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VIEWPOINT

Continuing Professional Development in Low-Resource Settings: Haiti as Example

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CONTINUING PROFESSIONAL DEVELOPMENT: A VITAL SIGN FOR HEALTH SYSTEMS

Continuing medical education, increasingly termed *continuing professional development* (CPD), constitutes an important aspect of the educational life for any health care practitioner. In many high-resource countries, health care professions have licensure or certification requirements for ongoing CPD, increasing the odds that most providers will engage in these activities.[1] Due to these requirements and the attendant well-financed interest from health care professionals, there exist a wealth of options for CPD within high-resource countries, touching on all aspects of medicine and provided in a huge range of formats.[2]

Contrast this with physicians working in low-resource settings. Looking specifically at doctors, in most low-income countries medical licensure is permanent,[3] without obligation to demonstrate ongoing education or competence. More importantly, for many providers working in low-resource settings, the poverty of their surroundings is matched by a poverty of information. Those working in rural or nonacademic settings frequently face logistical barriers that render regular access to libraries and the Internet challenging, if not impossible, reducing decision support for a group of providers who often are already lacking in knowledge.[4] Even for those with access to contemporary resources, there exist few CPD materials that fully address the needs of the low-resource settings where they work.[5] The majority of textbooks and online resources focus on diseases and presentations most prevalent within the high-resource countries where they are predominantly authored and published, are written in the languages of those countries, and propose treatment plans that assume access to a high-resource systems. These materials typically lack discussions of diseases found largely within low-resource settings, or approaches to treatments where health resources are limited. As a result, providers in low-resource settings either do without educational materials, or must work with educational materials poorly adapted to their patients and to the realities of their practice environment. Recognizing the vital role that access to relevant evidence-based information plays in improving health systems, our colleagues working in these settings have appropriately called for improvements to be made, including more research into what will work best.[6]

We believe that investment in CPD within low-resource settings represents is an efficient way to potentially improve health outcomes via improving the quality of existing providers, in line with present efforts to develop access to pertinent information and human resources for health.[5,7] Although our focus is on physicians, we believe that these arguments apply equally to other vital health care providers such as nurses, pharmacists, midwives, midlevel providers, and community health workers.

HAITI AS AN EXAMPLE

Our communal experiences working in a range of low-resource settings have repeatedly demonstrated

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the dearth of accessible and pertinent educational materials for the physicians who work there; we look to Haiti as a specific example.

In a study published in this issue of *Annals of Global Health* by Nádas et al, 62 young Haitian physicians performing their postgraduate social service year were surveyed about the educational resources available to them. These physicians worked within a range of clinics and hospitals, which were largely public, although some were private or NGO-based as well. Less than half of their places of employment had computers, less than one-third had educational conferences, and less than one-fifth had a medical library. A majority of the physicians who did have access to a library reported shortcomings in the quality of materials and hours of access. Of note, approximately 70% of respondents did have a personal computer, although access to the Internet was lower.

In terms of present CPD policy within Haiti, the Haitian Medical Association heads an ongoing initiative to develop a functional system of CPD for the doctors of Haiti. Presently, there exist no official programs for CPD, only efforts through individual hospitals aimed solely at their staff, and there is no CPD requirement for maintenance of licensure. The leadership of the Haitian Medical Association believes that this deficiency worsens clinical care, and therefore it is working to develop and deliver appropriate educational materials for Haiti's doctors throughout their postgraduate careers. Starting a CPD requirement de novo is a complicated process, requiring a complete list of all presently active physicians, widespread access to appropriately certified CPD materials or courses, and an organizing body capable of registering which doctors have taken what courses, as well as a system to penalize those who fail to meet requirements. As such, this is anticipated to take some time to develop.

Although the Haitian Medical Association continues the efforts described here, in conjunction with a range of other Haitian groups active in medical education, there are parallel efforts from NGOs working within Haiti around issues of CPD. Physicians for Haiti (P4H) is a partner of Haitian health care institutions with the goal of developing customized CPD resources and opportunities for Haitian staff physicians and nurses. At present, P4H has a range of CPD offerings for nurses and physicians at multiple Haitian partner sites that use several different formats depending on site requests: in-person teaching by visiting professors, especially for physical skills; remote education via online modules for a smaller range of requested topics; and educational resource development for Haitian faculty to impart them with the materials required to teach their learners or peers.

Various Haitian hospitals and NGOs active in Haiti provide limited CPD as an adjunct to provision of clinical services (ie, training their staff further), but to our knowledge only one other focuses heavily on CPD, the Haiti Medical Education Project. This group predominantly works through peer-led curriculum development on a policy level with Haitian leaders and via remote learning through electronic lecture delivery.

P4H has found a strong interest in CPD from our Haitian partners, with insufficient time being the predominant barrier that prevents leadership at partner sites from participating in the amount of education they desire. We hope to help bridge this gap by providing education directly, or by facilitating education through the provision of coproduced educational materials. Ultimately, we view this work as a temporizing measure. We aim to transition these efforts in the coming decade to Haitian-led Haitian organizations once they have developed their capacity to orchestrate a national CPD system.

TOWARD GLOBAL CONTINUING PROFESSIONAL DEVELOPMENT

Our experiences leave us no doubt that ample demand exists for improved access to CPD in low-resource settings absent licensure requirements. The act of perpetually pursuing knowledge reflects a physician's desire to provide the best possible care for his or her patients, and this drive is seen in dedicated health professionals throughout the world, regardless of setting.

