

## Quality of nurse-prescribing for pain relief in Uganda

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## Introducing and integrating mid-level cadres in low or middle income countries: A multi-pillar approach for strengthening human resources for health

Elizabeth Arend<sup>1</sup>, Kathryn Utan<sup>1</sup>, John Capati<sup>2</sup>; <sup>1</sup>American International Health Alliance, Washington, DC, <sup>2</sup>American International Health Alliance, Pretoria, South Africa

**Program Purpose:** South Africa suffers from critical physician shortages, particularly in rural areas with high HIV prevalence. In 2008, South Africa's National Department of Health (NDOH) established a new mid-level cadre called Clinical Associates (ClinAs) to fill critical human resource gaps at rural district hospitals, enable task sharing, and increase efficiency while maintaining a high standard of care.

**Structure/Design:** To support the introduction and sustainable integration of ClinAs into South Africa's healthcare system, the American International Health Alliance (AIHA) applied its multi-pillar approach to the development of the ClinA cadre. AIHA worked closely with the NDOH and regulatory bodies, and established a professional association to represent the new profession. AIHA also worked closely with three pre-service training institutions — University of Pretoria, University of the Witwatersrand, and Walter Sisulu University — which AIHA partnered with three US universities with extensive experience training physician assistants, the US equivalent of ClinAs.

**Outcomes & Evaluation:** the South African universities have graduated 516 ClinAs to date, most of whom are now employed at rural district hospitals. Initial small-scale studies show ClinAs produce comparable clinical outcomes to doctors; the majority of ClinA graduates seek employment in rural areas; and ClinAs can save costs when appropriately utilized as part of an interdisciplinary clinical team.

**Going Forward:** ClinA feedback and small-scale research studies have identified several challenges to the successful introduction and integration of this new cadre to hospital clinical teams. These include an inadequate number of ClinA posts, and insufficient awareness of the new cadre. AIHA continues to work closely with national authorities and regulatory bodies to enhance the ClinA scope of practice, and support the new Professional Association of Clinical Associates of South Africa to raise awareness and advocate for the profession.

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## Transitioning into democracy: what contextual barriers and facilitators do auxiliary midwives perceive in Myanmar's first point-of-care mHealth project?

R. van der Wal<sup>1,2</sup>, M. Hatem<sup>1,3</sup>, Z.K.K. Lynn<sup>4</sup>, C. Zarowsky<sup>1,2</sup>; <sup>1</sup>ESPUM (École de santé publique de l'Université de Montréal) Montreal, Canada, <sup>2</sup>CRCHUM (Centre de Recherche du Centre

Hospitalier de l'Université de Montréal), Montreal, Canada, <sup>3</sup>CRCHUSJ (Centre de Recherche Hospitalier Universitaire de Saint Justine), Montreal, Canada, <sup>4</sup>PU-AMI (Première Urgence –Aide Médicale Internationale), Yangon, Myanmar

**Background:** The lack of midwives in Myanmar led to shifting of pre- and postnatal care tasks to auxiliary midwives (AMWs). AMWs receive limited training and supportive supervision, negatively impacting the quality of pre-/postnatal services. To improve performance, behavioral theories suggest that algorithm-based clinical decision-support modeling increase quality of care. An NGO uses this rationale to develop a pre-/postnatal Smartphone application for AMWs, which is piloted in South Yangon District (2014), but it wants to know what barriers and facilitators AMWs perceive in this context affected by 50 years of military rule.

**Methods:** In a qualitative explorative design, perceptions of all AMWs participating in the pilot (n=20) are explored through semi-structured interviews (19) and focus groups (3), and analyzed with thematic analysis and Nvivo. All AMWs gave informed consent. Myanmar's Ethical Review Committee and l'Université de Montréal granted ethics approval.

**Findings:** Technical barriers are found in problems with the application and in design flaws. Internet network problems represent the main environmental barrier. Lack of electricity does not affect phone charging. Dramatically reduced communication costs lead to the perception that electronic reporting is cheaper than paper. Social barriers are found in lack of supervisor support to use the application for supportive supervision. AMWs perceive contextual facilitators in organizational support provided by the NGO (technical, material, and financial support, and training), and in social support, with patients supporting the use of the application. Due to socioeconomic improvements, villagers increasingly own cellular phones. Myanmar's Ministry of Health announcing that health registration/reporting will be electronic in the future is considered an important political facilitator.

**Interpretation:** Unexpected socioeconomic and political facilitators in the implementation context of a transitioning Myanmar positively affect its first point-of-care mHealth project. Internet network problems remain the main barrier. Technical problems require continued support and training. The lack of supervisor support suggests that increased efforts to include supervisory echelons in the project are needed. Despite the barriers, AMWs embrace the pre-/postnatal application, as they believe it to be the future norm and in their community's best interest. Results of this study inform the project's further scale-out.

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## Diaspora-driven efforts to build biomedical research capacity in low and middle-income countries: A pilot program in India

V. Varadaraj<sup>1</sup>, A. Ranjit<sup>2</sup>, J. Nwadiuko<sup>1</sup>, J. Canner<sup>1</sup>, E. Schneider<sup>2</sup>, M. Diener-West<sup>3</sup>, N. Nagarajan<sup>1</sup>; <sup>1</sup>Johns Hopkins University School of Medicine, Baltimore, MD, USA, <sup>2</sup>Center for Surgery and Public Health – Brigham and Women's Hospital, Boston, MA, USA, <sup>3</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA