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GLOBAL HEALTH GOVERNANCE IS AN OPEN ACCESS, PEER-REVIEWED, ONLINE JOURNAL THAT PROVIDES A PLATFORM FOR ACADEMICS AND PRACTITIONERS TO EXPLORE GLOBAL HEALTH ISSUES AND THEIR IMPLICATIONS FOR GOVERNANCE AND SECURITY AT NATIONAL AND INTERNATIONAL LEVELS.

THE JOURNAL PROVIDES INTERDISCIPLINARY ANALYSES AND A VIGOROUS EXCHANGE OF PERSPECTIVES THAT ARE ESSENTIAL TO THE UNDERSTANDING OF THE NATURE OF GLOBAL HEALTH CHALLENGES AND THE STRATEGIES AIMED AT THEIR SOLUTION. THE JOURNAL IS PARTICULARLY INTERESTED IN ADDRESSING THE POLITICAL, ECONOMIC, SOCIAL, MILITARY AND STRATEGIC ASPECTS OF GLOBAL HEALTH ISSUES.

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TABLE OF CONTENTS

MAPPING FOREIGN AFFAIRS AND GLOBAL PUBLIC HEALTH COMPETENCIES: TOWARDS A COMPETENCY MODEL FOR GLOBAL HEALTH DIPLOMACY
Matthew Brown, Julie Bergmann, Timothy Mackey,
Quentin Eichbaum, Lotus McDougal and Thomas Novotny3
ASSESSING THE IMPORTANCE OF TRIPARTITE GLOBAL HEALTH PARTNERSHIPS:
CONDUCTING A NESTED EMPIRICAL APPROACH
Eduardo J. Gómez
Eduarao v. Gomez
CASUALTIES OF WAR:
POLIO AND THE GOLDEN MILLIMETER
Claire Hajaj and Tuesday Reitano64
STATE AGENCY AND GLOBAL HEALTH GOVERNANCE:
THE FOREIGN POLICY AND GLOBAL HEALTH INITIATIVE
Kristin Ingstad Sandberg, Miriam Faid, and Steinar Andresen80
Kristin Ingstaa Sanaberg, Miriam Pata, ana Stemar Anaresen
SHAPING NORMS FOR HEALTH GOVERNANCE IN
THE ASSOCIATION OF SOUTHEAST ASIAN NATIONS (ASEAN)
Marie Nodzenski, Kai Hong Phua, Yee Kuang Heng, and Tikki Pang92
Trunto Ivouzonoki, Kut IIong I nau, 100 Kuang IIong, ana I noki I ang
EXPANDING HUMANITARIAN GLOBAL HEALTH CAPACITY FOR THE HUMAN GOOD
Donna Perry and Melissa Martelly107
DIGITALIZING DISEASE SURVEILLANCE:
THE GLOBAL SAFETY NET?
Clare Wenham124
THREE ERAS IN GLOBAL TOBACCO CONTROL:
HOW GLOBAL GOVERNANCE PROCESSES INFLUENCED ONLINE TOBACCO CONTROL NETWORKING
Heather Wipfli, Kar-Hai Chu, Molly Lancaster, and Thomas Valente138
THE AGE, GENDER AND RESIDENCE DIFFERENTIALS IN THE RELATIONSHIP OF INTERGENERATIONA
RELATIONS AND CHINESE ELDERLY'S SUBJECTIVE WELL-BEING
<i>Li Zhang</i> 151

Mapping Foreign Affairs and Global Public Health Competencies: Towards a Competency Model for Global Health Diplomacy

Matthew Brown, Julie Bergmann, Timothy Mackey, Quentin Eichbaum, Lotus McDougal and Thomas Novotny

The largest Ebola Virus Disease outbreak in recorded history required not only the greatest global health response in history, but also placed new demands on both the diplomatic corps and public health officials. Coordinated action to address public health issues that cross national boundaries is referred to as global health diplomacy (GHD), broadly defined as political activity that meets dual goals of improving public health and strengthening relations among nations. However, there is no GHD core competency model to inform training of professionals, or to help direct efforts requiring cross-disciplinary coordinated global health action. No institution has yet developed a GHD core competency model which would help bridge the fields of global public health and foreign affairs, providing additional guidance to diplomats and public health officials to prepare for global health emergencies. Without defined competencies in field of GHD, professionals changed with public health action may lack knowledge, skills, and abilities to effectively manage or lead during a global health emergency.

This research identifies and maps core competencies that can be used to address this gap in the training of professionals in the fields of foreign affairs and global public health. We conducted focused internet searches to identify two core competency models in foreign affairs and six competency models in global public health. Employing domain word counts, we compared models to determine degree of association, divergence, and emphasis. Based on this analysis, we propose a GHD core competency model to inform training within global public health and foreign affairs organizations and institutions. This initial model could assure that both foreign affairs and global health professionals have the necessary knowledge, skills, and abilities to support effective global health action.

INTRODUCTION

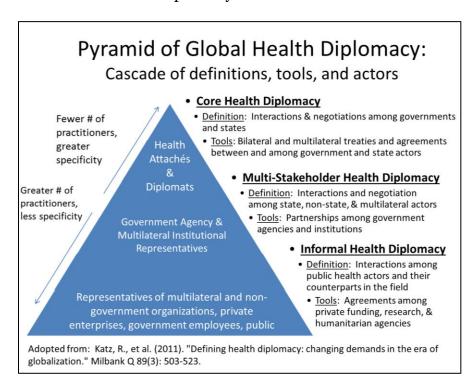
As the recent Ebola Virus Disease (EVD) outbreak rapidly demonstrated, foreign affairs and global public health professionals must work in concert to respond to complex diseases that rapidly transcend geopolitical borders. As a result of today's interconnected world, mass migration of people, and expanding social networks, many diseases threaten the security of populations globally, and nations must join together to tackle common public health threats. Global health and foreign affairs institutions currently tackle a myriad of global health threats including prevention and control of HIV/AIDS, tuberculosis, malaria, and pandemic influenza (H1N1), as well as mobilizing responses to severe acute respiratory syndrome and non-communicable diseases. Coordinated action that transcends international borders and conducted by country

governments, multilateral organizations, research institutions, and the public increasingly demands expertise in this emerging field of practice. GHD links actors in the fields of foreign affairs, security, and global public health.¹

GHD is broadly defined as political activities that meet the dual goals of improving public health and strengthening relations among nations.² However, linking the fields of global public health and diplomacy is a relatively recent concept, emerging over the last two decades.¹ Today, one can find GHD included as a topic in nearly every global health conference, as the focus of several academic journals,^{3,4} and on the institutional web pages of several public health institutions.^{3,5-9} The concept is relevant to global public health professionals as well as to members of the diplomatic corps. Despite the need for knowledge, skills, and best practices that demonstrate competence in the field of GHD, interdisciplinary training bridging public health and diplomacy remains nascent.¹⁰ This presents additional challenges to effectively measure or know if we have achieved specific competencies.¹¹ Additionally, greater refinement of definitions is needed to understand how competencies relate to specific areas of practice.

Adding more specificity to the field, Katz et al., introduced three categories of GHD: Core, Multilateral, and Informal GHD.¹² Further refinements in this description added elements of practice for the field: specific actors and tools used by each respective category of GHD (Figure 1).¹

Figure 1: Pyramid of Global Health Diplomacy¹



At the top of the practice pyramid, *Core* GHD's primary actors are Health Attachés: specialized diplomats whose main job is to report, negotiate, and formulate agreements that link governments, public health agencies and institutions around shared public health challenges and threats. Health Attachés have the highest degree of

credentialing associated with their field of practice; they are members of the diplomatic corps and consequently the fewest in number, with both sending and receiving governments needing to endorse a Health Attaché in a specific country.¹ In the midsection of the pyramid is *Multilateral* GHD, the principle actors of which are government employees and representatives of multilateral institutions. These actors have more diverse credentialing standards, and therefore there are a greater number of individual practitioners in this category. At the base of the pyramid is *Informal* GHD, whose principle actors are representatives from private enterprise, non-governmental organizations, academia, and civil society, which has the greatest variance in credentialing as well as the largest numbers of actors.

As illustrated in Figure 1, each actor employs specific tools best aligned within each stratum, including agreements, strategies, and models of best practice to achieve shared goals addressing common public health problems. Together, these three types of GHD emphasize the crosscutting and multi-disciplinary nature of GHD. Consequently, there follows a need to address competencies and training within the field, as well the measurements to assess performance and align best practices models at any level of GHD practice.¹³ An analysis of definitions, tools, and actors, and the requisite training for each, will help provide additional clarity on the practice of GHD.

Foreign affairs and public health agencies use core competencies for recruitment, accreditation, and educational standardization within their respective fields. 14,15 Core competencies are sets of knowledge, skills, abilities, and behaviors required for work within an organization and are used to measure progress and evaluate performance. However, in the emerging profession of GHD, neither foreign policy nor global public health institutions have updated their published core competency models to describe the linkage between the fields. Enhanced competency models that illustrate the cross-disciplinary knowledge, skills, and behaviors needed for practitioners of *Core* GHD may enhance the capacity of Health Attachés and diplomats to manage and lead in statecraft. However, these needs are also shared by actors in *Multilateral* and *Informal* GHD. Identifying the specific domains needed within a GHD competency model will help both foreign affairs and global public health training programs better prepare professionals to conduct GHD and more effectively respond to rapidly changing global health events.

As illustrated, competencies are observable and measurable forms of human behavior that are needed by a group or individual to achieve the goals of an organization.¹⁷ A competency model is an organizing framework that lists the behaviors or abilities required for effective performance in a specific job.¹⁸ Hence, such a model provides a uniform approach for individuals and organizations within the specific field.¹⁹ Further, established core competency models help institutions recruit, train, and accredit individuals into a profession, standardize approaches across institutions, and measure progress of an individual or an organization toward the ultimate goals of the group or organization.²⁰

The development of a core competency model in the nascent field of GHD, based on an analysis of differences, similarities, and degrees of emphasis of core competencies employed by global public health and foreign affairs organizations, is timely. This model would illustrate additional areas of emphasis needed when preparing global public health and foreign affairs professionals for challenges in today's interconnected world. Additionally, this would help align and guide practitioners charged with negotiations, policy development, and advocacy, to support more effective public health

action, critical in times of global public health emergencies. This paper fills this critical gap by proposing an initial core competency model for the emerging field of GHD to increase effectiveness as well as standardization for GHD actors.

METHODS

We used a three-stage process to develop a competency model for GHD. First, we identified published competency models with definitions from global public health and foreign affairs training organizations by conducting web searches and literature reviews of institutions, government agencies, academic programs, and the peer-reviewed literature. Second, we created aggregate models for both foreign affairs and global public health to facilitate comparisons between the two disciplines. Employing the foreign affairs model as an analytical framework, we then measured degrees of association by counting the foreign affairs key domain words that occur within each competency model. This analytical framework applied consistently across models gives us a surrogate measure for emphasis within each domain, elucidating degrees of shared commonality as well as divergence among the models. Finally, informed with these measures of association, we developed a draft set of core competencies for GHD by identifying additional emphases needed within both foreign affairs and global public health training programs.

Stage 1: Literature Review

Searches utilized PubMed, JSTOR, Google, and Google Scholar.²¹ We included competency models published from global public health and foreign affairs institutions that provide training to professionals in their respective fields. Unpublished competency models from government agencies, private universities, and firms that may charge fees for use of their competency models were excluded. To provide adequate source material to support word counts and comparisons, only competency models that contained definitions were included in the analysis.

Search terms for public health institutions with training mandates included: 'training in health diplomacy', 'training in global public health', and 'training in applied public health,' 'global public health', and 'core competency model' or 'core competencies' or 'core precepts' – which like competency, means a rule of action or conduct within a given field.

Search terms for diplomatic and foreign affairs institutions with training mandates included: 'training in diplomacy', 'competencies for diplomatic training', and 'applied diplomacy,' 'foreign affairs', 'diplomacy', and 'core competency model', 'core competencies', or 'core precepts'.

Stage 2: Analysis of Competency Models

We assembled an inventory of competency models (all models included in the analysis are listed in Appendix A: Global Public Health Competency Models and Appendix B: Foreign Affairs Competency Models). We then created an aggregate model to facilitate comparisons across disciplines. To create the aggregate model, we utilized seven *a priori* foreign affairs domains from the foreign affairs models, identified as

important in the review of the literature and used to train diplomats in the U.S. Foreign Service. We then enumerated the occurrence of each foreign affairs domain descriptor within each core competency model included in the analysis. The aggregate model thus represents a count of domain descriptors within each competency model. The higher count of domain descriptors, the greater the emphasis of this foreign affairs domain within in each model.

We used the foreign affairs domains to develop the analytic framework used for cross competency comparison as the foreign affairs domains are well established training elements and based on more than 200 years of refinement and application in training in diplomacy, negotiation, and statecraft.²² Global public health is by comparison a much newer academic field and emphasizes by necessity a multidisciplinary approach to competency development.²³ Foreign affairs domains also include areas emphasized in the literature for GHD, such as leadership, negotiations, and training in political, military, and commercial affairs.²⁴ In addition, given the growing demand that global public health issues make on the foreign policy, diplomatic training must also draw on competencies supported in the global public health literature, such as population health, research and ethical analysis, and scientific Thus, employing word counts from the foreign affairs framework, communication. applied consistency across multiple competency models with definitions, from both fields, yields measures of divergence and intersection, as well as relative emphasis among the competency models from these two fields.

Stage 3: Developing an Initial Competency Model for GHD

We developed the GHD competency model by identifying domains with the greatest difference between global public health and foreign affairs, rather than including domains with the greatest similarity. Including competencies with the greatest difference ensures cross-discipline competence, which as illustrated in the literature is most needed for the effective practice of GHD. Areas with agreement between fields are not included, as these competencies have sufficient attention within both foreign affairs and global public health.

RESULTS

We found no published inventories or comprehensive mapping exercises to describe competencies in the emerging field of GHD. However, we identified two core competency models that met the criteria established from our search methodology in the field of foreign affairs from a single institution, and six core competency models from the field of global public health from four different institutions (Figure 2).

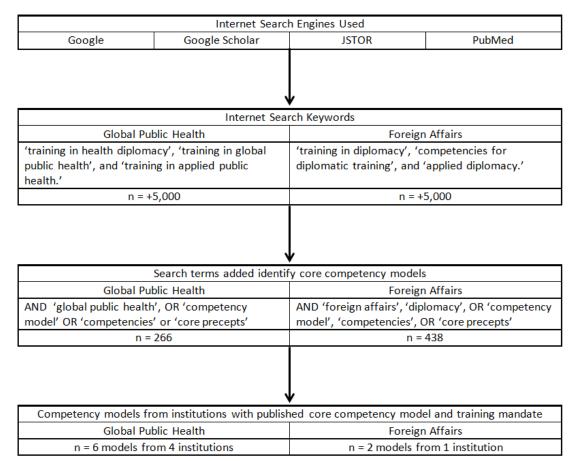


Figure 2: Study Institutions Inclusion and Exclusion Framework

Overall, eight competency models from five institutions fit the inclusion criteria (Table 1). We identified two models from one foreign affairs institution (n=2 models from 1 institution) and six models from four global public health institutions (n=6 models from 4 institutions).

Surprisingly, the U.S. Department of State, Foreign Service Institute, is the only foreign affairs institution that has two published core competency models in the field of foreign affairs. Other foreign affairs models were not included as they did not provide competency models with definitions, which are necessary for content analysis, or were not publicly accessible. This is striking considering that every country must maintain a foreign affairs department and must train professional diplomats to conduct negotiations with other nations. However, the U.S. Foreign Service Institute publishes a complete core competency model with definitions relevant to each career stage of a diplomat in the U.S. Foreign Service (designated as a Foreign Service Officer [FSO]). The first model, "13 Dimensions," is used to recruit and select new FSOs entering the diplomatic corps, with these individuals eventually working at the 294 U.S. Embassies, Consulates, and Missions abroad. The second model, "Criteria for Tenure and Promotion in the Foreign Service," is used after an employee is hired into the Foreign Service, differentiating among the levels of career competencies and used to guide FSOs

through a prescribed career track within the U.S. diplomatic corps.¹⁵ No other foreign affairs institution has a published core competency model.

Among global public health institutions, we identified six core global health competency models from four different institutions: the World Health Organization (WHO) -- with a model for WHO employees,²⁷ the Association of Schools and Programs of Public Health (ASPPH) -- with two models, one for Masters level and one for PhD level students,^{14,28-30} the U.S. Centers for Disease Control and Prevention (CDC) -- with two models, one for CDC employees who work globally, and one for Field Epidemiology Training Program participants, an applied public health training program conducted internationally by the CDC;³¹⁻³³ and the U.S. Food and Drug Administration (FDA) -- with one model for FDA employees who work globally.^{34,35}

Three of these institutions, WHO, CDC, and FDA, maintain a workforce of global health professionals who work outside internationally, supporting their respective agency missions and mandates. While the size and composition of these respective workforces vary, all have processes by which professionals are recruited, trained, retained, and promoted so that they can be effective in their international assignments. ASPPH is an association of academic public health programs that publishes a global public health competency model for use by schools of public health, and this is used to recruit, train, mentor and prepare students for careers in global public health. While focused on academic preparation, the ASPPH models describe various professional standards for global public health practice and are included in the analysis.

Table 1: Global Public Health and Foreign Affairs Institutions with Published Competency Models and Training Mandates

	Name of Institution	Type of Institution	Published Competency Model
1.	U.S. Department of State (DOS)	Foreign Affairs	Foreign Service Officer Qualifications - 13 Dimensions ³⁶
2.	U.S. Department of State (DOS)	Foreign Affairs	Decision Criteria for Tenure and Promotion in the Foreign Service (3 FAH-1 EXHIBIT H- 2321.1B) ³⁷
3.	World Health Organization (WHO)	Global Public Health	World Health Organization Core Competency Model ²⁷
4.	Association of Schools and Programs of Public Health (ASPPH)	Global Public Health	Association of Public Health Schools Global Health Competencies for Masters in Public Health ²⁸
5.	Association of Schools and Programs of Public Health (ASPPH)	Global Public Health	Association of Schools of Public Health Core Competencies for the Doctor of Public Health Degree, by Competency Domain ³⁰
6.	Centers for Disease Control and Prevention (CDC)	Global Public Health	Centers for Disease Control and Prevention field epidemiology training program competencies ³¹
7.	Centers for Disease Control and Prevention (CDC)	Global Public Health	Centers for Disease Control and Prevention: Global Public Health Competency Model ³³
8.	Food and Drug Administration (FDA)	Global Public Health	Food and Drug Administration: Developing a Global Curriculum for Regulators; Competency Definitions ³⁵

Description of Organizations:

- 1-2: The U.S. Department of State is the lead foreign affairs institution for the U.S. Government, the workforce are Foreign Service Officers and other professionals that work at the U.S. Department of State and serve at U.S. Embassies and consulates abroad supporting U.S. foreign policy.
- 3: The WHO is a multilateral body comprised of health agencies from member states of the United Nations. The workforce populates the various technical agencies of the organization to set global public health policy, norms and standards.
- 4-5: ASPPH is an association of schools and programs of public health, American and international academic institutions that train and accredit professionals in global public health, for both Masters and Ph.D. level accreditation.
- 6-7: The CDC is a public health practice agency, whose global workforce staff overseas offices and institutions with various disease protection, prevention, and control missions and mandates.
- 8: The FDA is a public health regulatory agency with overseas offices and a workforce of global regulators to carry out food, feed, medical device and pharmaceutical protection and regulation mandate. Both CDC and FDA are agencies within the U.S. Department of Health and Human Services, the principle public health authority in the United States.

Foreign Affairs Aggregate Model

We identified seven foreign affairs competency domain descriptors to compare competencies across disciplines. The first column in Table 2 lists the domain descriptor from the foreign affairs model, which serves as the comparison framework (Table 2). The next two columns show the number of occurrences for each descriptor within the first two foreign affairs models. The Foreign Affairs Aggregate column is the sum of the counts for Models 1 and 2. The final column in Table 2 is the proportional mention of each domain descriptor in the aggregate. This proportion illustrates the emphasis placed on that domain in the field of foreign affairs,, ordering the competencies from the The 'Substantive Knowledge' domain occurs highest emphasis to lowest emphasis. most often (41%) in the foreign affairs model. Substantive knowledge refers to knowledge of foreign policy objectives at the entry level, using professional standards to improve foreign affairs programs at the mid-level, and raising the level of performance of the foreign affairs organization at the senior level. 15 'Foreign language skills,' is the second highest (15%); followed by 'communication', 'managerial', and 'leadership' skills, all at 12% respectively, and lastly 'interpersonal' and 'intellectual' skills at 5% and 3%, respectively. This is the foreign affairs aggregate model we will use for comparison with global public health aggregate model, in the next section.

Table 2: Foreign Affairs Institutional Competencies and Domain Descriptors

Key Definitional Word, Search Term in 'Quotes'	Foreign Service Qualifications - 13 Dimensions	Promotion in Foreign Service - Core Precepts	Foreign Affairs Aggregate	Foreign Affairs Percentage
'Leadership' skills	1	7	8	12%
'Managerial' skills ('manage')	О	8	8	12%
'Interpersonal' skills ('personal')	2	1	3	5%
'Communication'	1	7	8	12%
Foreign 'language' skills	1	9	10	15%
'Intellectual' skills ('intellect' 'analysis' 'analyze')	0	2	2	3%
Substantive 'knowledge'	1	26	27	41%

Global Public Health Aggregate Model

Six global public health core competency models were identified during the literature review (Table 3) and were utilized in an aggregate for comparisons across disciplines. Similarly to the creation of the foreign affairs model, the global public health aggregate model describes highest emphasis to lowest emphasis using the proportional mention of domain descriptors. Within the global public health model, the highest percentage mention of descriptors is 'communication' skills (28%), followed by 'substantive knowledge' (24%), 'intellectual' skills (15%), 'managerial' and 'interpersonal' skills (11% each), 'foreign language' skills (7%), and 'leadership' skills (4%). This model will be used in the next section to compare across disciples.

Table 3: Global Public Health Competencies and Domain Descriptors

Domain Descriptors	Model 1: WHO Global Compe tency Model	Model 2: APPHA Global Health - Master s	Model 3: APPHA Global Health - Doctor ate	Model 4: CDC FETP Comp etenci es	Model 5: CDC Global Health Compe tencies	Model 6: FDA Compe tency Definit ions	Aggreg ate Global Public Heath Model	Propo rtion of descri ptor %
'Communication'	4	2	13	3	3	17	42	28%
Substantive 'knowledge'	5	1	1	0	8	21	36	24%
'Intellectual' skills ('intellect' 'analysis' 'analyze')	0	12	3	1	0	6	22	15%
'Managerial' skills ('manage')	4	1	2	4	2	3	16	11%

'Interpersonal' skills ('personal')	5	1	1	1	0	8	16	11%
Foreign 'language' skills	0	0	0	0	1	10	11	7%
'Leadership' skills	2	0	1	1	0	2	6	4%
Total							149	100%

Comparing the foreign affairs and global public health aggregate competency models, we found that the highest degree of overlap was for 'substantive knowledge' (41% and 28% respectively), followed by communication skills (12% and 28% respectively), and managerial skills (12% and 11% respectively) (Table 4).

Table 4: Comparison of Domains between Foreign Affairs and Global Public Health Competency Models

Competency Domains	Foreign Affairs Institutions (%)	Global Public Health Institutions (%)	Difference Between Public Health and Foreign Affairs (percentage points)
Leadership skills	12%	4%	8
Managerial skills ('manage')	12%	11%	1
Interpersonal skills ('personal')	5%	11%	6
Communication skills	12%	28%	16
Foreign language skills	15%	7%	8
Intellectual skills ('analysis' 'analyze')	3%	15%	12
Substantive knowledge	41%	24%	17
Totals	100%	100%	

The differences between emphasis among foreign affairs and global public health training competency models can be best visualized graphically (Figure 3). Global public health places a greater emphasis on 'communications' and 'intellectual skills.' And foreign affairs conversely place much greater emphasis on 'leadership,' 'foreign language,' and 'substantive knowledge' of U.S. foreign policy. Whereby, both competency models have similar attention to managerial skills. This visualization illustrates in Figure 3, to be more effective in crossing disciplines from global public health to foreign affairs, or vice versa, these are the areas of greatest divergence, and can thus serve as a map to enhance training in both global public health and foreign affairs professionals.

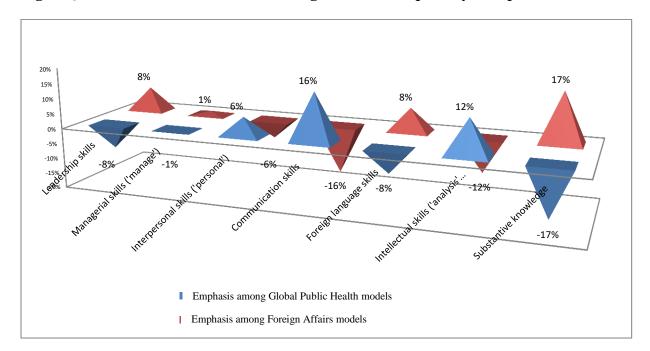


Figure 3. Global Public Health and Foreign Affairs Competency Comparison

Global Health Diplomacy Core Competency Model

The final competency model for GHD presents the interdisciplinary emphasis needed to address training gaps in public health (Table 5). The GHD model is not designed to be employed as a stand-alone model, but, rather, it can inform existing training programs of professionals in both fields. Like any core competency model, this model needs to piloted by existing and new training programs, tested, refined, measured, and validated by institutions and organizations that conducting training within these respective fields, so standardized approaches to GHD training may be identified, refined, and implemented, targeting global health action within each stratum of GHD.

By identifying and comparing areas of greatest emphasis within each respective field, we also identified the greatest gaps that must be addressed for each discipline. This mapping suggests needed enhancements to core competencies used to train professionals in both global public health and foreign affairs institutions. The suggested set of core competencies in Table 5 should be used to enhance the practice of GHD as derived from the models included in the comparison analysis, listed in Annex A (Foreign Affairs Models) and B (Global Public Health Models). These competencies should be used to enhance training of any institution engaged in global health for more effective global health action.

Table 5: Global Health Diplomacy Competencies:

Fo	For global public health professionals to be successful in a foreign affairs context:					
1.	Substantial Knowledge and Skills	Knowledge of foreign policy objectives at the entry level, using professional standards to improve foreign affairs programs at mid-level, and raising the level of performance of foreign affairs				

		organization at senior level ¹⁵
-		Identifies problems and proposes creative and realistic
		solutions; seeks to improve job and organization performance at
		entry level; at the mid-level develops innovative technical
		solutions to make process/organizational improvements and
2.	Leadership Skills	policy adjustments; engages staff in developing effective
		solutions; at the senior level creates organization-wide
		innovations; takes a long-term view and acts as a catalyst for
		constructive change; anticipates and prepares for future. ¹⁵
		Uses foreign language skills to enhance job performance, and
		better serve customers at entry level; at the mid-level uses skill to
		effectively communicate, work, and exercise influence, or to
3.	Foreign Language Skills	improve relationships with local community to better serve
		customers; at the senior level uses skill to promote U.S. interests
		with a wide range of audiences, including the media. ¹⁵
Fo	r foreian affairs professio	nals to be successful working with global health issues:
10	i joi eigh ajjun s projessio	Develop written public health communications, and develop and
		deliver oral public health communications; ^{33,35} Integrate health
1.	Health Communication	literacy concepts in all communication and marketing
1.	Skills	initiatives; develop formative and outcome evaluation plans for
	Sittle	communication and marketing efforts; prepare dissemination
		plans for communication programs and evaluations; ³⁰
		Evaluate and prioritize the importance of diseases or conditions
		of national public health concern (including scientific data,
		regulatory information, inspectional observations and other
		data regarding animals, drugs, food ingredients, and medical
		devices);31,35 Identify the relationships among patterns of
		morbidity, mortality, and disability of a specified community,
2.	Public Health Analysis	country, or region; ²⁸ Analyze epidemiologic data using
	Skills	appropriate statistical methods; ³¹ Interpret quantitative and
		qualitative data following current scientific standards;
		synthesize health information from multiple sources for research
		and practice. ³⁰ Presents information in a clear and concise
		manner orally and in writing to ensure others understand
		his/her ideas; and appropriately adapts his/her message, style,
		and tone to accommodate a variety of audiences.35
		Understand the sensitive nature of cultural, political, and policy
3.	Interpersonal and Ethical	differences and their impact in the design and implementation of
ی.	Knowledge and Skills	public health programs, and demonstrate knowledge of Human
	Knowleage and Skills	Research Subjects protocols and local Institutional Review
		Board (IRB) requirements 33

DISCUSSION

This is the first study to identify the training necessary for global public health and foreign affairs professional actors to enhance effectiveness when practicing in GHD. Addressing this necessity will improve the response to global health challenges, including epidemic response and developmental challenges. We have illustrated needs in the practice of *core*, *multi-stakeholder*, and *informal* GHD. This analysis will help align and guide recruitment and training of professionals in each field, enhance educational approaches across institutions, and help measure progress in professional development over time.^{1,13}

As illustrated during the Ebola outbreak in West Africa, diseases can rapidly threaten global populations and destabilize local governments, necessitating countries, multi-national institutions, and non-governmental organizations to mobilize enormous resources to tackle shared global public health threats. This activity increasingly relies on the emerging field of GHD to inform more effective public health actions where foreign policy, security, and public health goals intersect. As complex diseases transcend borders, a model for GHD becomes increasingly important to inform and guide foreign affairs and public health professionals working together.

With the mobility of populations due to economic forces and conflict, the world is more interconnected than ever before. In addition, there are now billions of dollars in foreign assistance for both global health development initiatives and public health emergency response. These elements create a perfect storm for complex political and health challenges which affect billions of people. More than ever before, global health and foreign affairs professionals need to work together in concert to tackle these complex problems and use increasingly scarce global health resources more effectively.

Our comparative analysis illustrates that each discipline's competency model has elements to support the practice of GHD and help bridge the fields of foreign affairs and global health. However, there are gaps in both disciplinary models. Global public health training normally does not include skills in leadership, foreign language, or foreign policy. On the other hand, foreign affairs competency models used to prepare diplomats in the U.S. Foreign Service, may not include skills in health communication, public health analysis, and health ethics. In order to increase effectiveness of multi-level global health cooperation across public health and foreign affairs professions, a core GHD competency model that incorporates the strengths of each field will better prepare any professional to effectively address GHD challenges.

Global public health institutions may utilize these GHD competences to enhance recruitment, retention, and accreditation so professionals charged with global health responses may acquire additional knowledge, experience, and abilities related to foreign policy. Our analysis emphasizes that these are the areas of least attention among global public health training programs, but are areas of greatest emphasis among foreign affairs training. At the same time, foreign affairs institutions may use these GHD competencies to enhance training of foreign affairs professionals, so they receive additional knowledge, skills, and abilities related to health communications, literacy and marketing, public health analysis of quantitative and qualitative data, and synthesizing information for research and practice, as well as ethical knowledge related to population health.

One example of cross-field competence is represented in the President's Emergency Plan for AIDS Relief (PEPFAR), the largest public health initiative in history targeting a single disease by a single government. PEPFAR is implemented by public health agencies, but it is managed and led at the U.S. Department of State through diplomatic missions. It is directed by an ambassadorial level appointee, the Global AIDS Coordinator, within the U.S. Foreign Service.³⁸ Ambassadors who have PEPFAR in their respective missions are responsible for the implementation of PEPFAR, requiring competencies in both global public health and foreign affairs to be effective.

We have also identified a lack of rigorous definitions in the emerging field of GHD, thus limiting the application of pedagogical standards across institutions. ¹² As a result, GHD education is often structured as survey courses for lay and health

professionals alike, and often only focusing on the knowledge of global public health principles, concepts, and programs.¹⁹ While short courses that focus on knowledge play an important role in continuing education, without competency models to guide training specific to GHD, the knowledge, skills, and behaviors necessary to carry out and evaluate GHD are not well-defined. Competency models are needed to inform more effective practice of GHD.^{12,39,40}

Professionalism and tradecraft -- the skills gained through experience in a trade, especially codified in the practice of diplomacy, has not been sufficiently described in the global public health literature. Perhaps this is due to the fact that global public health is by nature multidisciplinary, drawing from many fields of practice. The analysis presented, identifying dearth in both fields, is a starting point to help inform more effective models of practice for the tradecraft of GHD, which will need to draw on the knowledge, skills, and behaviors from both fields.

There are several limitations to the analysis we performed. First, foreign affairs and global public health core competency models were designed to support different professional fields, objectives, and institutions. By extension, each field has different and distinct workforces. However, as illustrated in this study, there is an increasing need to bolster competence for both global public health and foreign affairs professionals to work together to be effective. Public health experts need to understand foreign policy organizations, objectives, and have skills employed by diplomats, and diplomats must be able to understand and manage global public health threats that impact national security and population health. Thus, both fields must draw on foreign affairs and public health competencies to train and prepare their respective workforces. Our GHD competency model provides an initial guide to bolster the development of interdisciplinary knowledge, skills, and practice in GHD.

An additional limitation is the comparison of aggregate models for foreign affairs and global public health. While foreign affairs competencies characterize the training of Foreign Service Officers serving at U.S. Consulates, Embassies and Missions abroad, the six global public health competencies we identified are derived from four different institutions, all with different mandates, workforces, and constituencies. Each focus on different aspects of public health practice: academic training (ASPPH), regulatory function (FDA), and public health policy and global governance (WHO), and applied public health fieldwork (CDC). Foreign affairs competency models are stratified according to entry, mid-, and senior levels. None of the global public health competency models take this approach. However, all models in this analysis had published definitions sufficient for content analysis between these two fields. It is important to reiterate that the core competency model for GHD is not a standalone model for practice, but rather is designed to enhance the existing models from both foreign affairs and global public health training.

The foreign affairs competency domains were employed as a baseline for both disciplines and compared across the aggregates competency models by counting the occurrence of domain descriptors. This method is only a surrogate measure for association between these two disciplines. However, counting methodology, applied consistently, does yields a measure of association between these two fields. The word counts do not take into account that the two fields employ slightly different lexicons and may use words differently. However, only including competency models with

descriptions assured the content analysis was using the terms in a similar manner, and is sufficient to illustrate a relative emphasis of each competency within each field.

Lastly, by design, focusing only on published and publically available foreign affairs and global public health competency models, the search parameters severely limited the number of models included in this analysis. Since global public health draws from many disciplines, there are other areas of practice in global public health that were not included and thus not evaluated, but may have direct application to the practice of GHD. For example, the only ethical component of the draft GHD competency model relates to research ethics (Institutional Review Board procedures to ensure the ethical conduct of researchers and the protection of rights for the research subjects). A health diplomat may need additional competencies in population health ethics when evaluating vaccine programs rather than clinical research studies. Thus, additional research and analysis is needed to incorporate competencies for the application of research and ethical practice of GHD.

Nevertheless, the search parameters for this study included sufficient information to illustrate major similarities and differences between the two separate but now intimately related fields of global health and foreign affairs.

CONCLUSION

Evaluation of training programs is needed to refine the GHD competencies and pedagogical approaches that may be used in global health and diplomatic education. Competency-based training offers professionals engaged in GHD a better sense of what is necessary for collaboration, strategic thinking, and skill development needed to accomplish both global health and foreign policy goals in multi-level negotiations.

Foreign affairs institutions charged with training diplomats need to emphasize additional knowledge, skills, and abilities in heath communication, analysis, and public health ethics to be able to more effectively support global health. Similarly, global public health institutions charged with training health professionals need additional knowledge, skills, and abilities in leadership, foreign languages, and foreign policy goals, objectives, and strategies.

We have illustrated complementary competencies, drawn from the field of global public health and foreign affairs, which will help improve the practice of GHD for any institution engaged in addressing global health issues and challenges. The GHD model presented in this study is not meant to be used in isolation, but rather as guidance in designing appropriate training curricula of respective professionals in both fields, to increase effectiveness for global health action, especially critical during a public health crisis or emergency, or deigning complex global health partnerships with actors at all levels needed for effective global health action. Given the lessons currently being gleaned from the Ebola epidemic, there is continual need to expand the study of GHD and the pedagogy needed to support the development of future practitioners.

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MB conceived of project, drafted manuscript, conducted the analyses, and drafted all figures and tables, JB and LM assisted with the data analysis and manuscript, TM, QE, and TN assisted with the manuscript and conceptualization.

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Foreign Affairs Competency Models:

Appendix A:



Foreign Service Officer Qualifications - 13 DIMENSIONS³⁶

What **qualities** do we seek in FSO candidates? The successful candidate will demonstrate the following dimensions that reflect the skills, abilities, and personal qualities deemed essential to the work of the Foreign Service:

- 1. **Composure.** To stay calm, poised, and effective in stressful or difficult situations; to think on one's feet, adjusting quickly to changing situations; to maintain self-control.
- 2. **Cultural Adaptability**. To work and communicate effectively and harmoniously with persons of other cultures, value systems, political beliefs, and economic circumstances; to recognize and respect differences in new and different cultural environments.
- 3. **Experience and Motivation.** To demonstrate knowledge, skills or other attributes gained from previous experience of relevance to the Foreign Service; to articulate appropriate motivation for joining the Foreign Service.
- 4. **Information Integration and Analysis.** To absorb and retain complex information drawn from a variety of sources; to draw reasoned conclusions from analysis and synthesis of available information; to evaluate the importance, reliability, and usefulness of information; to remember details of a meeting or event without the benefit of notes.
- 5. **Initiative and Leadership.** To recognize and assume responsibility for work that needs to be done; to persist in the completion of a task; to influence significantly a group's activity, direction, or opinion; to motivate others to participate in the activity one is leading.
- 6. **Judgment.** To discern what is appropriate, practical, and realistic in a given situation; to weigh relative merits of competing demands.
- 7. **Objectivity and Integrity**. To be fair and honest; to avoid deceit, favoritism, and discrimination; to present issues frankly and fully, without injecting subjective bias; to work without letting personal bias prejudice actions.
- 8. **Oral Communication.** To speak fluently in a concise, grammatically correct, organized, precise, and persuasive manner; to convey nuances of meaning accurately; to use appropriate styles of communication to fit the audience and purpose.