The ability of CPD to improve knowledge and ultimately impact patient outcomes remains poorly researched in low-resource settings. As such, we must cautiously invoke findings from high-resource settings, which demonstrate that in-person, interactive small-group presentations with a longitudinal component have the largest effect on patient care and outcomes. Indeed, such initiatives would likely have the best outcome, although they also necessitate a high cost in time and money.[8] However, as many practitioners in resource-constrained locations work without the full array of current reference materials that are routinely used by physicians in high-income countries, we hypothesize that ready access to appropriate information alone might be sufficient to improve clinical care in some cases.

Table 1. Country versus Multilateral Roles in Developing Universal CPD

Country	Multilateral
Surveys of providers for common clinical questions without clear guidelines where education is desired	Developing evidence-based guidelines and secondary references for a wide range of conditions commonly treated in low-resource settings
Studies of clinician knowledge seeking frequently found gaps in information	Assistance with necessary infrastructure to disseminate CPD resources, from websites to printing to focused in-person educational programs
Adapting multilateral or high-resource setting educational maktterials to country or regional specifics	Programs supporting international collaborations between low- and high-resource settings for educational ventures, including development of national CPD programs
Development of local infrastructure for CPD, including an educator corps and recurrent CPD events	Support for trials on the impact of various information interventions, involving educator-researchers from both high- and low-resource settings
Contribution to regional and multilateral networks for support of CPD	

CPD, continuing professional development.

This is supported by data demonstrating deficits of knowledge as a factor in substandard care within some low-resource locations,[9-11] and it seems very reasonable that access to some level of accurate health information is necessary to improve health outcomes. We believe that universal access to effective CPD would likely improve patient outcomes, but also advocate strongly for increased research specifically within a range of low-resource settings to explore this question and to investigate which CPD approaches work best.

What might a global movement toward universal CPD look like? A well-designed CPD system within a low-resource country would include a wide range of media on various topics, would mobilize teachers from within each country, and would make accessible hard copy materials for those without Internet access. It would emphasize making pertinent materials easily accessible at low or no cost, and would encourage health care professionals to engage in ongoing education, potentially via mandates linked to licensure or certification. Importantly, it would use country-specific monitoring, evaluation, and research to refine the CPD program. We believe that these are reasonable, achievable and necessary goals for most countries. Further consideration of the required steps is facilitated by comparing global CPD from the country perspective, as well as the multilateral perspective (Table 1).

On a country level, our experience within Haiti has been that CPD needs vary widely between institutions and providers. Country-specific responses will similarly span a range, from ministry-sponsored programs in countries where finances and local knowledge allow, to more ad hoc programs combining efforts between local and international partners where resources are fewer. We have seen in Haiti that the efforts of skilled volunteers from the global medical community can be harnessed to provide a limited number of practitioners with in-person small-group–based CPD opportunities, in keeping with the best-support approaches to CPD.[8] The eventual goal in all settings should be to have a cohort of trained and financially supported local practitioners who can run such teachings, as well as monitoring and evaluation systems to assess the actual effects of CPD programs. When in-person CPD is not feasible, the alternative of computer-based educational tools may provide a cost-effective, flexible experience that retains interaction and allows for feedback and central monitoring. Most importantly, local- or country-level organizations should provide the clinical questions that they find most pressing; if they lack the resources to compile educational materials to address those questions, then assistance from international programs could be of use.

This leads to the multilateral level, where the increasing ubiquity of the Internet provides an excellent vehicle for the dissemination of CPD materials. A range of approaches can be envisioned, from databases of CPD presentations for use by local educators, to interactive modules for individual clinicians, to point-of-care decision support tools.

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This last approach would build off the success of high-resource setting clinical knowledge systems such as Dynamed and UpToDate—websites that provide evidence-based summaries of approaches to a wide array of diseases for use at the point of care. Limited data suggests that access to these tools may improve health outcomes in high-resource locations.[12] Similar resources could be developed that better reflect the diseases, diagnostics, and therapeutics of low-resource settings. These could subsequently be translated into appropriate languages and made freely accessible online, with physical dissemination via local institutions for those lacking Internet access. Further research would be needed to improve the evidence base for the optimal management of many disease conditions in low-resource settings. Existing examples of secondary reference materials supported by a robust evidence base that include a range of responses based on available clinical resources include the Partners in Health guide on noncommunicable diseases and the guidelines from the International Diabetes Federation.[13,14]

The output of these efforts would move health information access initiatives from a system of freely available unsorted information, such as the World Health Organization's present Health InterNetwork Access to Research in Health Programme, toward structured, evidence-based, location-appropriate resources that allow for more facile point-of-care use in educational and clinical settings alike. Perhaps the most important outcome of this type of development would be the recognition by local clinicians of these international or regional websites as reputable sources of secondary reference materials and guidelines.

Working toward universal CPD comprises an integral part of the overall movement for human resources for health, as an effort to ensure that trained providers are being supported as effectively as possible. Ultimately, this is an issue of equity in access to information. Health care practitioners who seek the necessary information to provide the best possible care for their patients should be able find it without undue cost or effort, regardless of where in the world they practice.[15,16]

CONCLUSION

Low-resource settings frequently lack ready access to CPD, and the limited data available suggest that patient care may suffer from this absence of information. Haiti provides an example of a country lacking present access to CPD materials with multiple initiatives aimed at developing a functional CPD system. A combination of country and multilateral level efforts will be needed to work towards universal access for health care providers to CPD, which is a prerequisite for fully functional health care systems.

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