Reviewer's report

Title: Non physician clinicians within a managed clinical network may be an effective way to improve child health in Malawi

Version: 1 Date: 17 April 2015

Reviewer: Patricia Riley

Reviewer's report:

Major Compulsory Revisions:
• In response to the insufficient number of pediatric specialists in Malawi, the authors propose creating managed clinical networks (MCN) comprised of a team of pediatric specialists and one or more newly trained Bachelor of Science (BSc) Pediatric and Child Health Clinical Officers (CO), who will be responsible for one district. Their hypothesis is that the creation of MNC will improve healthcare for children in Malawi. While the manuscript provides a brief overview of Malawi’s health system, it is unclear if or how the proposed intervention has been presented, reviewed, approved to Malawi’s Ministry of Health (MOH). This should be further explained.
• Since testing the hypothesis requires that newly trained BSc COs be assigned to district and central hospitals lacking pediatric specialists, it is important (when planning the intervention) to have MOH commitments up front about assigning the COs to these designated facilities. The narrative does not provide this assurance.
• Since this proposed study will be evaluating Government of Malawi health services, it is important to know the authors’ process for research protocol review and approval by the local ethics review board. A revised submission should address these issues.
• It is unclear if the intervention includes training and/or CO mentoring and/or the establishment of the MCN networks. This is due to the narrative, which states: “…Funding has been secured to train sufficient personnel to staff all central and each district hospital Malawi with a team of physician specialists in the central hospitals and at last one specialist non physician clinician the district hospitals…” Who secured this funding - the Malawi Ministry of Health or the College of Medicine or the authors? This section should be rewritten more clearly.

Minor Essential Revisions:
• The pediatric health indicators to be assessed by the proposed research include “…common causes of <5 mortality, including acute respiratory infections, diarrheal disease, malaria and malnutrition and perinatal mortality…” before and after the introduction of the MCN. While data from WHO’s African Health Observatory concurs that the major causes of infant deaths are pneumonia (23%), underweight (22%), diarrhoeal diseases (18%) and malaria (14%), the report also notes that after the first year of life, infections from the communicable
childhood diseases of tetanus, whooping cough, diphtheria, poliomyelitis and measles are the major cause of death in children. Since these infections are largely preventable with effective adherence to the immunization schedules provided Maternal Child Health Clinics (which in Malawi, are largely staffed by nurses and midwives) the proposed intervention should describe how newly trained COs will engage with relevant, existing preventive services and health cadres, such as nurses and midwives.

Discretionary Revisions

• Other critical pediatric preventive services such as early infant diagnosis (EID) of HIV will not be measured as part of evaluating the MCN intervention. While Malawi along with much of sub-Saharan Africa has made considerable strides reducing HIV infection, the provision of antiretroviral therapy (ART) provision is not expanding as rapidly for children as for adults. In fact, provisional estimates show that, at the end of 2013, less than one quarter (23%, range 21–25%) of children (0–14 years) living with HIV in low- and middle-income countries were receiving ART in 2013 -- compared with more than one third (37%, range 35–39%) of adults living with HIV. Additionally EID was performed in less than half of HIV-exposed infants and is attributed for the low ART coverage among infants generally. Due to Malawi’s low percentage of providing virology testing for HIV-exposed infants within two months of birth, this country have been identified as a priority country in the Global Plan (to Fight AIDS, TB and Malaria). Thus, the authors should consider including prevention indicators, such as EID and viral load testing as a proxy indicators for the competency and quality of CO pediatric care.

• Malawi’s Pharmacy, Medicines, and Poisons Board is responsible for registration and licensing of pharmacy practitioners in the country. Prior to launching the intervention, it would be important to know that COs are considered qualified by the Board to dispense medicines in their management of pediatric patients.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.