one quarter to one third of children without disabilities were malnourished. In comparison, children with disabilities were twice as likely to be malnourished, showing that malnutrition was very common in this group.

Only 62% of children with disabilities aged 5+ attended school, compared to 93% of children without disabilities. Children who did not go to school were not included in school feeding programmes.

Families of children with disabilities experience difficulties accessing aid.

**The central finding is that children with disabilities are more likely to be malnourished compared to those without.**

This is likely to be because:

- Children with disabilities were less likely to be included in the School Feeding Programme.
- Children with disabilities were twice as likely to report feeding difficulties.
- Disability as a consequence of malnutrition (e.g. rickets) was relatively common.
- Families with children with disabilities may have difficulties accessing aid or working.
- Children with disabilities may face neglect, or reduced access to care.

**Key Recommendations:**

1. Children with disabilities should be targeted in food aid and food assistance programmes as they are a key vulnerable group

2. Children with disabilities should be included in mainstream food assistance programmes. Steps should be taken to ensure that children with disabilities can access existing nutrition and food assistance programmes.

3. Efforts are needed to include children with disabilities in education. Explore models of ‘good practice’ from Kenya and the region.

4. Advocacy and communication is needed to increase knowledge which will promote mainstreaming of disability into programmes as well as encourage social change at all levels including community members.

5. Enhance partnerships with key stakeholders who advocate for disability to county government to increase availability of treatment and rehabilitative services for children with disabilities.

6. Establish simple and clear referral pathways for treatment and rehabilitation services for children with disabilities.

7. More research is needed to better understand the lives of children with disabilities. The mixed methods approach worked well.

**Conclusions:**

- Children with disabilities are particularly vulnerable to malnutrition.
- Efforts need to be made to include children with disabilities in food supplementation programmes. School based programmes may be inadequate to meet this need.
- Exclusion of children with disabilities from education is a major issue.

We would welcome any comments or feedback. Full report available: [http://disabilitycentre.lshtm.ac.uk/](http://disabilitycentre.lshtm.ac.uk/)

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