- 9. **Planning and Organizing**. To prioritize and order tasks effectively, to employ a systematic approach to achieving objectives, to make appropriate use of limited resources.
- 10. **Quantitative Analysis**. To identify, compile, analyze, and draw correct conclusions from pertinent data; to recognize patterns or trends in numerical data; to perform simple mathematical operations.
- 11. **Resourcefulness.** To formulate creative alternatives or solutions to resolve problems, to show flexibility in response to unanticipated circumstances.
- 12. **Working With Others**. To interact in a constructive, cooperative, and harmonious manner; to work effectively as a team player; to establish positive relationships and gain the confidence of others; to use humor as appropriate.
- 13. **Written Communication.** To write concise, well organized, grammatically correct, effective and persuasive English in a limited amount of time.

Please note that we require no specific education level, academic major, or proficiency in a foreign language for appointment as a Foreign Service Officer.

Annex B: DECISION CRITERIA FOR TENURE AND PROMOTION IN THE FOREIGN SERVICE (3 FAH-1 EXHIBIT H-2321.1B)³⁶

Leadership Skills

Entry-Level	Senior-Level						
	Innovation						
Takes initiative to go beyond assigned tasks; identifies problems and proposes creative and realistic solutions; seeks to improve job and organization performance.	Develops insights into situations and applies them in the workplace; devises innovative solutions, including technical solutions, to make process/organizational improvements and policy adjustments; engages staff in process of developing new and effective solutions.	Creates an organization-wide environment which encourages innovation; takes a long-term view and acts as a catalyst for constructive change; conceives and institutes organization-wide policy and program initiatives; anticipates and prepares for <i>the</i> future.					
	Decision Making and Judgment						
Identifies issues (including safety and security concerns) within context of own job which require decisions or other action; arrives at recommendations in a logical, orderly manner; acts confidently and decisively within own purview, consulting others as appropriate; is sensitive to needs and opinions of others. Displays good judgment by discerning what is appropriate, practical, realistic, and allowable in the performance of official duties.	Makes reasoned, effective, and timely decisions after considering all relevant factors and options, even when data are limited or conflicting or will produce unpleasant consequences; implements decisions and evaluates their impact and implications, making adjustments as needed. Determines whether and how to make decisions or take action without senior-level review displaying good judgment in making those decisions.	Integrates policy and administrative factors into problem solving and decision making in a manner enhancing the entire organization; actively works to achieve Department's goals and objectives; encourages staff to accept responsibility. Demonstrates good judgment in all decisions.					
	Team Building						
Applies what he/she learns about team building to be an effective <i>member of an office or team</i> . Is open to views of others; works in collaborative, inclusive, outcome-oriented manner with U.S. and foreign colleagues; accepts team consensus.	Is an effective team or group leader , or supervisor who creates an environment that facilitates full participation and an open exchange of ideas; fosters cooperation and collaboration among U.S. and foreign colleagues; motivates and guides team or group members toward a common goal. Actively develops the skills of subordinates, or colleagues , counsels them, and makes optimum use of their talents.	Is an effective team motivator and leader, who inspires staff to participate and contribute; encourages and develops a sense of pride and cohesiveness among staff; resolves work- related problems by mobilizing team skills and resources; develops and implements strategies to improve the workplace, morale, skills and achievements of team members and the effectiveness of the overall organization.					
	Openness to Dissent						
Demonstrates the intellectual integrity to speak openly within channels and a willingness to risk criticism in order to voice sensible dissent. Publicly supports official decisions while using appropriate dissent channels in case of disagreement.	Encourages frank communication with colleagues and subordinates. Discerns when well-founded dissent is justified; engages in constructive advocacy of policy alternatives; guides staff to do the same.	Accords importance to well-founded dissent and solicits and defends its appropriate expression.					
Con	Community Service and Institution Building						
Participates actively in outreach or "community service" activities that contribute to employee welfare. For example, volunteers for Post or Department programs, initiatives, ceremonies, special events, blood and fund drives, and other activities.	Participates actively in institution building activities that strengthen a post, professional group, or office as an organization. Recognizes importance of and participates in performance evaluation, training, and resource allocation activities, e.g., serves on Selection Boards, post EER Review Panel, or Housing Board, and counsels/mentors colleagues, as appropriate.	Participates actively in "institution building" activities that strengthen the Department as an organization, or improves the efficiency and morale of a professional skill group, cone, or functional bureau. For example, recruits for the Department; serves as Diplomat-in-Residence or on the Board of Examiners; works on the Selection Boards; participates in Department mentoring program.					

Managerial Skills

Entry-Level	Mid-Level	Senior-Level				
Operational Effectiveness						
Plans, organizes, and directs operations and strategizes within areas of responsibility; ensures own projects meet customer requirements and are completed on schedule and within budget and scope; accepts supervision and guidance, and supports the projects of others; provides feedback to supervisors. Demonstrates commitment and/or moral courage by making difficult choices, working with a sense of purpose, and caring about the results.	Completes projects and produces results in most effective manner while balancing the department's goals and objectives and constraints of time and resources; critically analyzes the organization's strengths and weaknesses, and takes appropriate action.	Establishes effective procedures and controls to manage the work activities of subordinates; encourages, develops and rewards efforts of staff to enhance their effectiveness, including their ability to contribute to the achievement of the Department's goals and objectives; foresees challenges to, and opportunities for, the organization and takes steps in advance to deal with them.				
D	pirecting and Developing Performanc	ce				
Participates in preparation of work requirements for self and works with staff in preparing their work requirements; develops plans to accomplish work requirements; gives staff both formal and informal feedback on performance and potential; completes employee evaluations in accordance with standards and deadlines. Encourages and supports open communication with staff and colleagues.	Establishes and clearly communicates broad performance expectations for unit; manages staff effectively to meet those performance expectations; monitors plans to accomplish work requirements; delegates appropriately; creates a productive work environment in which employees' contributions are valued and encouraged; works to prevent and resolve personnel problems in a timely manner; ensures that the evaluation process is properly conducted and that counseling occurs throughout the rating year; effectively selects, trains, develops and supervises employees; ensures that staff is appropriately utilized, appraised, and rewarded; develops these same skills in others.	Establishes and clearly communicates organization- wide performance expectations in accordance with the Department's goals and objectives; inspires a high level of performance in staff; ensures the professional development and mentoring of staff; oversees possible improvements in human resource processes; ensures that the evaluation and counseling process is conducted effectively and in accordance with standards and deadlines.				
	Management of Resources					
Utilizes internal controls to protect the integrity of the organization and prevent waste, fraud, and mismanagement, reporting any instances where such problems occur; uses material and financial resources prudently; strives to produce highest return with lowest cost. Complies with responsibilities regarding resource reporting.	Ensures effectiveness of internal controls ; allocates resources efficiently, equitably, and in conformity with policy and regulatory guidelines; makes every effort to ensure that employees have the tools needed to work effectively.	Evaluates adequacy of internal controls and ensures implementation of improvements as warranted; holds managers accountable for the consequences of their resource policy decisions; seeks resource adjustments as needed.				
	Customer Service					
Interacts professionally, courteously and competently with all customers; demonstrates technical proficiency and ability to explain technical information in responding to customers, colleagues and superiors.	Balances competing and sometimes conflicting interests of a variety of customers and adjusts priorities as necessary to respond to customer concerns; anticipates and responds appropriately to customer needs. Uses available and appropriate technology to meet customer service goals.	At the organization level, encourages customeroriented focus; maintains or improves services organization-wide. Uses sophisticated understanding to resolve complex problems and meet customer expectations. Promotes own and staff's full utilization of professional and technical skills and technology to achieve bureau/mission customer service goals.				
Support for Equal Employment Opportunity and Merit Principles						
Takes diversity training and applies its principles to the workplace; treats all individuals with respect and without regard to race, color, gender, religion, national origin, age, disability, marital status, or sexual orientation; acts in compliance with USG and Department EEO policies.	Manages diversity by recruiting diverse staff at all levels and ensuring staff diversity training and awareness. Promotes diversity awareness through training, ensures, by example and instruction, and verifies, through monitoring and follow- up, that all employees are treated with fairness and respect; applies EEO and merit principles consistently; identifies and addresses situations giving rise to complaints and grievances based on issues of fairness in the workplace	Fosters an organization-wide environment in which diversity is valued and respected; encourages the organization to realize the full potential of a diverse staff; provides personal leadership and vigorous support for EEO, merit principles, and fair employment practices; recognizes that diversity within the workplace is a strategic advantage and acts accordingly.				

Security and Safety, including Management of Sensitive and Classified Material, Information and Infrastructure

Practices good personal, information, and physical security. Takes full responsibility for **properly** handling and safeguarding sensitive and classified material, information, and infrastructure. Has knowledge of security threats, responsibilities, procedures, regulations and issues. **Properly handles and accounts for dangerous equipment. Reports or addresses possible safety or security hazards or unsafe practices.**

Encourages the practice of good personal, information, and physical security measures and serves as a model for others. Ensures that effective procedures are in place to protect sensitive and classified material, information and infrastructure and that established security regulations are being followed. Assigns appropriate priority to addressing health, safety or security hazards.

Promotes the practice of good personal, information, and physical security measures by employees. Promotes security consciousness on an organization-wide basis; evaluates and monitors procedures to safeguard sensitive and classified material, information, and infrastructure and ensures that necessary changes are made if current procedures are inadequate; holds managers accountable for the consequences of their security policy decisions.

Crisis Management Skills

Possesses or seeks to possess appropriate knowledge of short- term (emergency) management and long-term (business continuity) management responses to crises, incidents or other serious situations and when appropriate anticipates in the development of plans to respond to such incidents.

Performs crisis management for the area of responsibility, including the development of preventative (risk management) plans, and develops **among the staff** awareness and skill in crisis management.

Performs crisis management and risk management for the entire organizational unit; sets the tone for the importance of crisis management for the unit; and seeks to reduce the need for crisis management if possible.

Interpersonal Skills

Entry-Level	Mid-Level	Senior-Level				
Professional Standards						
Holds self-accountable for rules and responsibilities; is dependable and conscientious; is composed, professional, and productive, even in difficult conditions. Treats all with respect. Is aware of and seeks to report instances or events that could create or result in a hostile work environment.	Holds others accountable for rules and responsibilities; consistently maintains equanimity and a professional demeanor; maintains own motivation and encourages others to persevere in difficult circumstances. Manages subordinates in a manner that clearly and consistently demonstrates respect.	Sets the standard for integrity and workplace behavior by example and instruction; does not lose composure under stress or in crisis; fosters a climate based on mutual respect and trust.				
	Persuasion and Negotiation					
Learns to influence others; gains cooperation while showing, in the spirit of mutual respect, understanding of other positions; applies these skills in both technical and nontechnical settings, as appropriate.	Influences others deftly; fosters understanding of USG/Department views and positions and/or procedures and requirements; develops mutually-beneficial working relationships with others; finds common ground among disparate forces and builds consensus; facilitates win-win situations. Negotiates effectively with host country or with federal, state and local counterparts as appropriate.	Negotiates effectively on a wide range of issues in internal, bilateral, and multilateral environments (to include interagency issues); manages and resolves major conflicts and disagreements in an interest-based manner; manifests a faculty for astute compromise without sacrificing ultimate goals.				
	Workplace Perceptiveness					
Demonstrates sensitivity in both domestic and foreign environments to status, protocol, interagency relationships, and chain of command; responds considerately to the needs, feelings, and capabilities of others; shows respect for cultural differences or different missions of agencies or counterparts.	Understands and deals effectively with relationships and aspirations; anticipates how others will react; frames own responses to achieve results.	Navigates easily in an environment of shifting relationships; anticipates socially sensitive issues and potential conflicts of interest and takes appropriate action.				
	Adaptability					

Adapts behavior and work methods as needed in response to new information, changing conditions, preferences of other people, or unexpected obstacles; and displays sensitivity to cultural differences.

Champions necessary change. Guides staff in adjusting to change; models and reinforces flexibility in the staff; manages risk and uncertainty; seeks to reduce any negative impact of change on the organization; and maintains own standards and identity despite change.

Anticipates the need for change; weighs risks; creates proactive plans to deal with change that reduces any negative impact on the unit; uses change to improve the effectiveness of the unit and its members; and exercises sophisticated cultural sensitivity in all circumstances.

Relationship Building and Representational Skills

Establishes and maintains purposeful and productive relationships with domestic, interagency or foreign contacts, clients and counterparts, interacts effectively in official and social encounters. If required by the position, attends uses and/or hosts representational events to promote relationships and understanding with host country, state, or local officials as appropriate.

Identifies and cultivates professional relationships with key *counterparts and institutions*; advances USG interests through hosting and attending representational events.

Moves with ease at all social settings and levels; cultivates professional relationships with audiences important to U. S. interests; hosts (when appropriate) representational events at most senior levels of society.

Communication and Foreign Language Skills

Entry-Level	Mid-Level	Senior-Level					
Entry-Level	Mid-Level	Semor-Level					
	Written Communication						
Writes succinctly; produces written materials that are thorough; conveys analysis that highlights essential points and clearly explains essence of subject to the intended audience whether mission management or senior Department official. Prepares written technical information appropriate to the audience or individual's frame of reference and uses analogy and other appropriate techniques to ensure understanding.	Writes clearly and persuasively; ensures that policy and operational issues are articulated in ways most helpful to the intended audience; assists staff to develop effective writing skills.	Exhibits full mastery of written communication; shows sophisticated ability to analyze, synthesize, and advocate in a timely manner; edits others' texts judiciously.					
	Oral Communication						
Speaks in a concise, effective, and organized manner, tailored to the audience and the situation; speaks convincingly in groups and in individual discussion. Communicates and explains technical information through use of analogy and other techniques to ensure understanding by the individual or audience.	Speaks authoritatively to all audiences, demonstrating comprehensive understanding of issues and options; articulates policy goals persuasively; fosters an atmosphere of open communication and exchange of ideas.	Effectively argues complex policy issues; deals comfortably with the most senior levels of government and society.					
	Active Listening						
Listens attentively; understands and comprehends others' messages; correctly reads nonverbal signals; summarizes others' views accurately and confirms accuracy of understanding; considers and responds respectfully and appropriately. Recognizes situations when use of active listening is critical (i.e., engaging customers on technical-related issues they do not understand.)	Instills trust in others which motivates them to speak openly and candidly; understands and respects cultural sensitivities and constraints in discussing issues and opinions; asks open- ended, incisive questions to ensure accuracy of understanding.	Adeptly discerns the meanings and nuances of messages that others convey.					
Public Outreach							

Develops public speaking and writing skills by seeking appropriate opportunities *and forums* (including professional associations) to present U. S. views and perspectives.

Seizes and creates opportunities to advocate U.S. or agency perspective to a variety of audiences. Actively develops the skills of subordinates. Deals comfortably with the media; is active and effective in public diplomacy, both in the U.S. and overseas. Contributes to and implements strategies to encourage a fair hearing for U.S. *or agency* views and perspectives

Foreign Language Skill (Generalists; Specialists as applicable)

Meets *appropriate* language probation requirements; uses foreign language skills to enhance job performance *and better serve customers*; seeks to improve foreign language skills.

Actively builds foreign language skills to meet Career Development (CDP) requirements, strives to acquire advanced level proficiency and/or general professional proficiency in additional languages; uses that skill effectively to communicate USG themes and exercise influence, or to improve relationships with local community to better serve customers and promote USG programs, works to increase foreign language ability.

Maintains and/or further develops proficiency in foreign language(s); uses skill to promote U.S. interests with a wide range of audiences, including the media.

Intellectual Skills

Entry-Level	Mid-Level	Senior-Level	
Locates, determines reliability of, and evaluates key information and quickly assimilates it; reorganizes information logically to maximize its practical utility and identify key underlying factors; recognizes when additional information is required and responds accordingly; considers a variety of sources, crosschecking when appropriate.	Has a sophisticated understanding of sources and their reliability; knows what to report and when; accepts that it may be necessary to base recommendations, decisions, or actions on incomplete information; anticipates consequences; guides and motivates staff to refine their own analytical skills to include developing a sophisticated understanding of the body of professional knowledge applicable to the job.	Integrates fully a wide range of information and prior experiences in policy making; ensures that <i>subordinates research and</i> evaluate information before making recommendations and decisions; recognizes situations in which information and analysis are incomplete, and responds wisely; accepts accountability for self and insists on it for staff.	
	Critical Thinking		
Identifies key information, central issues, and common themes; identifies the strengths and weaknesses of various approaches; outlines realistic options; distinguishes fact from opinion and relevant from irrelevant information.	Isolates key points, central issues, and common themes in a mass of complex information or procedures; <i>determines</i> the best solution or action from a range of options; <i>objectively analyzes problems and judges people</i> .	Clearly analyzes and defines complex policy issues, in terms which permit them to be dealt with in a practical way; encourages staff to analyze situations and propose options, giving constructive and instructive feedback; correctly senses when it is appropriate to take risks, and does so.	
Professional Development, including Active Learning			
Seeks out new job-related knowledge and readily grasps its implications for the workplace; seeks informal feedback and learns from mistakes; recognizes own strengths and weaknesses and pursues self-development. Is frank about own areas of insufficient knowledge. Maintains current certifications as appropriate.	Develops own knowledge through broadening experiences, whether work- related, academic studies, or other type of professional development; applies the principles learned on the job and encourages and supports professional development among subordinates and colleagues; provides informal feedback to colleagues and seeks feedback on own performance.	Anticipates the need for new information or knowledge for self and others; identifies sources of new information; communicates these sources to staff and facilitates access; actively promotes professional development at the organizational unit level; applies principles to foster organizational improvements, and promotes a workplace supportive of continuous professional development.	
I	Leadership and Management Training		
Learns basic principles of effective leadership and management. Pursues formal and informal training opportunities.	Uses training opportunities to improve personal leadership and management skills and to keep abreast of current theory and techniques. Applies the principles learned at FSI and other relevant courses on the job; e.g., by developing subordinates. Promotes training that benefits the organization or develops employee skills even if it does not immediately benefit post or office.	Actively promotes leadership and management training at the organizational unit level; applies principles of leadership and management training to foster organizational improvements.	
Substantive Knowledge			
	Г		

Entry-Level	Mid-Level	Senior-Level
Job Information		

Develops and applies body of professional knowledge needed in current assignment; learns factors which impact work; understands how job relates to organizational goals and U.S. policy objectives. Uses FSI and other training to improve individual job performance. Applies accumulated professional and/or technical knowledge to current assignment.

