

USAMC leadership then evaluates the relative value of a partnership and subsequently develop long-term, shared program goals assuring program ownership, communication and defined outcomes for all parties.

Outcome & Evaluation: The partnership assessment process has allowed the USAMC to develop strategic, long-term, institutional relationships based on similar approach and goals in countries of operation and to disengage from potential partnerships that bring excessive risk and minimal value add. As a result, long-term institutional relationships have been evaluated in Angola, Botswana, Colombia, Lesotho, Malawi, Papua New Guinea, Romania, Swaziland, Tanzania and Uganda.

Going Forward: The partnership assessment model is a key tool for future global health program start-ups or expansions. Challenges include ensuring that partnerships are long-term focused with sustainable institutions rather than with individuals who may change positions or institutions; alignment and coordination of local and international stakeholders; human resource gaps and; identification of a sustained funding source.

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Policy and Economic Considerations for the Provision of Global Public Goods: Biomedical Research and Development

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Background: The concept of global public goods represents a framework for organizing and financing international cooperation in global health research and development (R&D). Advances in scientific and clinical knowledge produced by biomedical R&D can be considered public goods insofar as they can be used repeatedly (non-rival consumption) and it is difficult or costly to exclude non-payers from gaining access (non-excludable). This paper considers the public good characteristics of biomedical R&D in global health and describes the theoretical and observed factors in the allocation R&D funding by public, private, and philanthropic sources.

Methods: We first conducted a literature review on factors theoretically associated with funding for early-stage biomedical research, including the expected correlates of funding levels for basic research, pre-clinical studies, and Phase I – IV clinical trials. To explore possible relationships between theorized drivers of R&D funding and actual funding flows, we analyzed evidence on how public, private, and philanthropic investments are affected by the public good characteristics of four high-burden diseases that disproportionately affect low- and middle-income countries: malaria, tuberculosis, hepatitis C, and soil-transmitted helminthiasis.

Findings: Multiple factors influence R&D investment by public, private and philanthropic funders, including disease pathology and epidemiology, the current intervention landscape, policy and regulatory environment, and current and projected market conditions.

Private sector investments are theorized to be primarily determined by opportunities for positive financial returns, while public and philanthropic investments may be motivated by a variety of social returns. We examine the specific funding decision factors identified in the literature for each of the four selected diseases.

Interpretation: Factors influencing the allocation of funds for biomedical R&D vary by disease, resulting in uneven funding across diseases. Due to issues of transparency and a lack of systematically collected data regarding R&D investments for diseases in low- and middle-income countries, especially from the private sector, these factors can be difficult to observe and measure. Furthermore, persistent data gaps can affect both aggregate investment and cooperative agreements.

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Barriers that Nurse Practitioners Face as Primary Care Providers in the United States

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Program/Project Purpose: There have long been concerns in the United States about shortages of primary care physicians. Expansion of coverage under the Affordable Care Act, along with increased specialization, and the growing and aging patient populations has increased the demand for care. Concerns about shortage have led to a variety of policy proposals, one of which would enhance the role of nurse practitioners in primary care. Past studies have found no difference in health status or satisfaction between patients treated by physicians and those treated by nurse practitioners. However, the role of nurse practitioners in primary care is still severely limited.

Structure/Method/Design: This study explores the barriers preventing nurse practitioners from taking on greater roles as primary care providers in the U.S. Through an online questionnaire and follow-up phone interviews, information was obtained from 39 nurse practitioners in the Lehigh Valley Region.

Outcome & Evaluation: The vast majority agreed that their role could and should be expanded, but they cited a number of barriers, including state laws, reimbursement rates, and patient perceptions. Of the 39 nurse practitioners, 30 of them reported that the main barrier they faced was physician opposition, including responses such as: physicians' fear of unqualified nurse practitioners that may overstep their boundaries (48.8%), physicians' need for control (22%), outdated laws (9.8%), the A.M.A. (9.8%), lobbyists (4.9%), and physicians' emphasis on the importance of their occupation (4.9%).

Going Forward: In the future, it will be important to expand beyond this small sample into a larger sample across the U.S. to better identify what barriers nurse practitioners face across states, especially because the role of nurse practitioners varies from state to state. Previous studies have shown that nurse practitioners obtain similar health outcomes as physicians, and it will be important,

moving forward, to identify the factors that cause good health outcomes in order to work towards positive policy changes.

