



# Non-physician Clinicians in Sub-Saharan Africa and the Evolving Role of Physicians

Nir Eyal<sup>1\*</sup>, Corrado Cancedda<sup>2</sup>, Patrick Kyamanywa<sup>3</sup>, Samia A. Hurst<sup>4</sup>



### Abstract

Responding to critical shortages of physicians, most sub-Saharan countries have scaled up training of non-physician clinicians (NPCs), resulting in a gradual but decisive shift to NPCs as the cornerstone of healthcare delivery. This development should unfold in parallel with strategic rethinking about the role of physicians and with innovations in physician education and in-service training. In important ways, a growing number of NPCs only renders physicians more necessary – for example, as specialized healthcare providers and as leaders, managers, mentors, and public health administrators. Physicians in sub-Saharan Africa ought to be trained in all of these capacities. This evolution in the role of physicians may also help address known challenges to the successful integration of NPCs in the health system.

**Keywords:** Physician Assistants, Professional Delegation, Human Resources for Health, Rural Health Services, Developing Countries, Emigration and Immigration, Delivery of Healthcare, Medical Education, Ethics

**Copyright:** © 2016 by Kerman University of Medical Sciences

**Citation:** Eyal N, Cancedda C, Kyamanywa P, Hurst SA. Non-physician clinicians in sub-Saharan Africa and the evolving role of physicians. *Int J Health Policy Manag.* 2016;5(3):149–153. doi:10.15171/ijhpm.2015.215

### Article History:

Received: 7 November 2015

Accepted: 24 December 2015

ePublished: 30 December 2015

### \*Correspondence to:

Nir Eyal

Email: neyal@hsph.harvard.edu

A decade ago, sub-Saharan Africa accounted for 24% of the global disease burden, but was served by only four percent of the global health workforce.<sup>1</sup> This shortage has led the World Health Organization (WHO) to support the training of new cadres of health workers, including non-physician clinicians (NPCs).<sup>2</sup> In different sub-Saharan countries, NPCs are known as clinical officers, health officers, physician assistants, nurse practitioners, nurse clinicians, or associate clinicians. We shall use the definition of NPCs as health workers who have fewer clinical skills than physicians but more than nurses.<sup>3</sup> Since this definition is based on skills not on formal training, nurses with added training for or rich experience in delegated HIV care may also count as NPCs; so may physicians' assistants or surgical clinical officers with shorter training than nurses, if they have "more" clinical skills. Despite shorter training than that of physicians, NPCs are capable of many of the diagnostic and therapeutic tasks of physicians. In many areas, they already manage regular clinic visits, Caesarian sections, hernias, closed fracture care, and amputations.<sup>2-7</sup>

This development in NPC deployment should unfold in parallel with strategic rethinking about the role of physicians and with critical innovations in physician education and in-service training. Many sub-Saharan countries have recently scaled up NPC training.<sup>3,7-11</sup> In 2007, the reported number of NPCs already equaled or exceeded that of physicians in nine sub-Saharan countries.<sup>3</sup> In 2009, 84% and 92% of cesarean sections, obstetric hysterectomies, and laparotomies for ectopic pregnancy in Tanzania and Mozambique (respectively) were already performed by NPCs.<sup>12</sup> In 2010, NPCs were recognized in 47 of the 54 African countries.<sup>13</sup> In 2014, researchers were unable to find a single Ethiopian health facility that had not yet shifted any HIV-related clinical task to

NPCs.<sup>14</sup> Currently, many countries in the region have human resources for health (HRH) strategic plans that commit to NPC training, for example, in the complex treatment of multi-drug resistant tuberculosis.<sup>15,16</sup> This may signal that NPCs' deployment has finally gained full acceptance by local health sector leaders.

The combined effect of the physician and nursing brain drain to urban, for-profit, and international settings and the boost in NPC training is a quiet but compelling transformation in the composition of sub-Saharan Africa's health workforce. In the new health system, NPCs perform a significant portion of diagnostic and therapeutic tasks traditionally performed by physicians at the primary and secondary health facility level. The importance of this transformation in health workforce composition cannot be overstated. Health services to some of the world's most vulnerable populations are increasingly delivered by NPCs, in specialty areas as diverse as HIV prevention and treatment, obstetrics care, non-communicable diseases, and even surgery.

WHO recommendations and a growing body of research concur that NPCs can achieve impressive patient outcomes, often as good as physicians.<sup>2,4-7,14,17</sup> Training NPCs is less time-consuming and less expensive than training physicians, while employing NPCs costs less than employing physicians. And crucially, NPCs tend to remain in rural and underserved settings longer and in greater numbers than physicians.<sup>18</sup> Most HRH experts agree, however, that several important challenges must be addressed to maximize the effectiveness of NPCs in the new health system, including:

1. Paucity of standardized decision-making algorithms and simplified drug regimens (which NPCs typically need more than physicians do) and of curricula and teaching materials tailored to NPCs,<sup>11,12,19</sup>