Has broad knowledge of job- related processes and practices; remains current on **professional standards**, policies, programs, and trends that affect the organization; analyzes the interplay of forces influencing the achievement of policy and program objectives and makes reasonable recommendations. Uses **professional knowledge**, training and other means to **effectively monitor and** improve programs **and operations**. Supports continuous learning of employees through both training and work opportunities.

Integrates thorough knowledge of issues arising in job to formulate and implement policies and programs; monitors internal and external sources for information and ideas; uses job knowledge to shape outcomes. Utilizes FSI training to raise level of organizational unit performance. Creates an environment and strategies to support professional development both through training and work opportunities.

Institutional Knowledge

Understands the roles and authorities of both the Department and other USG agencies and how they affect the Department of State. Applies that knowledge and the institutional realities it imposes to develop interagency cooperation in getting tasks accomplished and providing effective customer service.

Proactively applies knowledge of other USG Agencies and institutional realities, or field of expertise, to effectively advance State Department goals; operates on an equal footing with officials in other bureaus, foreign governments, business communities, academia, and media; develops these same skills in subordinates.

Uses sophisticated understanding of other USG Agencies and institutional realities to effectively advance USG foreign policy objectives, solve complex problems or meet/manage customer expectations, and develop those same skills in subordinates. Promotes interagency cooperation with a wide variety of senior USG officials to achieve the Department's foreign policy objectives.

Technical Skills

Develops technical skills and makes effective use of technology in the job setting; understands the impact of technology on the workplace and uses it to improve business processes; uses professional body of knowledge to develop and apply best practices in the use of technology.

Continuously enhances own and staff's understanding of work-related technical skills and technology and their applications; advances policy, **program**, **and customer service goals** through the use of available and appropriate technology.

Promotes own and staff's full utilization of professional and technical skills, and technology to achieve bureau/mission/customer service goals; devises efficient and cost-effective strategies to integrate technology into the workplace.

Professional Expertise

Understands and applies Department of State procedures, requirements, regulations, and policies; assimilates Department of State and Foreign Service *culture*; builds knowledge of U.S. and foreign environments; uses developing expertise in work situations. *Uses*

professional expertise to offer solutions, resolve problems, and provide effective customer service. Deepens understanding of the Department of State and of the Foreign Service as a profession; uses expertise to evaluate policies and programs and to advise, develop and assist others; operates - independently to further bureau/mission objectives. Promotes a work environment that enhances professional development and morale.

Combines mastery of U.S. policy objectives and **body of professional knowledge as well as** knowledge of foreign environments to advance USG goals; **develops Foreign Service skills** and expertise of staff.

Knowledge of Foreign Cultures

Develops and demonstrates knowledge of other cultures, values, and norms to include practicing effective customer service and business etiquette appropriate to the host country culture. Understands foreign or regional perspectives relevant to posting abroad or domestically.

Has thorough knowledge of foreign political, economic, cultural, and information environments; relates this knowledge to fulfillment of bureau/mission and customer service goals.

Uses **sophisticated** knowledge of foreign environments **and other cultures or norms** to identify and seize opportunities to advance USG goals **and operate effectively in local communities**. Develops subordinates' understanding of how best to advance U.S. interests in **local environments**.

Annex B Public Health Competency Models:

World Health Organization Core Competency Model²⁶ 1. Core Competencies

1) COMMUNICATING IN A CREDIBLE AND EFFECTIVE WAY

Definition: Expresses oneself clearly in conversations and interactions with others; listens actively. Produces effective written communications. Ensures that information is shared.

that information is shared. **INEFFECTIVE BEHAVIORS EFFECTIVE BEHAVIORS** 1. Speaks and writes clearly, adapting communication style and 1. Does not share useful information with others content so they are appropriate to the needs of the intended 2. Does little to facilitate open communication 2. Conveys information and opinions in a structured and credible way 3. Interrupts or argues with others rather than listening 3. Encourages others to share their views; takes time to understand and consider these views Uses jargon inappropriately in interaction with others 4. Ensures that messages have been heard and understood Lacks coherence in structure of oral and written communications; overlooks key points 5. Keeps others informed of key and relevant issues 2) KNOWING AND MANAGING YOURSELF $Definition: Manages\ ambiguity\ and\ pressure\ in\ a\ self-reflective\ way.\ Uses\ criticism\ as\ a\ development\ opportunity.\ Seeks\ opportunities\ for\ continuous$ learning and professional growth.

EFFECTIVE BEHAVIORS	INEFFECTIVE BEHAVIORS	
 Works productively in an environment where clear information or direction is not always available Remains productive when under pressure Stays positive in the face of challenges and recovers quickly from setbacks Uses constructive criticism to improve performance Shows willingness to learn from previous experience and mistakes, and applies lessons to improve performance Seeks feedback to improve skills, knowledge and performance 	 Demonstrates helplessness when confronted with ambiguous situations Demonstrates a lack of emotional control during difficult situations Reacts in a hostile and overly defensive way to constructive criticism Fails to make use of opportunities to fill knowledge and skills gaps Consistently demonstrates the same behavior despite being given feedback to change Transfers own stress or pressure to others 	
3) PRODUCING RESULTS		
Definition: Produces and delivers quality results. Is action oriented and committed to achieving outcomes.		
EFFECTIVE BEHAVIOURS	INEFFECTIVE BEHAVIORS	

- 1. Demonstrates a systematic and efficient approach to work
- 2. Produces high-quality results and workable solutions that meet client needs
- 3. Monitors own progress against objectives and takes any corrective actions necessary
- ${\bf 4.} \quad {\bf Acts\ without\ being\ prompted\ and\ makes\ things\ happen;\ handles} \\ {\bf problems\ effectively}$
- 5. Takes responsibility for own work
- 6. Sees tasks through to completion

- 1. Focuses on the trivial at the expense of more important issues
- Provides solutions that are inappropriate or conflict with other needs.
- 3. Focuses on process rather than on outcomes
- 4. Delivers incomplete, incorrect or inaccurate work
- 5. Fails to monitor progress towards goals; fails to respect deadlines
- 6. Delays decisions and actions

4) MOVING FORWARD IN A CHANGING ENVIRONMENT

Definition: Is open to and proposes new approaches and ideas. Adapts and responds positively to change.

1. Is receptive to new ideas and working methods.			
Is receptive to new ideas and working methods.		EFFECTIVE BEHAVIORS	INEFFECTIVE BEHAVIORS
 Actively supports change initiatives Recognizes opportunities for improvement and proposes workable solutions Actively seeks to apply new methods and technologies to improve work processes Adapts readily and efficiently to changing priorities and demands Is reluctant to change when faced with new demands or challenges Shows little flexibility in attitude when faced with new ideas at the work environment Becomes negative in outlook when faced with change 	3.	Actively supports change initiatives Recognizes opportunities for improvement and proposes workable solutions Actively seeks to apply new methods and technologies to improve work processes	challenges 2. Shows little flexibility in attitude when faced with new ideas 3. Holds outdated views despite changes in the work environment

5) FOSTERING INTEGRATION AND TEAMWORK

Definition: Develops and promotes effective relationships with colleagues and team members. Deals constructively with conflicts.

EFFECTIVE BEHAVIORS	INEFFECTIVE BEHAVIORS
 Works collaboratively with team members to achieve results Encourages co-operation and builds rapport among fellow team members Supports and acts in accordance with team decisions Accepts joint responsibility for team's successes and shortcomings Identifies conflict early and supports actions to facilitate its resolution 	 Focuses only on achieving personal goals at the expense of team objectives Works independently in settings which require group work Avoids sharing knowledge, information and expertise with team members Exploits divisions in the team Avoids dealing with conflict Shows little support for, or undermines fellow team members

6) RESPECTING AND PROMOTING INDIVIDUAL AND CULTURAL DIFFERENCES

Definition: Demonstrates the ability to work constructively with people of all backgrounds and orientations. Respects differences and ensures that all can contribute.

EFFECTIVE BEHAVIORS INEFFECTIVE BEHAVIORS

- 1. Understands and respects cultural and gender issues and applies this to daily work and decision making
- 2. Relates and works well with people of different cultures, gender and backgrounds
- 3. Examines own behavior and attitudes to avoid stereotypical responses
- 4. Considers issues from the perspective of others
- 5. Draws on diversity of skills, backgrounds and knowledge of people to achieve more effective results
- 1. Is unwilling to view issues from the perspective of others ${\bf r}$
- 2. Discriminates against individuals or groups
- 3. Makes judgments based on perceived cultural stereotypes
- 4. Seeks to relate only to persons of similar culture, religion, gender or level
- 5. Rationalizes all potential conflict by attributing the cause to differences in culture

7) SETTING AN EXAMPLE

Definition: Acts within WHO's professional, ethical and legal boundaries and encourages others to adhere to these. Behaves consistently in accordance with clear personal ethics and values.

	EFFECTIVE BEHAVIORS	INEFFECTIVE BEHAVIORS
1. 2.	Understands and behaves in accordance with WHO's professional, ethical and legal framework Demonstrates consistency between expressed principles and	 Compromises ethical standards to advance personal agenda Behaves inconsistently with personal and organizational ethics and values
3.	behaviors Is transparent in dealings with others	 Compromises organizational policies, rules and procedures when under pressure from the outside
4.	Takes action when others behave in an unprofessional or unethical manner	4. Breaches confidentiality and treats sensitive information without due regard or discretion
5.	Maintains confidentiality and treats sensitive information with discretion	Fails to take responsibility for own actions and decisions; tries to pass the responsibility to others
6.	Stands by own decisions or actions and takes responsibility for them	6. Fails to hold agreements made with others

2. Management competencies

8) CREATING AN EMPOWERING AND MOTIVATING ENVIRONMENT

Definition: Guides and motivates staff towards meeting challenges and achieving objectives. Promotes ownership and responsibility for desired

outcomes at all levels.		
EFFECTIVE BEHAVIORS	INEFFECTIVE BEHAVIORS	
 Provides staff with clear direction and support in meeting their objectives Ensures that roles, responsibilities and reporting lines are clearly defined, understood and accepted Delegates work appropriately to staff, providing them with the necessary support to meet their objectives Shows confidence in staff and encourages initiative Provides staff with regular feedback, recognizes good performance and addresses performance issues Motivates staff to achieve individual and team goals 	 Focuses only on own work and avoids managerial responsibilities Gives unclear or partial instructions and is vague about expected results Shows little trust in others and does not delegate work to others Fails to recognize the potential of staff, paying insufficient attention to development needs Fails to recognize or acknowledge the contributions of others Avoids giving "bad news" 	

9) ENSURING THE EFFECTIVE USE OF RESOURCES

Definition: Identifies priorities in accordance with WHO's strategic directions. Develops and implements action plans, organizes the necessary resources and monitors outcomes.

EFFECTIVE BEHAVIORS INEFFECTIVE BEHAVIORS 1. Develops plans into clearly defined objectives that take account of 1. Defines objectives and implementation plans that are unclear changing circumstances or impractical 2. Identifies priorities and defines realistic objectives and timelines 2. Fails to set priorities in advance or deviates regularly from 3. Identifies, organizes and effectively manages the financial and human resources needed to achieve results 3. Commits to delivery regardless of the impact on team or self 4. Fails to identify and organize the resources needed to 4. Is able to quickly re-allocate resources and reset priorities in response to accomplish tasks unexpected events 5. Is slow in reallocating resources and shifting priorities when 5. Establishes measures to monitor resources and progress of activities as faced with changes planned 6. Monitors costs and seeks to use the most cost- effective methods 6. Fails to monitor own and others' goals, activities and budgets

10) BUILDING AND PROMOTING PARTNERSHIPS ACROSS THE ORGANIZATION AND BEYOND

Definition: Develops and strengthens internal and external partnerships that can provide information, assistance and support to WHO. Identifies and uses synergies across the Organization and with external partners.

EFFECTIVE BEHAVIORS	INEFFECTIVE BEHAVIORS
 Seeks to understand and promote synergies between the work produced in WHO and the work of external partners to improve organizational success Builds and maintains mutually beneficial work relationships and alliances inside and outside the Organization Encourages and assists others in building networks to improve results Creates opportunities for promoting synergies inside and outside the organization to improve outcomes Encourages people from different parts of the Organization to work together 	 Shows little interest in developing effective relationships and mutual opportunities inside or outside of WHO Establishes networks for personal rather than organizational benefit Sees departments as separate entities with little impact upon each other Is over-protective towards own area of work and impedes cross-organizational actions and interventions Works in isolation and makes no proactive effort to integrate with other activities in the Organization

3. Leadership competencies

11) DRIVING WHO TO A SUCCESSFUL FUTURE Definition: Demonstrates a broad-based understanding of the growing complexities of health issues and activities. Creates a compelling vision of shared goals, and develops a roadmap for successfully achieving real progress in improving people's health. EFFECTIVE BEHAVIORS INEFFECTIVE BEHAVIORS

- Demonstrates an excellent understanding of the complex interrelationships of factors which impact on international public health
- 2. Anticipates new trends and identifies opportunities to promote the long-term goals of WHO $\,$
- Takes an active role in developing and articulating a clear and coherent identity for WHO and builds commitment to this inside and outside the Organization
- Develops strategic plans which are in line with WHO's mission and which balance competing priorities
- 5. Shows astuteness and uses all relevant processes to get things done

- Fails to think of the broader context; isolates work to own technical field
- 2. Considers only a narrow or local perspective when developing strategy and plans
- 3. Develops strategies without involving or consulting others
- 4. Fails to base initiatives or actions on a clear long term vision
- 5. Develops plans which include conflicting priorities
- 6. Fails to identify and use the relevant processes to get things done

12) PROMOTING INNOVATION AND ORGANIZATIONAL LEARNING

Definition: Invigorates the Organization by building a culture that encourages learning and development. Sponsors innovative approaches and solutions

EFFECTIVE BEHAVIORS	INEFFECTIVE BEHAVIORS
 Drives change and improvement, continually searching for new ways to position the Organization for success Encourages others to be innovative to improve outcomes Ensures that knowledge and learning is shared across the Organization; encourages staff to learn from each other Uses feedback to find ways to increase organizational effectiveness. Pushes sense of responsibility and empowerment down the Organization Creates opportunities for learning and development throughout the Organization 	 Does little to promote continuous learning and professional development Ignores innovative or creative inputs from others and is biased towards favoring the status quo Changes processes and methods in a radical way, without consulting others or considering consequences. Avoids or dismisses feedback about organizational effectiveness Maintains a culture of bureaucracy and hierarchical power in the Organization

13) PROMOTING WHO'S POSITION IN HEALTH LEADERSHIP

Definition: Positions WHO as a leader in health issues. Gains support for WHO's mission. Coordinates, plans and communicates in a way that attracts support from intended audiences

EFFECTIVE BEHAVIORS	INEFFECTIVE BEHAVIORS
 Promotes WHO's mission and programmes successfully Negotiates effectively with persons inside and outside of WHO Gains agreement from others for a desired course of action Demonstrates authority and credibility in dealings with others Prepares and delivers complex and high level messages, using a range of appropriate techniques 	 Fails to promote and defend ideas on key issues Uses inappropriate arguments and ineffective negotiation techniques when trying to influence people Fails to negotiate sustainable agreements Lacks credibility and fails to create a positive impact. Fails to adapt complex messages to intended audiences

Annex D: Association of Public Health Schools Global Health Competencies for Masters in Public Health¹¹

DOMAIN 1: Capacity Strengthening

Capacity strengthening is the broad sharing of knowledge, skills, and resources for enhancement of global public health programs, infrastructure, and workforce to address current and future global public health needs.

- 1.1 Design sustainable workforce development strategies for resource-limited settings.
- 1.2 Identify methods for assuring health program sustainability.
- 1.3 Assist host entity in assessing existing capacity.
- 1.4 Develop strategies that strengthen community capabilities for overcoming barriers to health and well- being.

DOMAIN 2: Collaborating and Partnering

Collaborating and partnering is the ability to select, recruit, and work with a diverse range of global health stakeholders to advance research, policy, and practice goals, and to foster open dialogue and effective communication.

- 2.1 Develop procedures for managing health partnerships.
- 2.2 Promote inclusion of representatives of diverse constituencies in partnerships.
- 2.3 Value commitment to building trust in partnerships.
- 2.4 Use diplomacy and conflict resolution strategies with partners.
- 2.5 Communicate lessons learned to community partners and global constituencies.
- 2.6 Exhibit interpersonal communication skills that demonstrate respect for other perspectives and cultures.

DOMAIN 3: Ethical Reasoning and Professional Practice

Ethical reasoning and professional practice is the ability to identify and respond with integrity to ethical issues in diverse economic, political, and cultural contexts, and promote accountability for the impact of policy decisions upon public health practice at local, national, and international levels.

- 3.1 Apply the fundamental principles of international standards for the protection of human subjects in diverse cultural settings
- 3.2 Analyze ethical and professional issues that arise in responding to public health emergencies
- 3.3 Explain the mechanisms used to hold international organizations accountable for public health practice standards.
- 3.4 Promote integrity in professional practice.

DOMAIN 4: Health Equity and Social Justice

Health equity and social justice is the framework for the analysis of strategies to address health disparities across socially, demographically, or geographically defined populations.

- 4.1 Apply social justice and human rights principles in public health policies and programs.
- 4.2 Implement strategies to engage marginalized and vulnerable populations in making decisions that affect their health and well-being.
- 4.3 Critique policies with respect to impact on health equity and social justice.
- 4.4 Analyze distribution of resources to meet the health needs of marginalized and vulnerable groups.

DOMAIN 5: Program Management

Program management is the ability to design, implement, and evaluate global health programs to maximize contributions to effective policy, enhanced practice, and improved and sustainable health outcomes.

- 5.1 Conduct formative research.
- 5.2 Apply scientific evidence throughout program planning, implementation, and evaluation.
- 5.3 Design program work plans based on logic models.
- 5.4 Develop proposals to secure donor and stakeholder support.
- 5.5 Plan evidence-based interventions to meet internationally established health targets.
- 5.6 Develop monitoring and evaluation frameworks to assess programs.
- 5.7 Utilize project management techniques throughout program planning, implementation, and evaluation.
- 5.8 Develop context-specific implementation strategies for scaling up best-practice interventions.

DOMAIN 6: Socio-cultural and Political Awareness

Socio-cultural and political awareness is the conceptual basis with which to work effectively within diverse cultural settings and across local, regional, national, and international political landscapes.

