Is it time to stop being crude? Elderly mortality rates in a refugee camp in Maban County, South Sudan

Philipp du Cros[1], Caitlin Meredith[2], Kerry Thomson[2], Sandra Downing[2], Lauren Cooney[2], M. Ruby Siddiqui[1], Vanessa Cramond

[1]Médecins Sans Frontières (MSF), Manson Unit, London, UK; [2]MSF, Amsterdam, Netherlands

Email: philipp.ducros@london.msf.org

Background

Mortality is a key indicator in defining and monitoring the scale and severity of a complex humanitarian emergency. While collection of age-disaggregated data is advised in guidelines such as the Sphere handbook, in practice data are rarely disaggregated beyond the under-5s. Despite widespread use of prospective mortality surveillance systems in complex emergencies, there are few guidelines on their implementation and limited evidence of their value. In 2012, 68,000 refugees from Sudan settled in Maban County, South Sudan. MSF introduced a community based surveillance system in Jamam camp to monitor mortality and reported causes of death. Observation of a high proportion of deaths in older refugees led to the adaptation of the surveillance system to collect age-specific mortality data. Here we describe the implementation, outcomes and lessons learnt.

Methods

Data were collected weekly by exhaustive household survey by teams of trained outreach workers. Each team included two women, at least one English speaker and at least two refugees living in the camp who spoke the local languages. Household members were asked about number of occupants and any deaths. The following information was collected: number of structures, births, deaths and occupants in each structure aged <5, 5-49 and ≥50 years. For each death, information about age, sex, place of death and likely cause/major symptoms before death were obtained. Supervision included spot checks during data collection. Reported deaths were cross-checked with grave counts, interviews with village leaders and hospital data. Forms were reviewed daily for inconsistencies and results tallied by an epidemiologist. Data were entered into a database (Microsoft Excel 2007) and crude and age-disaggregated mortality rates calculated. This study met the criteria approved by the MSF Ethics Review Board for analysis of routinely collected programme data.

Results

On 15th July 2012, the population was 22,467 and the baseline crude mortality rate was 1.76/10,000 population/day, above the threshold considered for an emergency (1 per 10,000 per day). In the 6 weeks from 23rd July 2012 to 2nd September 2012 there were 79 deaths: 27 in <5, 26 in 5-49 and 26 in ≥50 year old groups. Mortality rates for these groups over the 6 weeks were 1.26/10,000 children/day (95% CI 0.83-1.83), 0.61/10,000 people/day (95% CI 0.40-0.89) and 3.45/10,000 people ≥50/day (95%CI 2.26-5.04), respectively. While mortality rates fluctuated on a weekly basis, the ≥50

rate was consistently higher than the <5 rate. The major cause of death reported in the ≥50 group was diarrhoea (52.4%). Limitations with the data and methodology will be discussed.

Discussion

Mortality rates for refugees ≥50 years were significantly higher than for children <5 years. Information on the most vulnerable groups in complex emergencies should be collected to help guide programme response and monitor trends following programmatic changes. Our analysis raises the question of whether MSF is collecting the right mortality data and whether programmatic responses to those ≥50 years are adequate.