4.0 Study limitations

There are several limitations to this study. CD4 per cent data in children was available only upon admission to the hospital, and not on discharge. It would have been beneficial to have longitudinal CD4 per cent data to assess the impact of changing CD4 per cent on nutritional recovery and risk of mortality. While these data would have contributed to the impact of this research, the decision to limit the number of CD4 tests conducted was based on the high cost of testing and the lack of available treatment to respond to CD4 results. Although this study did not assess CD4 repeatedly, a subsequent study in Lusaka, Zambia has reported results of longitudinal CD4 testing in HIV-infected children with SAM, showing CD4 per cent decline despite nutritional rehabilitation (Hughes, et al., 2009).

Another way to have improved study quality would have been through a longer period of community follow-up after hospital discharge. There is very limited data available in the literature regarding long term outcomes for children with SAM after achieving nutritional recovery, in particular for those children with HIV. Although four months of follow-up does represent an important contribution to the literature, 12 months or more would have allowed for a better assessment of long term growth and survival. More published data on long term outcomes for recovered children with SAM in high HIV prevalence settings is needed.

Working within an MOH and NGO setting in a resource-limited setting presents challenges for data collection and quality. Some data for specific variables were missing, or of poor quality. For example, MUAC data were not collected on all children or mothers. Some morbidity data were collected, however it was incomplete and morbidity data can be inconclusive and difficult to interpret.

During this research there were interruptions in the supply of cotrimoxazole for prophylaxis and treatment in children with HIV and exposed to HIV. This is an important confounding variable as cotrimoxazole has been demonstrated to reduce mortality, and interruptions in supply were not well documented in this research.
The main limitation of the qualitative portion of this research was the lack of input from fathers and other male family members. Almost all of the carers were female, and almost all of those were mothers. Further research should be done to explore ways of increasing male involvement in care for children with severe acute malnutrition at the community and facility level. Another limitation of the study was that while REACH Trust qualitative research staff remained within the NRUs for 6 months conducting interviews and observations, some of the participants may have seen these REACH staff as being affiliated with Action Against Hunger. As Action Against Hunger played a role in providing support and resources to the NRU, some of the participants, staff in particular, may have been hesitant to give negative information. The REACH Trust staff attempted to mitigate this risk by being transparent about their role and affiliation. A final limitation of this study is that it was conducted at the facility level. This study only included participants who elected to come to the NRU, and did not gain the perspective of those carers of children with severe acute malnutrition who did not come to the NRU for services, and did not examine their pathways to care.