- Describe the roles and relationships of the entities influencing global health.
- Analyze the impact of transnational movements on population health.
- 6.3 Analyze context-specific policy making processes that impact health.
- 6.4 Design health advocacy strategies.
- Describe multi-agency policy-making in response to complex health emergencies.
- 6.5 6.6 Describe the interrelationship of foreign policy and health diplomacy.

DOMAIN 7: Strategic Analysis

Strategic analysis is the ability to use systems thinking to analyze a diverse range of complex and interrelated factors shaping health trends to formulate programs at the local, national, and international levels.

- Conduct a situation analysis across a range of cultural, economic, and health contexts.
- 7.1 7.2 Conduct a situation analysis across a range of cultural, economic, and health contexts.

 Identify the relationships among patterns of morbidity, mortality, and disability with demographic and other factors in shaping the circumstances of the population of a specified community, country, or region.

 Implement a community health needs assessment.

 Conduct comparative analyses of health systems.
- 7.3
- Explain economic analyses drawn from socio-economic and health data.
- 7.4 7.5 7.6 Design context-specific health interventions based upon situation analysis.

Annex E: Association of Schools of Public Health Core Competencies for the Doctor of Public Health Degree²⁹

A. ADVOCACY

The ability to influence decision-making regarding policies and practices that advance public health using scientific knowledge, analysis, communication, and consensus-building.

Competencies: Upon graduation a student with a DrPH should be able to...

- Present positions on health issues, law, and policy.
- A2. Influence health policy and program decision-making based on scientific evidence, stakeholder input, and public opinion data.
- Utilize consensus-building, negotiation, and conflict avoidance and resolution techniques.
- A4. Analyze the impact of legislation, judicial opinions, regulations, and policies on population health.
- A5. Establish goals, timelines, funding alternatives, and strategies for influencing policy initiatives.
 A6. Design action plans for building public and political support for programs and policies.
- A7. Develop evidence-based strategies for changing health law and policy.

B. COMMUNICATION

The ability to access and use communication strategies across diverse audiences to inform and influence individual, organization, community, and policy actions.

Competencies: Upon graduation a student with a DrPH should be able to...

- B1. Discuss the inter-relationships between health communication and marketing.
- B2. Explain communication program proposals and evaluations to lay, professional, and policy audiences.
- B3. Employ evidence-based communication program models for disseminating research and evaluation outcomes.
- B4. Guide an organization in setting communication goals, objectives, and priorities.
- B₅. Create informational and persuasive communications.
- B6. Integrate health literacy concepts in all communication and marketing initiatives.
- B7. Develop formative and outcome evaluation plans for communication and marketing efforts.
- B8. Prepare dissemination plans for communication programs and evaluations.
- Propose recommendations for improving communication processes.

C. COMMUNITY/CULTURAL ORIENTATION

The ability to communicate and interact with people across diverse communities and cultures for development of programs, policies, and research.

Competencies: Upon graduation a student with a DrPH should be able to...

- C1. Develop collaborative partnerships with communities, policy makers, and other relevant groups.
- C2. Engage communities in creating evidence-based, culturally competent programs.
- C3. Conduct community-based participatory intervention and research projects.
- C4. Design action plans for enhancing community and population-based health.
 C5. Assess cultural, environmental, and social justice influences on the health of communities.
- C5. Assess cultural, environmental, and social justice influences on the health of commun
 C6. Implement culturally and linguistically appropriate programs, services, and research.

D. CRITICAL ANALYSIS

The ability to synthesize and apply evidence-based research and theory from a broad range of disciplines and health-related data sources to advance programs, policies, and systems promoting population health.

Competencies: Upon graduation a student with a DrPH should be able to...

- D1. Apply theoretical and evidence-based perspectives from multiple disciplines in the design and implementation of programs, policies, and
- systems.

 D2. Interpret quantitative and qualitative data following current scientific sta
- D2. Interpret quantitative and qualitative data following current scientific standards. D3. Design needs and resource assessments for communities and populations.
- D4. Develop health surveillance systems to monitor population health, health equity, and public health services.
- D₅. Synthesize information from multiple sources for research and practice.
- D6. Evaluate the performance and impact of health programs, policies, and systems.
- D7. Weigh risks, benefits, and unintended consequences of research and practice.

E. LEADERSHIP

The ability to create and communicate a shared vision for a positive future; inspire trust and motivate others; and use evidence-based strategies to enhance essential public health services.

Competencies: Upon graduation a student with a DrPH should be able to...

- E1. Communicate an organization's mission, shared vision, and values to stakeholders.
- E2. Develop teams for implementing health initiatives.
- E3. Collaborate with diverse groups.
- E4. Influence others to achieve high standards of performance and accountability.
- E5. Guide organizational decision-making and planning based on internal and external environmental research.
- E6. Prepare professional plans incorporating lifelong learning, mentoring, and continued career progression strategies.
- E7. Create a shared vision.

- Develop capacity-building strategies at the individual, organizational, and community level. Demonstrate a commitment to personal and professional values. E8.
- E9.

F. MANAGEMENT

The ability to provide fiscally responsible strategic and operational guidance within both public and private health organizations for achieving individual and community health and wellness.

Competencies: Upon graduation a student with a DrPH should be able to...

- F2.
- Implement strategic planning processes.

 Apply principles of human resource management.

 Use informatics principles in the design and implementation of information systems.

 Align policies and procedures with regulatory and statutory requirements. F3.
- F4.
- F5. Deploy quality improvement methods.
- Organize the work environment with defined lines of responsibility, authority, communication, and governance. Develop financial and business plans for health programs and services.

 Establish a network of relationships, including internal and external collaborators.

 Evaluate organizational performance in relation to strategic and defined goals. F6.
- F7.
- F8.
- F9.

Annex F: Centers for Disease Control and Prevention field epidemiology training program competencies³⁰

Epidemiologic methods	1. 2.	Use epidemiologic practices to conduct studies that improve public health program delivery Respond to outbreaks	
	۷.	respond to outpreaks	
Biostatistics	3.	Analyze epidemiologic data using appropriate statistical methods	
Public health surveillance	4.	Manage a public health surveillance system	
Laboratory and biosafety	5.	Use laboratory resources to support epidemiologic activities	
Communication	6.	Develop written public health communications	
	7.	Develop and deliver oral public health communications	
Computer technology	8.	Use computers for specific applications relevant to public health practices	
Management and leadership	9.	Manage a field project	
_	10.	Manage staff and resources	
	11.	Be an effective team leader and member	
	12.	Manage personal responsibilities	
Prevention effectiveness	13.	Apply simple tools for economic analysis	
Teaching and mentoring	14.	The state of the s	
	15.	Mentor public health professionals	
Epidemiology of priority diseases and injuries	16.	Evaluate and prioritize the importance of diseases or conditions of national public health concern	

Annex G: Centers for Disease Control and Prevention: Global Public Health Competency Model³²

Competency	Key Behaviors
Cultural Competence Key Behaviors:	Definition: Cultural competence involves operating in different cultural contexts and integrating knowledge about individuals and groups of people into public health practice to produce better public health outcomes.
	 Interact sensitively and professionally with persons from diverse cultural, educational, socioeconomic, educational, racial, ethnic, and professional backgrounds. Maintain an awareness of own behavior and consider the perspectives of others to resolve or avoid cultural issues or misinterpretations. Understand and communicate the need for a culturally/ethnically representative workforce. Understand the sensitive nature of cultural, political, and policy differences and their impact in the design and implementation of public health programs. Communicate in the language of the host country. Adapt communication style and techniques to culturally diverse situations.
	7. Arrange for interpreters to be present when necessary.
Knowledge of CDC Global Goals Key Behaviors:	Definition: Knowledge of CDC global goals includes understanding and applying CDC's global strategic plan to global public health programs. 1. Understand and apply the goals and objectives of the CDC Global Action Plan. 2. Articulate the linkage between the CDC global strategic plan and the strategic plan of the Country Office. 3. Identify opportunities presented in host country to promote short- and long-term CDC goals. 4. Understand the linkage between CDC global goals and other global public health goals (e.g., Millennium
	Development Goals, Global Fund goals, Department for Health and Human Services goals). 5. Understand the linkage between program-specific goals and the CDC global goals.
Global Legal and Ethical Professionalism Key Behaviors:	Definition: Global legal and ethical professionalism includes adhering to a high level of professional and ethical behavior in all administrative and research activities in accordance with Federal rules and regulations, while respecting local cultural values. 1. Demonstrate sensitivity to local values while adhering to Federal and U.S. State Department policies and procedures. 2. Demonstrate knowledge of Human Research Subjects protocols and local Institutional Review Board (IRB)
	requirements. 3. Demonstrate understanding of relevant local and national laws regarding administrative and research activities (e.g., employee and patient rights).
Building Global Partnerships	Definition: Building global partnerships includes developing, fostering, and employing relationships with global entities (e.g., Ministries of Health, universities, other government agencies and international organizations) to improve public health. 1. Realth coaltings with public and private coater global health entities government officials internal partners and
Key Behaviors:	 Build coalitions with public- and private-sector global health entities, government officials, internal partners, and media professionals to achieve organizational goals. Collaborate with CDC programs and global partners in developing, implementing, and evaluating health intervention campaigns. Understand the unique missions, goals, and objectives of global partners to promote a shared understanding of public health objectives in the host country. Demonstrate knowledge of strategies for identifying and involving community (i.e., national, regional, local) organizations, resources, and participants around identified needs and interests. Create or leverage opportunities to develop new partnerships. Develop partnerships with other agencies that may have authority in public health-related situations (e.g., emergency events).
Global Representation and Promotion Key Behaviors:	 Definition: Global representation and promotion includes the advancement of the public health policies and practices of CDC's global programs. Promote CDC operations and programs to diverse audiences in conjunction with documented project plans. Remain accountable for representing CDC's position in public health in the host country. Represent CDC and CDC global programs to the media and other audiences, adhering to communications clearance policies. Promote joint efforts with CDC and global partners.

Global Program and Policy Development Key Behaviors:	 Definition: Global program and policy development includes providing technical assistance and training to strengthen partner capacity to conduct public health science and practice. Coordinate training for students and public health professionals in basic and applied public health research; program planning, implementation and evaluation; and program administration and management. Provide training, consultation or technical assistance for the development, implementation, and evaluation of local public health programs. Develop optimal approaches for program and policy implementation based on an awareness of the political, social, and/or technological constraints of the host country. Promote the incorporation of research findings into operational disease prevention and control programs. Facilitate and support community health planning bodies in the process of decision-making and planning at the local, regional, and national levels. Identify the role of cultural factors in both the onset and solution of public health problems. Promote the sharing of data and expertise with other partners. Demonstrate knowledge of community change strategies and capacity building. Identify and draw upon partner capabilities to meet program objectives.
Navigating the Global Environment Key Behaviors:	 Definition: Navigating the global environment includes the knowledge and skills required to live and work in an unfamiliar international context. Recognize the role of the U.S. State Department overseas (e.g., travel requests, safety/security, country-specific policies). Maintain an understanding of applicable personnel policies (e.g., rights and responsibilities, medical programs, diplomatic titles and immunity, compensation, benefits, competitive hiring process). Deal effectively with pressure and maintain focus, even under adverse conditions. Maintain close relationships with host country and U.S. governmental entities (e.g., U.S. State Department, Ministry of Health). Balance the differences between the policies and procedures of the U.S. Government and the host program (e.g., WHO, UNICEF). Recognize potentially threatening situations and apply appropriate safety techniques. Represent the U.S. appropriately at all times, not only when on duty.
Global Business Processes Key Behaviors:	 Definition: Global business processes includes understanding and applying business knowledge and principles overseas. Provide guidance to country office staff in financial and accountability policies and practices. Perform negotiations with in-country partners/stakeholders by applying the principles of cultural competence. Negotiate for the use of community assets and resources. Understand the rules, regulations, advantages, and disadvantages of partnering with foundations, donor organizations, etc., in global settings. Apply an understanding of grants, cooperative agreements, financial management, budgeting, and appropriations to global public health programs. Maintain proper division between CDC and grantee/partner operations. Coordinate with appropriate party (e.g., U.S. Embassy General Services Officer, CDC support offices) for all business actions or program operations. Coordinate with Embassy officers to understand the unique laws (e.g., tax and labor laws) associated with doing business in the host country. Manage the relationship between CDC headquarters support functions and the country office by maintaining communications and responding to requests and deadlines in a timely manner.
Complex Problem Solving and Decision Making Key Behaviors:	 Definition: Complex problem solving and decision making includes understanding the complexities associated with solving problems and making decisions in an often ambiguous global, multicultural context Search for new or innovative ways to solve problems within the country context. Understand where the appropriate authority or jurisdiction lies when making decisions on particular issues (e. g., CDC or U.S. State Department/Embassy). Collaborate with various parties (e.g., partners, grantees, headquarters, Ministry of Health) in decisions that may affect them. Manage conflict that may arise from sensitive decisions. Develop solutions and make decisions based on limited or uncertain information. Use feedback from others (e.g., partners, grantees, headquarters, Ministry of Health) to inform future decisions.

Annex H: Food and Drug Administration: Developing a Global Curriculum for Regulators; Competency Definitions³⁴

1.0 Global Workforce Competencies	Definition	Behaviors
1.1 Diplomacy	Interacts tactfully with foreign counterparts and colleagues on a wide range of topics and issues to achieve desired outcomes.	 Incorporates a variety of methods for interacting with persons from diverse cultural, socioeconomic, educational, racial, ethnic and professional backgrounds to conduct discussions and negotiations with foreign counterparts. Works effectively with international organizations, regulatory authorities, and other foreign colleagues to foster cooperation, information exchange, harmonization and capacity building. Provides thought and response to all situations and activities through a global perspective.
1.2 Intercultural Awareness	Recognizes and respects differences in new and different cultural environments. Demonstrates flexibility and the capacity to change one's knowledge, attitudes and behaviors to enhance the ability to communicate and negotiate in the international arena.	 Integrates cultural knowledge (i.e., history, values, belief systems behaviors, and problem solving and negotiation styles) and sensitivity to increase the quality of interactions with foreign counterparts. Recognizes the meaning of nonverbal communication across cultures and responds accordingly. Identifies intercultural communication style patterns and appropriate responses. Analyzes the implications of individualism and collectivism as a cause of cultural clashes. Uses foreign language and communications skills whenever appropriate.
1.3 Knowledge of U.S. Government Agencies with an International Component	Demonstrates an in-depth knowledge and understanding of the roles and responsibilities of U.S. government agencies involved in international issues, multinational organizations and foreign governments (including Washington DC embassies) for policy formulation and execution impacting FDA and FDA regulated products and effectively partners with these organizations to achieve mutual goals.	 Successfully partners with U.S. government agencies with an international component to support global product quality and safety. Demonstrates knowledge of current regulatory, policy, roles and responsibilities of US government agencies with an international component as it pertains to FDA's global mission. Ensures consistency and accuracy in the communication of FDA regulatory, policy, or procedural information to colleagues at other U.S. government agencies with an international component on a regular basis.
1.4 Knowledge of Foreign Counterparts	Demonstrates an in-depth knowledge and understanding of the roles and responsibilities of foreign counterparts, foreign governments and international health and regulatory partners.	 Successfully partners with international health and regulatory organizations to support global product quality and safety. Demonstrates knowledge of current regulatory, policy, arrangements, roles and responsibilities of foreign counterparts as it pertains to achieving FDA's global mission. Ensures consistency and accuracy in the communication of FDA regulatory, policy, or procedural information to international partners on a regular basis.
1.5 Global Awareness	Demonstrates a conceptual understanding of the interconnectedness of countries, based on knowledge of global and cultural perspectives. Understands concepts that impact nations and regions around the world including their environment, language, religions, currencies, cultures as well as their political and economic relations.	 Displays knowledge of different cultures, in-country/regional conditions and global events that may impact product safety and quality. Applies knowledge of global and cultural perspectives to increase understanding of the interconnectedness of countries. Identifies and consistently uses concepts that impact nations and regions including their environment, language, religions, currencies, culture, political and economic relations.

1.6 Global Partnerships and Arrangements	Demonstrates a broad familiarity with foreign regulatory authorities and multilateral organizations; actively develops working relationships and arrangements to achieve the FDA's mission on a global scale.	 Develops and maintains working relationships with foreign regulatory authorities. Demonstrates a thorough understanding of the impact of bilateral and multilateral agreements on FDA policy-making and on the industries regulated by FDA. Displays extensive familiarity with the goals and main activity areas of bilateral and multilateral organizations that are related to FDA's mission. Shares a deep understanding of the different types of FDA arrangements with foreign agencies, including the impact and outcome of these arrangements on achieving FDA's mission and harmonization.
1.7 Global Regulatory Collaboration	Participates through appropriate processes with representatives of other countries to reduce the burden of regulations, harmonize regulatory requirements, and achieve reciprocal arrangements. In pursuit of international collaborations, FDA utilizes a wide variety of international arrangements, such as Confidentiality Commitments, Memoranda of Understanding and other Cooperative Arrangements.	 Provides recommendations for administrative and regulatory actions concerning foreign governments and international organizations (e.g., deficiency letters, information request letters, and warning letters). Interprets applicable foreign laws, regulations, and policies to respond to inquiries or submissions of deficiencies and recommends actions. Provides authoritative advice and guidance to foreign customers to gain compliance with applicable U.S. laws, policies, and regulations. Applies extensive knowledge of FDA's regulatory paradigms, foreign regulatory paradigms and current policy issues to all assignments.
1.8 Global Information Sharing, Outreach and Training	Prepares communications, both written and oral, to respond to a wide variety of inquiries in a timely manner to multiple stakeholders and in foreign languages as needed.	 Prepares communications regarding FDA regulatory decisions or requests for information, of a global nature, from the regulated industry. Provides responses to general inquiries from the scientific community, regulated industry, consumers and others concerning global matters. Advises officials in other interrelated programs within and outside of FDA regarding inspection and investigation methods and procedures necessary to accomplish compliance, enforcement, and regulatory objectives on a global scale. In a global setting, delivers outreach messages, briefings and training through a variety of public speaking venues (e.g., conferences and workshops) in order to encourage an understanding of and compliance with Federal regulations, policies, and standards.

