

mental, and social health by all peoples. At the request of the World Health Assembly, the WHO, with the World Organization for Animal Health (OIE) and the Food and Agriculture Organization (FAO) (tripartite), developed a Global Action Plan (GAP) adopted in 2015 to ensure successful treatment and prevention of infectious diseases with effective, safe, and quality medicines accessible to all. Cases of AMR, guidelines established by the tripartite, and actions taken by the international community were investigated to assess the progress made in preventing the progression of AMR.

Structure/Method/Design: Efforts to combat AMR through garnering collective action across countries and sectors were supported in high-level meetings at the UN, preparation of reports, and analysis on publicly available materials on AMR.

Outcome & Evaluation: Due to factors such as the misuse and disposal of antibiotics for human illnesses, use of antibiotics in livestock as growth promoters and medicine to prevent illness, and poor hygiene practices in medical facilities, drugs against malaria and tuberculosis, among others, are becoming increasingly ineffective. Addressing AMR is crucial not only in the realization of SDG 3 on health and well-being, but all SDGs, particularly those concerning maternal and child health, universal health coverage, poverty, and food security. The WHO and other institutions have published detailed guidelines on how states, communities, and individuals can prevent the spread of AMR using a One Health multisectoral approach. Following adoption of the GAP in 2015, member states have been urged to have in place national action plans on AMR by 2017.

Going Forward: With continued efforts to improve health infrastructure, policies, and cooperation in the international community, the fundamental human right of health and well-being can be better realized by populations across the globe.

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Abstract #: 2.003_GOV

Collective Action among Non-Governmental Organizations Working in Maternal and Child Health in Haiti

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Background: Non-governmental organizations (NGOs) provide much needed social services to the people of Haiti, where abject poverty and inadequate infrastructure means the government relies heavily on NGOs to provide such services. Haiti has the second highest number of NGOs per capita in the world, second only to India. Despite the high number of NGOs, Haiti still experiences dismal health outcomes. Global public goods (such as health) are best provided when people and entities work together. It is therefore important to study collective action/cooperation among NGOs in order to gain a deeper understanding of the barriers to collective action/cooperation and how these barriers might be addressed.

Methods: This research involved interviewing a total of 18 managers or executives of NGOs working in maternal and child health in Haiti. The interview protocol consisted of 24 semi-structured questions. Results were analyzed using thematic analysis.

Findings: Four broad themes emerged:

1) Cooperation is beneficial

2) Cooperation is difficult

3) There is a need to cooperate in Haiti

4) There are consequences to not cooperating

All participants agreed that there was a strong need to cooperate in Haiti, but the majority felt that cooperation was not occurring due to resource constraints, competition/egos, and infrastructural issues. The majority of participants felt that cooperation should be required by donor agencies or by the Haitian government. Consequences to not cooperating included fragmentation, incomplete information, resource misallocation and inefficiencies and duplication of services. One broad, potentially transformative collective action network emerged that could have positive impacts on maternal and child health throughout Haiti.

Interpretation: Broader implications of this research point to the need to design effective incentives to entice organizations to work together. Donors perhaps need to require collective action as a funding contingency. The need for collective action in global health is only becoming more urgent, and this research helps to outline some of the problems inherent in collective action among NGOs, as well as sheds light on policy considerations that should be addressed.

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An Approach to Partnership Assessment for Global Health in Resource-limited Settings

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Program/Project Purpose: Designing global health programs and determining the appropriate partners to engage can be difficult. Program/project implementers often have limited time, funding and human resources to implement their project, making it necessary and convenient to partner with local, in-country or external partners to leverage resources.

While partnerships can be mutually beneficial, if not properly assessed they can cause financial, reputational or legal risks that could be detrimental to the implementation of a project/program. To mitigate these risks, a U.S. Academic Medical Center (USAMC) designed a partnership assessment tool to evaluate potential partnership strengths and weaknesses.

Structure/Method/Design: To determine partnership feasibility, areas of assessment include: organizational alignment, existing partner program capacity and needs, USAMC resources and capabilities, and logistical complexity for implementation. Partners self-select by reaching out to the USAMC and via USAMC's existing in-country programs. USAMC staff with necessary expertise and experience conduct the partnership assessment.

Partnership assessments are carried out via desktop review of the potential partner and meetings with potential partners both in the U.S. and in-country. To collaboratively test program feasibility, USAMC faculty, trainees and staff also work shoulder-to-shoulder with the potential partner team to determine gaps and opportunities.

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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Abstract #: 2.005_GOV

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,