THESIS TITLE: **THE MANAGEMENT OF CHILDREN WITH SEVERE ACUTE MALNUTRITION IN THE NORTH WEST PROVINCE OF SOUTH AFRICA**

STUDENT NAME: **FAITH NANKASA MAMBULU (1174186)**

ABSTRACT

Background: Since the 1980s, the World Health Organization (WHO) has been developing guidelines to prevent and manage Severe Acute Malnutrition (SAM). However, globally, SAM remains a public health problem partly due to the poor implementation of WHO guidelines. In 2018, SAM accounted for approximately 17 million incidences of morbidity and was associated with nearly half of the 5.3 million under-five children deaths globally. In South Africa (SA), although SAM was associated with 31% of all audited 2016/2017 under-five children deaths, co-morbidities such as HIV and other infectious diseases contribute to the high prevalence of morbidity and mortality in children with SAM. Despite South Africa adopting the 2002 hospital level and 2005 primary healthcare (PHC) WHO guidelines, it still experiences high SAM related mortality. Studies on the implementation of SAM guidelines report problematic practices and factors leading to those practices at PHC and hospital levels while neglecting to focus on the referral and community health care services. This thesis set out to fill this gap by exploring how the adopted South African SAM guidelines inform health workers in district health system level to manage severely malnourished children. Specifically, I focused on SAM diagnosis, stabilisation before and during referral, inpatient management, and follow-up within a sub-district healthcare referral system of North West Province in South Africa.

Methods: Guided by a policy analysis triangle framework, a case study design was used to gain an in-depth understanding of the implementation of SAM guidelines in everyday contexts by uncovering boundaries between the phenomena (implementation

practices) and its context (underlying factors). Two sub-districts in the North West Province were selected for this study. The research was carried out at the following referral levels: sub-district hospitals (n=2), emergency service stations (n=2), PHC facilities (n=5) and Community Health Workers (CHWs) programmes (n=5). A series of three studies were conducted to address the objectives of this thesis. In the first study an appraisal of four SAM guidelines used or adapted to South African referral levels was conducted. The appraisal was complemented by five key informant interviews, which were carried out to elicit the comprehensiveness of SAM guidelines in SA. The second study explored SAM guidelines implementation and related factors within the referral system using primary data which was collected using in-depth interviews with 39 health workers at various levels of the referral system, a review of 40 patient records, appraisals of nine facilities using a standardised checklist and 10 practice observations. The third study focused on the role of CHWs in serving children with SAM using a review of 20 patient records and 15 in-depth interviews with CHWs and their supervisors. Thematic content analysis was used to analyse qualitative data from interviews, observations and appraisals. The quantitative data from patient records were analysed through aggregation to elicit guidelines administered per under-five children served at the facility level.

Results: This thesis found that the SAM guidelines used in South Africa had clear objectives to enhance their implementation adequately and inform PHC and hospital levels. However, the guidelines to inform processes during SAM referrals were unclear. The reviewed guidelines documents also lacked additional tools like monitoring/audit criteria to complement implementation. There were discrepancies in SAM diagnosis, non-compliance to SAM management guidelines, and varying referral mechanisms during implementation. Some of the factors that influenced these practices included

inadequate clinical skills among health workers, inconsistent supervision and monitoring, unavailability of sub-district specific referral policies and tools to support implementation. Suboptimal national policies to support the availability of therapeutic food for children with SAM and reliable referral transport also influenced SAM management practices. Regarding CHWs, they identified and referred SAM cases, but did not offer curative services of stabilisation before the referral and treatment of mild cases. Such limitations resulted from restrictive CHW policies, inadequate training, lack of supportive supervision and essential resources.

Conclusion: My thesis reveals that due to an emphasis on inpatient management over PHC management and community-based prevention, there was a lack of continuity of care for children with SAM within the sub-district healthcare referral system. The absence of referral policies specific to a sub-district and aligned to SAM were underlying contributors to the dysfunctional state of SAM referral systems. Referral policies should be revised to address the needs specific to sub-districts. For instance, the scope of community and PHC levels should aggressively emphasize SAM prevention by prioritising the treatment of mild cases and provision of continuous care supported by clear records of care given. The use of a policy analysis triangle framework was essential in understanding that the SAM guidelines implementation practices were influenced by the content, which informed the practices, implementers' attributes and contextual factors. The need to revise policy limitations on therapeutic food for children with SAM and curative guidelines of mild cases for CHWs was identified. The two aspects limited the capacity of lower referral levels to manage mild cases of SAM. The need for continuous training, provision of job aids and using aids to monitor implementation practices are recommended as potential solutions to limited health

workers' skills. In addition, creating supportive environments like continuously financing SAM management activities and auditing referrals systems to ensure ideal implementation practices could help improve SAM implementation gaps.