1.9 Global Information Analysis and Inspection	Analyzes and interprets scientific data, regulatory information, inspectional observations and other data regarding animals, drugs, food ingredients, and medical devices; draws reasoned conclusions from analysis and synthesis of information; and evaluates the importance, reliability and usefulness of information.	 Uses judgment based on personal regulatory background and understanding of legislation, policy, and program definitions in order to recognize, validate and share serious global issues. Performs regulatory reviews of information submitted by interested parties (e.g., public, regulated industry, other government agencies, foreign entities). On a global scale, inspects and reviews drugs, foods, and other regulated articles to determine compliance with requirements the FDA laws and regulations. Evaluates foreign inspectional submissions to ensure they conform to standard operating procedures. Conducts risk analysis of foreign government's regulatory programs and draws reasoned conclusions. Evaluates how foreign governments' regulatory programs impact FDA's interests. 	
1.10 Global Information Gathering	Locates appropriate sources of data and information; obtains, stores, and shares this information in support of global regulatory activities and goals.	 Obtains information from multiple databases, web-based sources, foreign governments and global entities. Consults with professionals within FDA, other government agencies, international entities, academia, and industry to gain information related to FDA's global mission. Consistently shares data, both domestically and internationally and inputs data into appropriate computer tracking systems and databases. 	
1.11 Harmonization and Multilateral Relations	Coordinates and collaborates on activities with international organizations and governments on international standards and harmonization of regulatory requirements.	 Assures consumer protection standards and requirements are me Develops and utilizes product standards and other requirements more effectively. Identifies opportunities to improve alignment of regulators resources on a global scale. Identifies new ways to minimize industry's compliance costs in the global market. Actively collaborates with international organizations and governments on international standards and harmonization of regulatory requirements to minimize inconsistent standards internationally. 	
1.12 Capacity Building	Provides technical cooperation and training activities to improve the regulatory infrastructure, preventative controls, and production practices in selected foreign countries to ensure that products exported to the Unites States meet FDA requirements.	Provides compelling information and evidence to assist FDA in making informed decisions about how to best target resources and use limited resources to support capacity building. Identifies and transfers information, methods and practices related to regulatory processes, including identifying training efforts globally that do not require the use of FDA resources. Catalyzes regional and global networks and information platforms to enable information sharing and strengthen detection, surveillance and assessment systems.	
1.13 Consumer Safety	Maintains and applies a comprehensive set of scientific and regulatory knowledge of consumer safety and related fields.	 Serves as a resource to FDA staff and others (e.g., U.S and foreign government agencies, general public) in areas related to consumer safety. Gains a comprehensive understanding of consumer safety-related issues associated with foreign products. Keeps abreast of crucial and precedent-setting issues under review within the Office, Center, Agency, regulated industry, and in the field of consumer safety. 	

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1.14 Policy Development	Articulates, writes, and integrates policies into FDA. Serves as a specialist on FDA- regulated products and the impact on international policy.	 Articulates the health, fiscal, administrative, legal, ethical, social, political and cultural implications of policy options to foreign government representatives. Analyzes foreign government's regulatory programs to evaluate how foreign governments' regulatory programs impact FDA's interests. Integrates policy into organizational plans, structures, and programs. Demonstrates a thorough understanding of the policy development process. Writes clear and concise policy-related documents, including statements, procedures, processes and decision papers. 	
1.15 Foreign Language (Desired, not required)	Displays ability to speak, comprehend, read, and/or write in a language other than English at the required level of proficiency for the job and/or social context where it is being used.	 Language proficiency rating scale: Basic, able to understand simple questions and statements allowing for slowed speech and repetition. Limited Working- can satisfy routine social interactions such as introductions, casual conversations, and limited control of grammar. Professional Working- is able to participate effectively in most formal and informal conversations or interactions on social or professional topics, display good control of grammar. Fully Professional – can use language fluently and accurately on all levels, can handle informal interpreting functions. Native/Bilingual – has knowledge of a language equivalent to that of an educated native speaker. 	
2.0 Foundational Competencies	Definition	Behaviors	
2.1 Knowledge of HHS and FDA Regulations, Policies, and Procedures	Understands and applies up-to-date regulations, policies, organizational guidance, and standard operation procedures to meet the FDA's global and domestic goals.	 Consistently and appropriately maintains knowledge and applies Federal, HHS and FDA laws, regulations, and policies as relevant to activities of responsibility. Demonstrates knowledge of current regulatory, policy, and procedural updates as applicable to job responsibilities. Ensures consistency and accuracy in the communication of regulatory, policy, or procedural information to colleagues on a regular basis. 	
2.2 Organizational Commitment	Actively achieves FDA's mission; demonstrates commitment; upholds and represents the core values of FDA; demonstrates a commitment to delivering on his/her public duty and presenting oneself as a credible representative of the Agency and Federal Government to maintain the public's trust.	 Demonstrates personal and professional integrity and presents a positive image of FDA in all interactions. Lives the FDA's values and maintains ethical principles even in the most challenging circumstances. Holds a strong commitment to exceeding the public's expectations for how the FDA should provide services to its' customers. Commits to continuous learning, maintains and develops professional expertise in area of responsibility by keeping current on technical literature and active participation in conferences, training, and internal and external working groups 	

Applies creative problem-solving skills to his/her work to develop solutions to problems; recognizes and demonstrates the value in taking "smart" risks and learning from mistakes; develops multiple alternatives and understands the feasibility of each; effectively shares and implements his/her ideas.		 Champions innovative approaches within FDA by acting as an opinion leader whom others emulate Takes "smart" risks including trying new and different ways to get the job done. Maintains an entrepreneurial spirit that breaks down barriers to promote new and creative ways to meet goals. Challenges the status quo by continuously reviewing personal work processes and questioning traditional or established processes to make improvements. 		
2.4 Interpersonal Skills/Listening	Considers and responds appropriately to the needs, feelings, and capabilities of individuals and their behavior in specific situations.	 Listens attentively to the ideas and concerns of others, responds appropriately. Uses non-verbal cues and body language to identify and interpret the feelings and concerns of others. Acknowledges the concerns and feelings of others despite disagreements, and is able to approach others about sensitive issues in non-threatening ways. Refrains from communications that devalues the feelings, ideas, or concerns of others. 		
2.5 Teamwork and Collaboration	Partners with team members and others to achieve goals; fosters cooperation within and across his/her department; treats others with dignity and respect and maintains a friendly demeanor; and values he contributions of others.	 Responds thoughtfully and appropriately to others' input and feedback to clarify thoughts, concerns, and feelings. Exceeds commitment to others by frequently delivering work early. Fosters cooperation and communication within groups and meetings to meet common goals. Is open and supportive to new ideas, perspectives, structures, strategies, positions, and protocols; proactively participates in the suggestion and implementation of new processes. Proactively addresses potential points of conflict, working when possible to reach resolution without escalation. Volunteers on committees that are outside typical job responsibilities; exceeds the expectations of his/her job in participating in FDA initiatives and programs. 		
2.6 Customer Service	Understands that all FDA employees have external and internal customers that they provide services and information to; honors all other FDA commitments to customers by providing helpful, courteous, accessible, responsive and knowledgeable customer service.	 Maintains positive, long term working relationship with clients; is adept at focusing individualized attention resulting in consistent, high-level customer satisfaction. Anticipates customer needs and responds before the situation requires action. Regularly updates understanding of customers' needs and quickly adapts solutions to changing customer demands. Consistently exceeds customer expectations by applying a solid understanding of what customers need and value. Addresses disgruntled customers appropriately and takes action to resolve problems; can defuse even the most upset customer situations with ease. 		
2.7 Communication	Presents information in a clear and concise manner orally and in writing to ensure others understand his/her ideas; and appropriately adapts his/her message, style, and tone to accommodate a variety of audiences.	 Presents verbal, written, and non-verbal forms of communication in a clear manner and consistent with FDA policies and procedures. Communicates effectively, efficiently, and respectfully with professional and technical staff as well as internal and external parties regardless of position or status. Assures accurate and substantial exchanges of information, following up to ensure information and ideas are clearly understood by receiving parties. Maintains clear and open lines of communication with peers, team leads, supervisors, and others. Drafts, prepares, edits and reviews correspondence in a 		

2.8 Diversity	Recognizes personal and societal differences, and to leverage these differences to the benefit of the team, office, and organization.	 Develops knowledge of cultural differences and sensitivities and adjusts interpersonal inactions and behaviors to compensate for these differences. Treats all individuals with respect, regardless of culture or background, recognizing the benefit of diversity to achieve organizational mission. Builds mutually beneficial collaborative working relationships across the globe. Works as part of an inclusive workplace demonstrating the 	
2.9 Initiative	Proactively identifies ways to contribute to the FDA's goals and missions; achieves results without needing reminders from others; identifies and takes action to address problems and opportunities.	 Takes the initiative to complete assignments early; consistently exceeds expectations regarding the timing of deliverables. Successfully completes tasks with minimal guidance from his/her supervisor; rarely needs assistance from others. Demonstrates the ability to complete even unfamiliar tasks independently by adapting previously gained knowledge. Generates enthusiasm among team members for accomplishing shared goals that elevate the team and ensures FDA's success. Focuses on achieving results, rather than activities that may not add value. 	
2.10 Project Management	Effectively manages project(s) by appropriately focusing attention on the critical few priorities; effectively creates and executes against project timelines based on priorities, resource availability, and other project requirements (i.e., budget); effectively evaluates planned approaches, determines feasibility, and makes adjustments when required.	 Accurately anticipates resource requirements even when faced with the most complex projects. Possesses exceptional planning skills and helps others in project planning to ensure they are able to develop feasible work plans. Establishes and builds agreement among project team members for project milestones, and takes actions to ensure timelines are met or exceeded. Develops contingency plans during the planning phase of a project by anticipating risks to the project plan. Provides ongoing project updates regarding progress to keep others informed of status and issues. 	
3.0 Leadership Cluster	Definition	Competencies	

1. Vision: Takes a long-term view and acts as a catalyst for organizational change. Builds a shared vision with others.
Influences others to translate vision into action. 2. External Awareness: Identifies and keeps up-to-date on key national and international policies and economic, political, an social trends that affect the organization. Understands near-term and long-rang plans and determines how to best be positioned to achieve a competitive business advantage in a global economy. 3. Creativity and Innovation: Develops new insights into situations and applies innovative solutions to make organizational improvements; creates a work environment the encourages creative thinking and innovation. Designs and implements new or cutting-edge programs and processes. 4. Strategic Thinking: Formulates effective strategy of the organization in a global economy. Examines policy issues and strategic planning with a long term perspective. Determines objectives and sets priorities, values, and other factors. 5. Masters new technical and business knowledge. Recognizes own strengths and weaknesses. Pursues self-development. Seeks feedback from others and opportunities to master new knowledge. 6. Resilience: Deals effectively with pressure. Maintains focus and intensity and remains optimistic and persistent, even under adversity. Recovers quickly from sethacks. Effectively balances personal life and work. 7. Flexibility: 10 per change and new information, changing conditions, or unexpected obstacles. Adjusts rapidly to new situations warranting attention and resolution. 8. Service Motivation: Creates and sustains an organizational culture which encourages others to provide the quality of service essential to high performance. Enables others to acquit tools and support they need to perform well. Shows a commitment to public service. Influences others toward a spir of service and meaningful contributions to mission accomplishment.

3.2 Leading People	Designs and implements strategies that maximize employee potential and foster high ethical standards in meeting the organization's vision, mission, and goals.	Conflict Management: Identifies and takes steps to prevent potential situations that could result in unpleasant confrontations. Manages and resolves conflicts and disagreements in a positive and constructive manner to minimize negative impact. Leveraging Diversity: Initiates and manages cultural change within the organization to impact organizational effectiveness. Values cultural diversity and other individual differences in the workforce. Ensures that the organization builds on these differences and that employee are treated in a fair and equitable manner. Team Building: Inspires, motivates, and guides others toward goal accomplishments. Consistently develops and sustains
3.3 Coalitions and Communication	Explains, advocates, and expresses facts and ideas in a convincing manner. To negotiate with individuals and groups internally and externally. The ability to develop professional networks with other organizations and to identify the internal and external politics that impact the work of the organization.	 Oral Communication: Makes clear and convincing oral presentations to individuals or groups. Listens effectively and clarifies information as needed. Facilitates an open exchange of ideas and fosters an atmosphere of open communication. Written Communication: Expresses facts and ideas in writing in a clear, convincing and organized manner. Influencing/Negotiating: Persuades others. Builds consensus through give and take. Gains cooperation from others to obtain information and accomplish goals. Facilitates "win-win" situations. Partnering: Develops networks and builds alliances. Engages in cross-functional activities. Collaborates across boundaries and finds common ground with a widening range of stakeholders. Uses contacts to build and strengthen internal support bases. Political Savvy: Identifies the internal and external politics that impact the work of the organization. Approaches each problem situation with a clear perception of organizational and political reality, recognizes the impact of alternative courses of action. Interpersonal Skills: Considers and responds appropriately to the needs, feelings, and capabilities of different people in different situations. Is tactful, compassionate and sensitive and treats others with respect.

Assessing the Importance of Tripartite Global Health Partnerships: Conducting a Nested Empirical Approach

Eduardo J. Gómez

In recent years, tripartite partnerships between multilateral health agencies, ministries of health, and civil society have been viewed as important for building and sustaining the creation of national AIDS programs. This article critically examines this argument. In so doing, it uses a new database the author created measuring the presence of these tripartite partnerships and their effects on AIDS program spending. Statistical evidence suggests that these partnerships do not affect AIDS spending. The case of Brazil is then used to further examine various theoretical schools of thought as well as these statistical results at the domestic level, with the use of qualitative case study evidence. Findings from Brazil further confirm this negative cross-national statistical finding, while highlighting other factors that may account for why governments decide to engage in ongoing AIDS spending, such as the state's efforts to proactively seek out and strengthen preexisting partnerships with NGOs, while strategically using increased domestic AIDS spending as a means to bolster the government's foreign policy aspirations.

INTRODUCTION

In recent years, a consensus has emerged suggesting that in order to achieve the most equitable and effective domestic policy response to health epidemics, a cooperative tripartite partnership should be formed between multilateral donors, ministries of health, and civil society. Indeed, scholars suggest that these tripartite partnerships are important for obtaining the financial resources needed to fund public health programs. to prioritize and increase domestic policy spending –especially for previously neglected diseases— and to establish cooperative relationships between multilateral donors, governments, and civil society over the sharing of information, ideas, and resources.² These partnerships not only provide donor funding and support for governments to create and implement policy, but often donors also require that NGOs be well-funded and that governments increase spending for NGO program development.³ Moreover, through the Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria's (henceforth. Global Fund) close partnership with NGOs via its Country Coordinating Mechanisms (CCMs), there has been an expectation and evidence suggesting that governments have, because of the Global Fund and NGOs' increased discussion of neglected diseases and proactive awareness campaigns, increased government spending for neglected diseases, such as tuberculosis.4 However, most of the literature discussing the important roles of tripartite partnerships provides only qualitative case study illustrations of their importance.

To the author's knowledge, however, no cross-national statistical analysis of the importance of tripartite partnerships for domestic public health spending has been achieved. Introducing a new database that, to the author's knowledge, is the first to quantify and analyze the presence of tripartite partnerships in global health, this study introduces statistical evidence suggesting that these partnerships may not have as strong of an impact on domestic spending for AIDS prevention and treatment. The purpose of this article, then, is to assess the impact of tripartite partnerships on domestic spending rather than assessing their effects on policy effectiveness.⁵

This article attempts to fill in this lacuna in the literature by combing both cross-national statistical and in-depth qualitative case study analyses to assess the impact of tripartite partnerships on national AIDS program spending — which includes both prevention and treatment policy. To that end, this study is motivated by the following research question: at a broader cross-national level, do tripartite partnerships really matter for increasing domestic spending for national AIDS programs? Contrary to what the aforementioned literature predicts, statistical results from a binary logistical regression seems to suggest that these tripartite partnerships do not influence domestic AIDS spending and that other factors may be more important.

What, then, are these other potential factors? To answer this question, this paper adopts a nested analytical approach to comparative analysis by combining crossnational statistical analysis with qualitative case study analysis.⁶ The case of Brazil is introduced in order to further examine the importance of tripartite partnerships on AIDS spending. Despite the presence of such a partnership between the World Bank, the Ministry of Health, and AIDS NGOs, the case of Brazil suggests that this partnership was not important for national AIDS program spending and that two different causal factors may have been more important: aggressive AIDS bureaucratic efforts to partner with and strategically use NGOs as a means to justify increased domestic spending, which was, in turn, facilitated by the strengthening of pre-existing state-civil societal partnerships in response to AIDS; and the government's strategic use of AIDS policy scale-up as a means to increase its soft power influence in global health.

METHODOLOGICAL APPROACH

This article employed political science methods emphasizing nested analysis in comparative policy research.⁷ In this approach, the researcher begins with a Large-N statistical analysis in order to confirm or disconfirm specified theoretical frameworks. Next, qualitative case studies are used to further analyze and test the efficacy of those theories examined with cross-national statistical analysis,⁸ or, alternatively, to further disconfirm these theories with the goal of devising alternative hypothesis. The latter is the approach taken in this article, as the case of Brazil further confirmed the cross-national statistical findings' refutation of the aforementioned theoretical literature while proposing alternative reasons for why government's engage in ongoing AIDS spending.

The case of Brazil was selected for several reasons. First, Brazil was selected because of its well-known reputation for having a successful government response to HIV/AIDS, with a comparatively low level of AIDS prevalence and policy innovation. By selecting this case, the author was able to critically analyze a country that succeeded in increasing policy spending and, therefore, to assess the various international and domestic factors that contributed to this spending. Following the suggested advantage of selecting case studies based on their known values on the dependent variable, through the successful case of Brazil the author was able to further examine the case study and discover an alternative explanation for why Brazil's government engaged in ongoing spending, apart from tripartite partnerships. Second, the case of Brazil was chosen because of the ease of finding published materials that explained the reform process, thus providing the author with several different perspectives and empirical data. Finally, Brazil was chosen because of the author's strong familiarity with the case, the ability to

read documents in Portuguese, and thus use primary literature when making empirical claims.

With respect to the data used for statistical analysis, this study introduces the first attempt to collect cross-national data on the presence of tripartite partnerships in response to AIDS. The data used to create this database was obtained from multiple online search engines and news databases translating articles written in foreign languages, by topic and date, such as *Access World News* and *World News Connection*. We carefully coded a total of 55 nations. Following a method of *process tracing*, we carefully searched these articles for those governments, multilateral donors, and civil societal actors that were committed to creating and sustaining tripartite partnerships.

Drawing from evidence obtained from hundreds of primary and secondary news articles, newspapers, and reports (obtained through the aforementioned databases), we then assigned weighted binary scores of "o," "o.5," and "1" to each of the 55 case studies, in turn measuring the extent to which these tripartite partnerships were present. A score of "o" indicated the absence of a tripartite partnership; o.5 indicated a partial partnership, such as either a partnership between multilateral donors and the state, or just the state and civil society, never all three; a score of "1" affirmed the presence of a tripartite partnership. Our rationale for coding cases in this manner is based on *Fuzzy Sets* methods in qualitative case study research¹¹, which establishes scores based on necessary and sufficient conditions. We were cautious not to double count news articles translated through these search engines, carefully reading each sentence and coding rather than assigning scores based on the number of times "key words" appeared in the articles - this helped us to avoid potential over representation and, therefore, inaccuracy in our binary scoring.

