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# THE PREVALENCE OF NEUROLOGICAL DISORDERS, INCLUDING THOSE OF A PALLIATIVE NATURE, IN PEOPLE AGED 70 YEARS AND OVER IN THE HAI DISTRICT OF NORTHERN TANZANIA

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**Introduction** There are few data on neurological disorder prevalence from developing countries, particularly sub-Saharan Africa (SSA), and none specific to the elderly despite a need highlighted by the World Health Organisation.

**Aims and Methods** We determined the prevalence of neurological disorders in those aged 70 years and over in a rural African community, described their sub-groups including those of a palliative nature, level of diagnosis and treatment and associated disability. We carried out an epidemiological survey in the Hai district demographic surveillance site (DSS) in northern Tanzania (n=161,119). 2232 participants (1/4 of the DSS 70+ population) were screened with a validated screening questionnaire with high sensitivity (87.8%) and specificity (94.9%). Positive responders underwent full neurological

assessment to confirm or refute the presence of a neurological diagnosis.

**Results** In 2232 participants, there were 384 neurological diagnoses amongst 349 people. The age adjusted prevalence (cases/1000 population) of neurological diagnoses (95% confidence intervals (CI)) was 168.9/1000 (153.4 to 184.5). Palliative neurological disorders included Parkinson's disease, progressive supra-nuclear palsy and motor neuron disease. 14.6% had been correctly diagnosed and 10.6% were on appropriate treatment. Neurological disorders were associated with disability.

**Conclusion** This is the first community-based neurological disorder prevalence study specifically in the elderly in SSA. It reveals a high prevalence of neurological morbidity, low diagnosis and treatment levels and high associated disability and demonstrates the contribution neurological morbidity makes to the non-communicable disease epidemic.