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Topic: Malnutrition treatment and prevention

Title: A CRITICAL PATH FOR DEVELOPING MILLET- ORANGE SWEETPOTATO ENRICHED PORRIDGES TO IMPROVE ACCESS TO NUTRIENT DENSE COMPLEMENTARY FOODS IN KASAMBYA–MUBENDE

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ABSTRACT

Childhood malnutrition is a big challenge in developing countries, mainly caused by consumption of complementary foods that contain inadequate nutrients. The purpose of this study was to come up with a critical path for developing millet-orange sweetpotato enriched porridges to improve access to nutrient dense complementary foods in Kasambya–Mubende.

A cross sectional study was conducted in the Kasambya sub county, 100 children (6-11 months) and 100 mothers/caregivers were selected using a multistage sampling method. Focus group discussions were used to collect data. In these groups, key informants were given structured questionnaires to determine individual child data on complementary feeding practices, dietary practices, dietary pattern and the knowledge related to local processing of and access to millet and sweetpotato complementary foods in Kasambya sub-county.

The frequency of breastfeeding was found to be below that recommended by WHO (2008b). Significant gaps identified were: the risks of introducing complementary foods too early or too late, low dietary diversity and low meal frequency. On the whole, the complementary feeding practices in Kasambya sub-county fell below the recommendations by WHO (2008b)

In trying to fill some of the nutrient gaps identified, three differently treated millets grains: Germinated, fermented and untreated (control) were milled into flours and then to each was added orange flesh sweetpotato flour in ratios of 3:1 as determined using nutrisurvey software. These were consequently prepared into porridges whose acceptability was later determined

The different treatments (germination and fermentation) increased the nutrient content such as proteins, iron of the millet flours and also significantly reduced the anti-nutrient

levels in the millet there by ensuring more access to nutrients by children 6-11 months. Also, sensory evaluation of the porridges indicated the highest consumer acceptability score for formulation M1 (malted millet and boiled orange sweetpotato) and M3 (untreated millet and boiled orange sweetpotato). These two were not significantly different at $p < 0.05$.

It is therefore, concluded that locally available food materials such as millets and orange sweetpotato can be formulated into suitable blends that contribute at least 1/3 of the daily requirements for identified nutrient gaps in complementary feeding in Kasambya sub-county.