While some nurse practitioners surveyed have good working relationships with individual physicians, most see medical dominance as a barrier to their larger role in primary care.

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Participatory Capacity Building Strategies for Improving Quality of Child Care Centers in Thailand

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Background: Most of a child's brain development takes place in the child's first 5 years. Children in child care centers (CCC) not meeting quality standards are at risk of transmitting communicable diseases that might impede development.

Methods: This study was a one group pre-posttest design to study the effect of capacity building of administrators and heads of CCC managed by local administrative organizations (LAOs) in Chonburi Province, Thailand on increased skills, improved compliance with quality standards and health outcomes. 6 local administrators (LA) and 48 CCC heads were trained regarding management skills using a participatory capacity building approach adapted from the UNDP. The program consisted of 3 sequential workshops conducted over 9 months to increase capacity relating to: 1) knowledge of quality standards developed by the Department of Health (DOH) 2) implementation and assurance and 3) evaluation. Before and after the program, data was collected on 2 outcomes of CCC management: achievement of the quality standard and the period prevalence of 5 diseases required to be controlled among CCCs.

Findings: Research results indicated that overall knowledge level of LAs and CCC heads improved ($p = .027$ and <0.001), respectively. The heads of CCC increased managerial skills significantly ($p <0.001$), though the managerial skills of LAs did not show significant change. The percentage of CCCs achieving quality standards increased significantly ($p <0.001$). However, there was no difference in disease prevalence between CCCs that met or did not meet the quality standards before or after the capacity building program ($p = .657$ and $.688$, respectively) because many other factors affecting disease were not controlled for in this study.

Interpretation: Achieving quality standards is an indication of a well-run CCC with competent staff and this should clearly be a minimum requirement for organizations taking care of children. Our conclusion is that a participatory approach to capacity building constitutes a successful way of building staff capacity. In the future, these approaches should be integrated in a capacity building program before the LAs and heads start their work. Parents need to be key stakeholders to ensure that CCCs are well managed and they adhere to quality standards.

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Pre-Health Advisor Perspectives on Undergraduate Short-Term Global Health Experiences

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Background: The ethics and safety of short-term experiences in global health (STEGH) are of primary concern. With a proliferation of global health degrees and programs encouraging student global mobility, it is increasingly important to characterize STEGHs. Best practices and patient safety considerations suggest that pre-health students should not be conducting hands-on patient care while abroad. It is observed that pre-health students are often motivated to engage in STEGH, in part, because it provides experiences perceived to be beneficial when applying to professional schools. While multiple anecdotes capture concerns around these issues, data to corroborate such anecdotes is lacking. This study aims to characterize the perceptions of pre-health advisors, who have a unique visibility of student activities abroad, with regard to undergraduate STEGHs.

Methods: An online survey was distributed using convenience and snowball sampling. Analysis was done using simple statistics and manual coding for qualitative aspects. Qualitative analysis was done using both a priori and emergent themes. Coding was conducted repeatedly by independent coders to ensure inter-coder reliability.

Findings: 193 pre-health advisors responded, representing over 67 universities and colleges. 46% were advising for 10+ years. 77% of advisors reported they had encountered students going abroad to seek hands-on patient care experience. 81% of advisors reported they had encountered students seeking global health experiences in order to bolster their medical or health professions school applications. 83% of advisors reported they are somewhat or very concerned about pre-health students getting hands-on patient care experience abroad. 10% of advisors reported they are aware of medical schools that give positive favor to students who have hands-on patient care experience abroad. 35% of advisors reported they felt very equipped to advise on international experiences. Qualitative data analysis is currently underway and initial themes include concerns regarding the scruples of organizations facilitating experiences, concerns about the impacts that pre-health students have on local patients and themselves, and concern with regard to supervisors in the host clinical setting.

Interpretation: This study provides evidence that there are great concerns within the academic community about activities undertaken by pre-health students during STEGHs, and that these are often undertaken by students to bolster health professions school applications.

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Secondhand Smoke (SHS) Exposure and Perceived Health Risks of Tobacco Use among Urban Residents in Five Cities in China

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