The remaining statistical data for our dependent variable of interest, i.e., domestic spending for national AIDS programs (which includes spending for prevention and treatment policies), was obtained from the WHO World Health Statistics Report (2012). The remaining quantitative data, such as the amount of overseas development assistance nations received for their healthcare systems, GDP per capita, government expenditures for health as a percentage of total government expenditures, and the numbers of physicians present was obtained from the WHO, UNAIDS, IMF, and World Bank public databases.

ASSESSING TRIPARTITE PARTNERSHIPS IN GLOBAL HEALTH

In the literature, it is often argued that partnerships between multilateral donors, ministries of health, and civil society facilitate domestic policy responses to health epidemics, such as obtaining donor funding for programs, priority agenda setting and increased spending for specific diseases (especially those that have been previously neglected), and information and resource sharing between donors, governments, and civil society. This is mainly due to the fact that the scientific and financial complexities of responding to diseases are often too financially and technically difficult for nations to respond on their own. Instead, the underlying assumption is that governments should take advantage of the opportunity to establish partnerships with multilateral donors through policy advice, the provision of financial resources, and technical assistance, in turn facilitating their ability to finance and implement policy. In turn facilitating their ability to finance and implement policy.

In those studies examining global health partnerships, one area of research examines the benefits of public-private partnerships in response to public health challenges. This literature often refers to international health organizations, such as the WHO, while the private sector often refers to pharmaceutical companies and/or non-state actors, such as NGOs. Of particular interest has been how these public-private partnerships facilitate medical research, government access and the provision of essential medicines. While agencies such as the WHO often realize that providing access to medicine is enhanced through partnerships with the private sector, the latter, in turn, have incentives to work with the WHO, as this enhances their social image while granting them access to government officials — and thus, potential business. Partnerships with the private sector have also been pursued by other multilateral agencies, such as UNAIDS. Since its inception, UNAIDS has worked closely with pharmaceutical companies as well as ministries of health to provide antiretroviral (ARV) medication.

In recent years, multilateral donors have sought to strengthen their partnerships with ministries of health within nations by incorporating the latter's views into donors' policy prescriptions, while at the same time granting health ministries greater policy-making autonomy.²¹ Since 2004, for example, the World Bank has adopted what it calls a Comprehensive Development Framework (CDF).²² The CDF's goal is to achieve poverty reduction by not only suggesting new policies, such as providing resources and opportunity for the poor, giving voice to the poor, and enhancing their individual security, but also by "helping governments to take the lead in preparing and implementing development strategies that are 'owned' by the country"²³; this, in turn, creates incentives for governments to implement policy.²⁴

Others claim that global health partnerships have helped ministries of health to gradually develop the administrative capacity needed to effectively finance and implement health policy. Lorenz (2007) maintains that partnerships between the World Bank and ministries of health have helped the latter to strengthen their budgetary and planning processes.²⁵ Moreover, multilateral agencies' imposition of conditionalities for continued AIDS funding has also behooved ministries of health to increase their transparency in how they use funding, their willingness to monitor the progress made in effectively using funding and to implement policy.²⁶ Lieberman (2009), Gauri and Lieberman (2006), Gómez (2010), and Nunn (2009) have also found that this kind of partnership helped nations, such as Brazil, to develop the administrative and technical capacity needed to implement AIDS prevention policies, incorporate NGOs as key stakeholders in the policy implementation process, and increase government spending for NGO activities.²⁷

Tripartite partnerships established by multilateral health donors, such as the Global Fund, have also been perceived as important for fostering ongoing government spending for HIV/AIDS, tuberculosis, and malaria. For example, Gómez and Atun (2013) have argued that the cooperative partnership between the Global Fund, Brazil's National TB Program, and NGOs incentivized the national government to increase spending for TB prevention and treatment policy.²⁸ Working with the Global Fund increased TB officials' notoriety and influence within government, given their new level of international attention and support.²⁹ Working closely with civil society also bolstered their legitimacy and ability to secure legislative funding for prevention and medical

treatment.³⁰ The Global Fund and civil society's involvement also helped to increase the government's attention to TB.³¹

Finally, in recent years multilateral donors are becoming increasingly committed to establishing partnerships with NGOs. While some organizations, such as the World Bank, have engaged in partnerships with NGOs since 1981 (through operational norms on the incorporation of NGOs and the World Bank-NGO Committee initiative),³² most donor agencies have only recently made it a priority to establish partnerships with NGOs while mandating governments to permanently incorporate them into the loan and/or grant application process.³³

Statistical Model of Tripartite Partnership and AIDS Spending

 γ Government AIDS Spending = β TRIP + β AIDSPrev + β AIDSdeaths + β ODAaids + β GDP + β GovExpenHealth + β Phys + α

An Empirical Assessment of Tripartite Partnerships

While the aforementioned theories seem to suggest that tripartite partnerships have been important for increasing domestic spending for AIDS, does cross-national statistical evidence support these claims? To answer this question, a binary logistic model is introduced – see above. The underlying assumption in this model is that the presence of a tripartite partnership (denoted by the TRIP variable) is important for predicting levels of government spending for AIDS prevention and treatment (denoted as Government AIDS Spending). In this model, I controlled for several factors that could have potentially accounted for cross-national variation in government spending, such as the prevalence of AIDS cases (AIDSPrev) and deaths (AIDSdeaths), which could instill fear in government officials; the amount of multilateral and bilateral overseas development assistance received for AIDS (*ODAaids*), which could suddenly increase a government's financial capacity, and thus commitment, to financing AIDS policies; expenditures government **GDP** (GDP)and government for healthcare (GovExpenHealth), both of which may positively influence the government's financial ability and commitment to AIDS spending; and finally, the amount of human resources available, e.g., number of physicians present (Phys), which could motivate government officials to increase AIDS spending because of the perceived high level of human resources and therefore implementation capacity. In this model, I expect the coefficient estimate and t-distribution of the TRIP variable to be more significant than the other variables in accounting for variation in government AIDS spending.

As the table in the Statistical Appendix illustrates, however, this does not appear to be the case. The coefficient estimate for the *TRIP* variable was not statistically significant. Instead, the controlled variable, *AIDSdeaths*, was significant, yielding a coefficient estimate of 6.035, at the 0.01 level. Neither of the other control variables were statistically significant. Interestingly, the level of overseas development assistance for AIDS (*ODAaids*) did not have any effect on prevention and treatment spending, in turn questioning the importance of multilateral AIDS funding for domestic policy spending.

The significance of the *AIDSdeaths* variable suggests two things. First, governments do not engage in AIDS spending until the virus possesses a clear threat to society. And second, that the determinants of government spending are mainly based at the domestic, not the international, level.

To further examine the validity of the aforementioned theories emphasizing the importance of tripartite partnerships, as well as the validity of these statistical findings, I now turn to a qualitative case study of Brazil. Including this case study helps to further evaluate these theories and these statistical findings, while considering if other domestic factors were important in accounting for the Brazilian government's increased spending on AIDS prevention and treatment policy.

BRAZIL'S RESPONSE TO AIDS

Despite the government's delayed response to AIDS during the 1980s, within ten years Brazil developed a strong national AIDS program. Spending for AIDS prevention, which included public awareness campaigns, condom distribution, and assistance to at-risk groups, such as women and the gay community, increased throughout the 1990s.³⁴ With respect to AIDS treatment, by 1996 Brazil developed the world's first federal law mandating the universal distribution of ARV medication.³⁵ Spending for ARV medication continued over time, from US\$ 224 million in 1997 to US\$ 395 million in 2005.³⁶

Realizing that challenges of implementing AIDS policies within a decentralized context, the government also created policies that aided local governments in their ability to fund and implement prevention and treatment programs. In 2003, the Brazilian Ministry of Health (MOH) created the *Fundo-a-Fundo Incentivos* program. This program provides financial grants to those state governments experiencing shortfalls in AIDS funding, due mainly to fiscal deficits and debts.³⁷ These grants are conditional, however, requiring state government adherence to MOH guidelines – and as such, bolstering the central government's ongoing policy influence.

But to what extent was this policy response the product of Brazil's tripartite partnership, that is, between multilateral donors, the MOH, and NGOs? In 1992, the MOH approached the World Bank for a loan to help fund the MOH's AIDS prevention and treatment policies.³⁸ Approved two years later for an initial loan of US\$ 120 million, the MOH also worked with NGOs in order to use the Bank's money for NGOs' various prevention campaigns.³⁹ A tripartite partnership between the MOH, the World Bank, and NGOs was formed.⁴⁰ Nevertheless, while World Bank funding did help to finance the initial costs for administrative staffing, technical assistance, and prevention,⁴¹ by the late-1990s the largest source of funding came from Brazil's National Congress, which steadily increased and eventually outpaced World Bank funding. 42 This spending, which was minimal during the 1980s and early-1990s,43 was the result of AIDS officials' ability to increase their legitimacy and influence through their partnerships with AIDS NGOs, in turn motivating Congress to increase spending for their programs. Indeed during the 1980s, because of this low level of spending and thus lack of access to effective prevention and especially drug treatment programs, AIDS NGOs, activists, and even AIDS officials were highly critical of the national AIDS program and pressured Congress for more spending.44 These occurrences underscored the fact that the tripartite partnership formed between the World Bank, the national AIDS program, and NGOs

was not the main reason why domestic AIDS spending eventually surpassed World Bank funding.

Moreover, by the early 2000s, the national AIDS program had already developed a very high level of expertise and experience in prevention and treatment policy, so much so that the MOH started providing technical support to several African nations.⁴⁵ Thus, in contrast to the aforementioned literature emphasising the importance of tripartite partnerships, this type of partnership does not seem to have been important for Brazil's on-going AIDS policy spending.

Instead, what seemed more important was AIDS officials' commitment to strengthening their preexisting partnerships with NGOs. As several scholars note, this partnership between AIDS officials and NGOs had a long history in Brazil, emerging during the end of the military dictatorship, predating the involvement of the World Bank and other donors.⁴⁶ It was indeed the outgoing military government's allowance of the formation of NGOs, such as GAPA (Grupo de Apoio á Prevenção á AIDS), Pela VIDDA (Grupo pela Valorização, Integração e Dignidade do Doente de AIDS), and the sanitarista health movement to form and collectively respond to AIDS, which some claim was done in order to increase the military's legitimacy and support, 47 when combined with the military's recruitment of sanitarista leaders and AIDS NGO activists into the national AIDS program in 1986 that allowed for this partnership to emerge.⁴⁸ Over time, AIDS officials started meeting more frequently with NGO leaders, AIDS and sanitarista activists, gradually strengthening their preexisting networks of support;⁴⁹ moreover, this was facilitated by the fact that most officials working within the national AIDS program were previously NGO leaders and had strong ties with NGOs and the sanitaristas.50

In a context of democratic deepening and commitment to civil societal needs as well as electoral accountability, AIDS officials' strengthening of their partnerships with NGOs provided these officials with the legitimacy and credibility needed to justify ongoing spending for AIDS prevention and treatment policies.⁵¹ Because of the AIDS NGOs' success in drawing international and domestic attention to AIDS; because of their growing popularity in fighting for anti-discrimination and human rights; and because of the prevailing international normative commitment of integrating the views of civil society into the AIDS policy-making process, those AIDS officials working with NGOs gained a great deal of political popularity and support both within and outside of government.⁵² AIDS officials strengthened their partnerships by not only inviting NGOs to important national policy-making committees, such as the National AIDS Commission, but also by periodically visiting NGOs and other supportive community-based organizations.⁵³ These endeavours provided AIDS officials with the legitimacy and influence needed to continuously garner funding from Congress.⁵⁴

The government's ongoing spending for AIDS prevention and treatment can also be attributed to its foreign policy aspirations. Stemming from a long history of global health diplomacy, where governments since the early-20th century aspired to reveal their scientific and policy progress to bolster Brazil's international reputation in eradicating disease,⁵⁵ a similar dynamic emerged for AIDS.⁵⁶ By the late-1990s, AIDS officials worked with the Ministry of Foreign Affairs (MFA) to attend international meetings and discuss the government's success in introducing innovative prevention programs, as well as the 1996 federal law mandating the universal distribution of AIDS medicine.⁵⁷ In addition, in an interview with the author, former Brazilian President

Fernando Cardoso told the author that he was committed to using an increase in AIDS spending and policy innovations in order to bolster Brazil's international reputation and credibility as a state committed not only to disease eradication, but also human rights in access to medicine.⁵⁸ What's more, President Luiz Ignacio "Lula" da Silva also frequently met with MFA and AIDS officials to learn about the national AIDS program's success, policy experiences which he then discussed at meetings within multilateral institutions, such as the UN and the African Summit;⁵⁹ much like Cardoso, this was done in order to further solidify Brazil's international reputation as a government committed to eradicating AIDS and meeting the needs of civil society.⁶⁰

In essence, Cardoso and Lula's goal was to show the world that Brazil was acting in accordance with long-standing international normative expectations that good governments are those that meet the healthcare needs of civil society, and that governments should introduce policies that safeguard individual access to medicine as a human right. This was a normative principle and expectation that a host of nations agreed to since the Alma-Ata Declaration of 1978,⁶¹ which was subsequently adopted by multilateral health agencies, such as the WHO and UNAIDS.⁶²

With a heightened level of international attention and support, in 2003 for example, Bill Gates awarded Brazil with a prize for having the best model response to AIDS, the Lula administration used this attention and the government's policy success as a "soft power" strategy, that is, positively influencing policy choices in other nations by illustrating Brazil's policy success, while educating health officials in other nations – especially Africa – on how to develop pharmaceutical labs, drugs, and the importance of prevention policy. Brazil's success has also facilitated the government's ability to provide technical advice to multilateral health agencies, such as the Global Fund and the World Bank. Over the years, these soft power strategies, periodically reinforced and inspired by international recognition, have continued to generate incentives for the National Congress to fund AIDS prevention and treatment policies. 64

CONCLUSION

With the introduction of a new database that, to the author's knowledge, is the first to quantify and analyze the presence of tripartite partnerships in global health, this study has introduced statistical evidence suggesting that these partnerships may not have as strong of an impact on domestic spending for AIDS prevention and treatment. This evidence questions a large body of the aforementioned literature emphasizing the importance of tripartite partnerships for public health spending, suggesting that other international and/or domestic factors may be more important in accounting for differences in AIDS spending.

Building on a nested analytical approach to social science research, this study then turned to a qualitative case study of the factors motivating the Brazilian government to engage in AIDS spending. This case was introduced in order to further evaluate the theoretical schools of thought emphasizing the importance of tripartite partnerships, as well as the statistical findings, to see if the statistical results were also upheld with qualitative evidence from Brazil. The Brazilian case further confirmed that the Ministry of Health's partnership with the World Bank and NGOs, the degree of funding and support involved, did not help to explain why the national AIDS program continued to increase spending for AIDS prevention and treatment policies; this, in

turn, suggested that other domestic and international factors may have been more important in accounting for AIDS spending.

And indeed, in Brazil, this appears to have been the case. First, what seemed to be more important in Brazil was national AIDS officials' effort to strengthen their historic partnership with NGOs in order to strategically use them to bolster these officials' legitimacy and influence when pursuing ongoing congressional funding. Second, it was the government's repeated interest in using AIDS policy spending as a means to bolster its international reputation in health that, in part, motivated the government to continue financing prevention and treatment policies. These reputation-building interests were in turn shaped by the government's long history of proactive involvement in global health as well as its efforts to enhance its global influence in the area of multilateral and especially bi-lateral assistance in AIDS. Future research should examine to what extent bureaucratic efforts to establish partnerships with NGOs and the government's foreign policy aspirations in health motivate other emerging nations to invest in AIDS prevention and treatment policy.

Despite these interesting findings, there are several limitations to my proposed analytical approach, which may provide future areas of research. First, the appraisal of the aforementioned schools of thought on tripartite partnerships in global health could have benefited from a combination of cross-national statistical as well as in-depth cross-national comparative case study analysis of the qualitative mechanisms and outcomes for several select countries, rather than just focusing on Brazil. The addition of more case studies could further evaluate the aforementioned theories and statistical findings, while providing more concrete examples of if and how tripartite partnerships contribute to domestic spending.

Second, at the global level, the author could have examined the impact of external pressures from other multilateral agencies, such as the UN and the WHO, on the motivation and performance of tripartite partnerships. Perhaps for some partnerships and countries the UN and WHO applied more scrutiny and pressure for a functional tripartite partnership, while for other countries it did not. Perhaps those partnerships that are under continued monitoring and evaluation by these external agencies are more careful to ensure that their partnership works, both to enhance the nation's credibility and obtain financial/technical support in the future. Future research will need to examine this issue in greater detail.

Finally, surely there are other factors that may account for variation in domestic AIDS spending. Differences in domestic political commitments, institutional and absorptive capacity, the impediments of stigma and discrimination between the state and civil society could also account for these differences. However, my goal in this article was to put these possibilities aside and to focus instead on the importance of tripartite partnerships in domestic AIDS spending. Perhaps a more effective approach in the future would be to combine an analysis of tripartite partnerships and these other domestic factors in order to examine which of these issues is more important in accounting for differences in spending.

For the time being, it is nevertheless hoped that the statistical findings provided in this article can stimulate new questions and issues leading to a more interdisciplinary approach to explaining variation in government AIDS spending. The statistical findings provided in this article may also suggest that the international community may not have as much of an impact on AIDS spending, and that as emerging nations – such as the

BRICS – develop, they may become more isolated and independent in seeking ways to finance AIDS and other public health policies. Recent evidence seems to suggest that the BRICS are indeed becoming more autonomous in devising and implementing health policies while striving to become global leaders in foreign aid, policy, and political influence.⁶⁵

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STATISTICAL APPENDIX

Model 1:

lm(formula = domspen ~ Trip + AidsPrev + AidsDeath + ODAaids + GDP + GovExp + Phys, data = prac

Residuals:

Min 1Q Median 3Q Max -50037903 -25461609 4714189 19496229 37871971

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-1.312e+07	3.061e+07	-0.429	0.67825
Trip	-3.415e+07	3.616e+07	-0.944	0.36960
AidsPrev	-1.270e+04	6.660e+03	-1.907	0.08882 .
AidsDeath	6.035e+05	1.273e+05	4.739	0.00106 **
ODAaids	1.665e+05	1.224e+05	1.360	0.20691
GDP	6.979e+00	2.033e+01	0.343	0.73932
GovExp	3.408e+06	2.473e+06	1.378	0.20147
Phys	1.016e+02	3.260e+02	0.312	0.76251

Signif. codes: 0 "*** 0.001 "** 0.01 "* 0.05" 0.1 " 1

Residual standard error: 38660000 on 9 degrees of freedom

(56 observations deleted due to missingness)

Multiple R-squared: 0.8766, Adjusted R-squared: 0.7806 F-statistic: 9.132 on 7 and 9 DF, p-value: 0.001811

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Casualties of War: Polio and the Golden Millimeter

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Polio, the archetypal disease of poverty was within a millimeter of complete eradication, thanks to incredible efforts of global-local cooperation and political will. But in recent years that goal appears to be receding: new cases have been found in Iraq, Syria, Somalia and Afghanistan – in locations that had long been declared polio free. It appears that instead of vanishing, polio has been transformed into a lever of ideological conflict, now specifically confined to countries experiencing internal struggles linked to Islamic extremist armed groups and other strains of fundamentalist Islam.

