

Internet Appendix A48 Public Health

A48.1 Illustrative Pitch Template Example in early childhood development

Pitcher's Name	Nakazinga (Zina) Ndugwa	FoR category	Public Health	Date Completed	11 Nov 2015
(A) Working Title	Psycho-social Early Childhood Development (ECD) and public health: a health systems approach.				
(B) Basic Research Question	What are the public health system requirements to adequately address psycho-social ECD? What is the capacity of Uganda's health systems to meet these psycho-social ECD requirements?				
(C) Key paper(s)	Walker, S. P., Wachs, T. D., Grantham-McGregor, S., Black, M. M., Nelson, C. A., Huffman, S. L.,...Richter, L. (2011). Inequality in early childhood: risk and protective factors for early child development. <i>The Lancet</i> , 378(9799), 1325-1338. doi: 10.1016/S0140-6736(11)60555-2 Engle, P. L., Black, M. M., Behrman, J. R., Cabral de Mello, M., Gertler, P. J., Kapiriri, L., . . . Young, M. E. (2007). Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world. <i>The Lancet</i> , 369(9557), 229-242. doi: 10.1016/S0140-6736(07)60112-3 World Health Organization (WHO) & United Nations Children's Fund (UNICEF). (2012). <i>Care for Child Development: improving the care for young children</i> . Geneva, Switzerland.				
(D) Motivation/Puzzle	It has been estimated that 200 million children aged 0-5 years in Sub-Saharan Africa and South East Asia were not reaching their development potential; this was predicted to create a 20% loss of adult productivity during the later stages of life ¹ . What is concerning is 25% of children in Low and Middle Income Countries (LMICs) were exposed to psycho-social risk factors such as poor stimulation, lack of learning opportunities, parent unresponsiveness, and parental inability to understand infant behaviour ² . Each of these risk factors have been linked to caregiving practices, and can be prevented using simple public health initiatives like responsive parenting programs. Public healthcare systems have the capacity and potential to reach thousands of children between the ages of 0-5 years. As children and their caregivers access essential child health services, public healthcare systems have been identified as a key access point for ensuring caregivers are made aware of the best ways to support child development. So given the above, how can we maximise this to improve psycho-social ECD in LMICs? Accordingly the aim of this PhD is to explore how responsive and stimulative caregiving can be universally encouraged across an LMIC public healthcare system.				
THREE	Three core aspects of any empirical research project i.e. the "IDioTs" guide				
(E) Idea?	ECD has been recognised as a crucial part of human development trajectories and wellbeing. During the early years of life, responsive and stimulative caregiving interventions, have shown higher levels of cognitive functioning and, improved social behaviour, education outcomes and economic benefits amongst children and adults who received increased or greater amounts of stimulation from their caregivers. Using Uganda as an LMIC context, this PhD will explore how Uganda's public health systems can consolidate psycho-social ECD, through the support and scale up of stimulating and responsive caregiving practices at its Maternal and Child Health (MCH) services. The WHO/UNICEF Care for Child Development (CCD) intervention and the Health System Strengthening Building Blocks will be used to explore the governance and service delivery elements of MCH services and, articulate how governance, finance, service delivery, health workforce, health technology and health information capacities can be strengthened in efforts to improve psycho-social ECD.				
(F) Data?	The country research setting will be Uganda and the following data sources will be used; content analysis; key informant interviews; focus groups; and observational data collection at MCH services. A content analysis of the WHO/UNICEF CCD intervention against the six Health System Building Blocks will be used to define the minimum health systems requirements for psycho-social ECD and, to				

1. Grantham-McGergor S, Cheung YB, Cueto, S., , Glewwe P, Richter L, Strupp B. Development Potential in the first 5 years for children in developing countries. The International Child Development Steering Group. *The Lancet*. 2007;369(9555):60-70.

2. Walker SP, Wachs TD, Meeks Gardner J, Lozoff B, Wasserman GA, Pollitt E, et al. Child development: risk factors for adverse outcomes in developing countries. *The Lancet*. 2007;369(9556):145-57.

	develop a psycho-social ECD health systems framework. An additional content analysis of MCH government policies and strategies will be done to develop a narrative on Uganda's MCH and ECD priorities. To understand the public health governance and service delivery realities key informant interviews, focus groups and observational data collection will occur in Uganda. Using theoretical, purposive and venue based sampling, 20-60 MCH healthcare professionals will be recruited to partake in semi-structured interviews or focus groups. The observational data collection will occur at immunisation clinic and will include facility audits and observations of maternal and child healthcare interactions. This will involve physically observing and record healthcare facility resources and, the interactions between a health worker and mother/caregiver. The triangulation of data from the various sources will assist with the validity and representation of psycho-social ECD in Uganda's health system, however it may not guarantee completeness. Further research on maternal behaviours and multisector engagement will be required but this will be beyond the research scope.
(G) Tools?	The research frameworks and methodologies will incorporate qualitative tools of analysis. Thematic analysis and analytical memo writing will be used to conceptual code and categorise key themes, link and map codes and themes with key concepts and develop analytical reports. A qualitative thematic analysis will be employed to develop a psycho-social ECD framework tool using the WHO/UNICEF CCD intervention package and the Health Systems Strengthening Building Blocks. This will provide a comprehensive understanding of what key requirements are needed for health systems to adequately support the psycho-social elements of ECD. The framework will then be used to: 1) thematically code and analyse the data collected from the interviews, focus groups and observational data; 2) based on the findings assess Uganda's capabilities and capacities and; 3) develop recommendations. Data triangulation will use the content analysis, interviews, focus groups, and observations to provide a comprehensive picture of the governance and service delivery aspects of psycho- social ECD and public health in Uganda and ensure data validity.
TWO	Two key questions
(H) What's New?	The novelty of this research is making psycho-social ECD interventions equitably available to all children. This will be achieved by exploring how to apply current psycho-social ECD best practice into an LMIC country setting and, explicitly addressing what would be required to enable health systems to adequately support psycho-social development during the early years of life.
(I) So What?	The potential that caregiving and mother-child interactions have on improving psycho-social development and wellbeing needs to be maximised through public health systems. Using a holistic health systems approach to consolidate psycho-social ECD in LMICs health systems, can ensure it reaches millions of children and provides good foundations for psycho-social and socioeconomic development. Furthermore this can enable country or national gains with links to reductions in intergenerational poverty, improvements to socioeconomic outcomes and increased adult productivity.
ONE	One bottom line
(J) Contribution?	A LMIC health systems approach that supports the scale up of Care for Child Development, to enable every child to reach their psycho-social development potential.
(K) Other Considerations	Collaborations: Collaborations between Ugandan government agencies and health services will be vital to this research, accordingly stakeholder engagement and relationship building will be a crucial part of the data collection and analysis. Target Journal: It is anticipated that the research will be relevant to the WHO Bulletin (A grade) and Health Policy and Planning (B grade) journals. Risk: The nature of the research makes it a low risk because it will be dealing with experts and publicly available data. There is no foreseeable added risk above the risks of everyday living. There is currently limited literature addressing what is required to scale up psycho-social ECD in LMIC health systems and no direct completion has been identified. Scope: Whilst the scope is dynamic it's ideal and feasible, however key aspects will depend on participant and organisation involvement which can be unpredictable.