Title: How Are Mobile Phones Being Utilised in Palliative Care Services in Sub-Saharan Africa? A Systematic Review and Visual Framework for Research Development

Authors: Matthew Allsop1, Richard Powell2, Eve Namisango3

Affiliation: 1Academic Unit of Palliative Care, University of Leeds, Leeds, United Kingdom; 2International Palliative Care Researcher, Nairobi, Kenya; 3African Palliative Care Association, Kampala, Uganda

Background/aims: Current coverage of palliative care (PC) services in sub-Saharan Africa (SSA) remains woefully inadequate, but harnessing mobile phone technology could be one approach to facilitating greater service coverage and engaging with patients with life-limiting progressive disease. A systematic literature review was conducted to identify the development and use of mobile phone interventions in PC services in SSA.

Methods: 13 electronic databases from 1990 to 2015 were searched with hand searching of journals and citation searching from included article reference lists. Articles were assessed against inclusion and exclusion criteria and study details extracted and tabulated by two researchers. Included articles underwent descriptive analysis and were mapped to a visual framework. The framework depicts 13 common approaches to mobile phone use in health services plotted against SSA palliative care delivery models.

Results: Of 1110 identified articles, a total of 5 were included. All interventions were at an early, piloting stage, with most designed to facilitate direct patient/caregiver-to-provider contact. Interventions were reported in PC services from Nigeria, Uganda, Kenya and Malawi. The application of mobile phone interventions is limited to the palliative treatment, guidance and coordination stages of services. No interventions are currently reported that support diagnosis and referral, or terminal and bereavement care.

Conclusions: Mobile phone interventions for PC in SSA are small in number and development is at an early stage. The visual framework identifies gaps in research and development of mobile phone approaches that respond to known health system constraints. Mobile phone network coverage continues to increase in SSA with extensive use of mobile phones by PC patients and their families. This is an opportune time to devise a structured, evidence-based approach to explore how mobile phones can enhance existing PC services in the region.