This article systematically examines how the polarizing conflict between Salafist groups and global interests has affected broad patterns of polio transmission since 2001 – and how these epidemiological patterns to some extent mirror the expansion and cross-fertilization of extremist ideologies. The article then explores the implications of this new paradigm for the success of polio eradication and similar development efforts in fragile states, and concludes that the eradication drive might benefit from a shift from a high-profile campaign approach to a more holistic strategy integrated with the local hierarchy of needs in charged ideological settings. Traditional strategies centered on national ownership, that emphasizes state actors and institutions can lead to counterproductive fallout, and so international agencies need to place greater emphasis on inclusive ownership to engage a fuller spectrum of state and non-state actors in fragile states and transitional environments.

INTRODUCTION

In 2014, polio re-emerged in Iraq and Syria after a 14-year absence.¹ Confirmation by the World Health Organization (WHO) of two cases near Baghdad, Iraq's capital, in April 2014, and a cluster of cases in Deir Ezzour, in Syria's heartland, in March 2014, represented a serious setback for the global polio eradication drive and for the entire Middle East and North Africa (MENA) region, which had been polio-free for more than a decade. These most recent announcements follow the confirmation of two cases of wild poliovirus in Kabul, Afghanistan in February 2014, the first seen in the capital in over 13 years. Somalia also saw an outbreak in April 2013, after the Horn of Africa had celebrated five polio-free years. Poliovirus originating in northern Nigeria is still spreading from Al Shabaab-held territories across an "importation belt" of countries over the Horn.

The MENA outbreak was an avoidable tragedy for already beleaguered peoples. But the resurgence has other implications, far more broad reaching, both for the global efforts to eradicate polio, as well as for the stability and human security of the affected populations.

Polio was once considered to be within a millimeter of extinction, dragged to the brink of eradication by science and arguably the largest collaborative human effort in history. Once termed a "disease of poverty," the ancient virus has proved vulnerable to a massive force of global-local cooperation over the last quarter of a century, driving it out of the world's poorest populations. However, within the last decade, the fate of this old enemy has become tangled with another, quintessentially modern battle. In recent years, instead of vanishing, polio has been transformed into a lever of ideological conflict, now specifically confined in its indigenous form to countries experiencing internal struggles linked to Islamic extremist armed groups and other strains of fundamentalist Islam.

Prior to 2014, the last three tenacious zones of indigenous polio transmission on earth are in northern Nigeria, where Boko Haram recruits its members, in Pakistan's northern border regions, where Taliban supporters operate and across eastern Afghanistan. These areas are infecting other zones hosting similar ideological profiles. Before the outbreaks in Somalia, Syria and Iraq in 2013, the Nigerian strain of the virus was also detected as having been imported in Mali in 2011, before the takeover of northern territories by the MNLA and Ansar Dine, suggesting importation into the region concurrent with the growth in the extremist movement.²

This article examines how the polarizing conflict between Salafist groups and global interests has affected broad patterns of polio transmission since 2001 – and how these patterns to some extent mirror the expansion and cross-fertilization of extremist ideologies. It also explores the implications of this new global-local paradigm for the success of polio eradication and similar development efforts in fragile states, and draws some implications for the strategy to achieve the "golden millimeter". The article concludes that the eradication drive might benefit from a shift from a high-profile campaign approach to a more holistic strategy integrated with the local hierarchy of needs in charged ideological settings. In this way it may be possible to mitigate the overemphasis on polio over other priorities that have too often made polio a point of contention and resistance, rather than an issue of shared concern. This would be a particularly critical consideration should the virus perpetuate in Syria, Iraq and other emerging hotspots, forcing a shift from outbreak response to longer-term campaigning.

Beyond the polio arena, the article further indicates that general development approaches need rethinking in contexts where hardline Salafist ideologies are competing for legitimacy and power-bases. Traditional strategies centered on national ownership emphasizing state actors and institutions can lead to counterproductive fallout. International agencies need to place greater emphasis on inclusive ownership, to engage a fuller spectrum of state and non-state actors in fragile states and transitional environments. To support such a shift in development strategy, the United Nations (UN) and international community would need to establish a long-term presence within vulnerable Islamic communities, to build trust based on mutual understanding rather than "parachuting" in for crises or to further specific global program agendas.

THE GOLDEN MILLIMETER

In 1988, the World Health Assembly passed a resolution to eradicate polio, launching the Global Polio Eradication Initiative. By September 2001, after 23 years and an investment of \$3 billion dollars, humanity was at the point of completely eradicating a

disease for only the second time in history (smallpox being the first). Polio, an ancient and terrifying virus that once crippled or killed 1,000 children per day, was by autumn 2001 on the verge of extinction. Cases had dropped by more than 99%.³ The US Centre for Disease Control and Prevention (CDC) reported 537 polio cases in 2001, compared to nearly 3,000 the year before. The number of countries reporting indigenous transmission of the virus also halved that year, from 20 to ten.⁴

As the poliovirus vanished from Europe, the Americas and the Asia-Pacific region, transmission was driven back into a few dark reservoirs, shining the spotlight on the world's worst human security failures. By 2003, at the onset of war in Iraq, indigenous polio was confined to two distinct types of area: conflict zones (Somalia and Afghanistan) where access for vaccinator teams was difficult and dangerous, and the poorest regions on earth with the worst development indicators: the northern governorates of Nigeria, its impoverished neighbor Niger, Cairo's high-rises, the poorest reaches of Pakistan and the teeming slums of Uttar Pradesh and Bihar in India.⁵

The eradication drive made astonishing gains in what had been considered "impossible" poverty zones, particularly India. That country's northern states were once thought likely to be polio's final redoubt on earth, hiding behind sheer population numbers, appalling sanitation and widespread child malnutrition. Scaled-up outreach efforts to build public trust and increase participation in vaccination campaigns began to have a marked impact on vaccination uptake. India was finally declared polio-free in January 2012 – the last country with indigenous transmission to achieve this difficult goal.⁶

In polio's conflict zones, formidable political will transformed immunization campaigns into cornerstones for broader peace and demobilization initiatives. The door-to-door vaccination drive appeared to have a unique power to unite the bitterest of rivals by finding a shared set of values around which to rally. Newspapers and commemorative books carried moving images of warlords facilitating access to battlegrounds, of health workers stepping unmolested over rows of Kalashnikovs to reach children behind the frontlines.⁷ In Sierra Leone, a national polio drive was among the first joint undertakings of government and Revolutionary United Front forces following the Lomé Peace Accords;⁸ further ceasefires were specifically brokered in the years following to allow campaigns to continue, supporting the broader peace process.⁹ These powerful demonstrations of the campaign's capacity to find common ground in the least promising of circumstances made headlines – and, more importantly, helped endemic Somalia successfully stop polio transmission in 2005 despite ongoing civil war and almost absent child health services.

Thus, in 2012, the polio eradication was hoping to cross the so-called "Golden Millimeter" – the final 0.01% before total eradication was achieved. By year-end there were only 223 cases reported, and the disease was tightly confined to three endemic countries of Afghanistan, Pakistan and Nigeria, with a small cluster of importations into two others. ¹⁰ But these three countries were already proving perversely immune to the same eradication strategies so successful elsewhere.

A new paradigm – hardening attitudes

The devastating 2013 outbreak of polio in Somalia and the 2014 cases in Iraq and Syria highlighted three significant trends in human security that redefined the

challenges of cooperation between international and local agendas. These trends, in turn, have affected the polio eradication effort and its capacity to achieve success in the remaining endemic areas.

The first such trend is a politically motivated resistance to Western and secular objectives backed by a core cadre of experienced fighters moving internationally with pan-Islamic or jihadist motives. The war in Iraq arguably provoked what has since become the largest wave of "international" mobilization of fighters since the call to arms in 1980s Afghanistan.¹¹ There are now a growing number of professional jihadists moving from conflict to conflict within Muslim nations, in a modern effort to "reclaim" the Islamic world for the pure faith. With the apparently compelling battle cry of the violent jihadist group ISIS, Syria and Iraq have become significant magnets for international jihadist fighters. Analysis from experts in the field of trans-national jihadism suggests that over 12,000 Sunni individuals from more than 74 countries have engaged in the conflict in Syria since 2011 – the second largest number in history.¹² Approximately 70% are estimated to come from other MENA nations, while approximately 20-25% come from Europe and other Muslim populations in the Balkans and South Asia. Globally, the ranks of Jabhat Al-Nusra in Syria, and of Ansar Dine and AQIM in Mali have reportedly been swelled by battle-hardened and organized foreign militia units taking their lead from Salafist ideologies in general, and Al-Qaeda in particular.¹³

The link between disease and conflict is by no means limited to Islamic groups; armies have been transporting plagues for millennia. Returning Roman fighters brought the Antonine plague home with them, and the Mongols transported the Black Death to Europe along the Silk Road. Conflict of all kinds decimates public health systems, reduces access to essential services and deepens vulnerability to all manner of disease and malnutrition, which when coupled with mass population movement becomes a lethal combination.

But the scale of modern conflict has changed. Today, the relatively limited transnational movement of fighters should, by rights, have little or no impact on global public health drives. Adult males are typically thought to be unlikely active carriers and spreaders of common childhood viruses, since they would be either vaccinated or immune through prior exposure.

With polio, however, there are other factors to consider. During the 2011 outbreak in China, adults contracted and spread polio, indicating that immunity gaps after a long-term absence of the disease are not necessarily age-specific. ¹⁴ Due to the success of the eradication effort, polio is now increasingly rare and locally confined. This means that while the adult inhabitants of one town or village may be largely immune through exposure, those in another part of the country may be open to infection unless they received the vaccine as children. This, combined with polio's extraordinarily low case-to-infection ratio, makes the virus an easy traveller. Only one infected person in every 200 is symptomatic, rising to over one in 1,000 for poliovirus type 3. ¹⁵ An asymptomatic polio carrier can easily board flights to uninfected countries and shed the virus into local water supplies for several weeks.

Should these carriers arrive in fragile arenas such as Syria or other protracted conflict, polio will find the perfect environment to spread: fractured health networks, insufficient population immunity and security-challenged outbreak response systems. Conflict's impact on immunity is well documented, and particularly severe where

vaccination coverage was previously high. In Iraq, children exposed to the 2003 war were found to be 22% less likely to have received the polio vaccine than those living in unaffected areas over a 15-year period. In poorer Afghanistan, a massive influx of resources managed to increase overall vaccination coverage in the immediate post-war period but failed to have any impact at all in regions where insecurity lingered. It follows that any increase in movement linking polio reservoirs with conflict zones or otherwise insecure, enclaved communities presents a clear risk for polio containment.

That the case of wild poliovirus type 1 (WPV1) found in Baghdad matches the strain of the outbreak of Syria cases that were found in Deir Eizzor, an area partly controlled by Jabhat Al-Nusra, is indicative of these risks. Since January, the Western province of Anbar, which shares a border with Deir Eizzor, has been caught in intense conflict between government forces, Islamic factions and other tribal militants. More than 400,00 people have fled their homes and the violence has severely restricted humanitarian access. As a result, the last polio drive in that region in March 2014 reached less than half of its target.

In turn, the genetic sequencing of the Deir Ezzour virus linked it to areas of Pakistan where, in 2012, the Taliban leader Hafiz Gul Bahadur held the vaccination campaign hostage — banning vaccinations and killing vaccinators — for electricity provision and an end to US drone strikes.²⁰ Environmental analysis has identified related strains of poliovirus in sewage samples from Israel, the West Bank and Gaza, as well as in nearby Cairo. It is impossible to say precisely *who* transported the virus, whether combatant or civilian or from one to the other — and perhaps science would argue for civilian as a more likely case since polio travels more readily in the young. Regardless, the genetic links support a specific pattern of movement, linking vulnerable populations in Salafist strongholds where the virus is currently circulating.

The internationalization of local insurgency movements and Islamic ideological conflicts has led to a second trend. Many already conservative communities that were previously engaged in global-local cooperation have become increasingly isolated through radicalization. Salafism, the most extreme segment in the spectrum of the Islamic faith, particularly in its strictest Wahabbi manifestation, already has a predisposition towards self-isolation. The philosophy teaches that association with impure values is corrupting, and the world dominated by secular interests is seen to be at odds with the ways of the "salaf", the ancestors, and with the Prophet Mohammed's original vision. In poorer contexts, where people have been forced to adapt away from reliance on weak or non-existent government services, isolation costs little and forges stronger intercommunity bonds.

Health initiatives are not at odds with Salafist philosophy *per se*: Islam specifically forbids self-harm. Notable Islamic scholars and imams have issued pro-immunization fatwas and others have taken supportive steps to certify the oral polio vaccine as *halal* or permitted.²¹ Since its inception, the Global Polio Eradication Initiative has gone to exceptional lengths to leverage the support of global and local religious leaders, and efforts have intensified over the last decade. The polio campaign has successfully petitioned support from the Imam of Qaba, secured a pro-immunization statement from the International Islamic Fiqh Academy²² and persuaded the Grand Imam of Cairo's Al-Azhar Mosque to advise parents against heeding anti-vaccination rumors during campaigns.²³

However, the many profound ideological differences between Salafist values and those espoused by Western development models have been aggravated by a perception that the West and its allies are both insincere and untrustworthy. Local attitudes in Islam's poorest and most vulnerable zones have visibly hardened in the face of the "war on terror" and its strategies. Al-Qaeda-hunting by Western actors, inequitable treatment by their own governments and broad sympathy for the Muslim "victims" of perceived immoral hegemonic strategies have all contributed to a growing rejection of Western values.

Polio eradication in Nigeria fell prey to this post-Iraq hardening of traditional views, which enabled manipulation of a different kind by local political and religious leaders. In 2003, as part of Nigeria's convoluted power politics, leaders of the locally influential religious school (and opposition party members) Jama'atu Nasr Al-Islam were able to revive an old claim that the polio vaccine was part of a Western plot to sterilize African Muslims. Local mistrust of Western motives was quickly and easily translated into widespread resistance to vaccination and eventually an outright ban. This led to a local epidemic and the reinfection of 21 previously polio-free countries through population movement across West and North Africa's porous borders in 2004 and 2005. Second 2005.

The well-documented Nigeria polio vaccine boycott – discussed in more detail below – is a perfect demonstration of how local mistrust, fuelled by ideological opposition to Western engagement in other Islamic settings, can create complex entanglements with local political power plays to trap global initiatives. Studies have shown that the anti-Muslim allegations against the polio drive seized public imagination in Nigeria far outside the zone of the vaccination ban. During interviews with communities in parts of the north where Sharia law is still enforced, families expressed understanding of and even support for the ban despite a rising polio epidemic affecting many hundreds of children. Many referenced the invasion of Iraq and Afghanistan, and the West's support for Israel, as primary cause of their suspicion. They did not understand why the "West" would bomb their "Muslim brothers" and then travel so far to offer them free vaccines. Their suspicions were aggravated by a perceived absence of government concern for other services and regular information passed along during Friday sermons criticizing Western agendas and interventions in Nigeria and abroad. The services are proposed to the proposed and abroad.

The third, inevitable and most unfortunate consequence of radicalization and isolation is a new "legitimization" of aid-worker targeting. In a post 9/11 world, humanitarian agencies face a new and uncomfortable reality of endemic suspicion amongst their Muslim beneficiaries: their neutrality, impartiality and independence are no longer taken for granted. Controlling militias are no longer laying down Kalashnikovs to let aid workers pass, but in fact Westerners, regardless of profession, have become choice targets for political messaging. Tensions are particularly high where military forces are seen to be active, openly or clandestinely, in the same arenas as United Nations agencies and NGOs, making similar promises and delivering similar services. Kidnappings and summary executions in Iraq, Afghanistan, Somalia and other territories have limited the scope of humanitarian operations there and further eroded human security within conflict zones, with effects being felt far beyond them. The spread of hardline thinking across conflict zones to neighboring and otherwise sympathetic communities has created ideological opposition to the very presence of foreign aid workers. More and more frequently since 2003, nationals and internationals

employed by foreign agencies in Iraq, Afghanistan, Syria and Pakistan have been singled out for targeting by local militias enforcing local extremist ideologies.²⁸

Once again, the polio eradication effort has taken some of the most visible hits. Pressure had been steadily growing on the polio eradication effort in Pakistan since 2006, when cases began to rise following a historical low of 28 the year before.²⁹ The war against the Taliban had made Pakistan's Federally Administered Tribal Areas more insecure for vaccinators and increased anti-Western sentiment there.³⁰ Vaccination campaigns in Quetta and other Salafist strongholds were struggling and polio in neighboring districts began to rise.³¹ Reports that the Central Intelligence Agency had recruited a local Pakistani doctor under the guise of a hepatitis vaccination program to aid its search for Osama bin Laden fuelled the belief that Western interventions were merely covers for intelligence agendas. Once this became public news, the Taliban began to speak out even more actively against polio eradication and other campaigns with devastating effect.

In 2012, gunmen in Pakistan attacked polio vaccination teams in broad daylight, killing eight men and women. The eradication campaign in Pakistan had to be suspended, and polio slowly crept back in its no-go areas³² – as well as in epidemiologically linked Afghanistan. Access, already constrained, became even more so. Campaign monitoring suggested a fifth of children might be missed during vaccination campaigns in Afghanistan (near universal coverage is necessary to halt indigenous virus transmission).³³ Tragically, Pakistan's vaccinator deaths were soon mirrored in Nigeria. Nine female health workers were shot at health clinics located in Boko Haram operational territory.³⁴

Polio, politics and priorities

Ideologies have certainly played a major role in this unhappy trend, but they are not solely responsible. Insistence on repeated polio vaccination over other diseases of public concern has created fatigue, resentment, suspicion and resistance even without the complications of active conflict. The high-profile "flagship" approach to polio eradication by the international community has also made the initiative an equally high-profile target for local rejection and protest. And once established, this context can quickly become immune to global intervention.

The high profile, high frequency and high-funding approach to polio in Nigeria, for example, saw the polio campaign hijacked into a political struggle for legitimacy and local support. The social context was already highly sensitive; the 1996 Pfizer scandal, in which the pharmaceutical giant was accused of secretly testing a new meningitis drug on children that allegedly caused 11 deaths, had left the polio and poverty-ridden north primed with fear and suspicion.³⁵ The polio campaigns were endorsed strongly by Nigeria's born-again Christian President Obasanjo, who had recently beaten Muslim northerner General Buhari to take a second term in office. In the opposition stronghold of Nigeria's northern states, local leaders had voiced concerns regarding their lack of control over the centralized flow of polio financing. They also resented the stresses polio placed on local systems by reprioritizing scarce health resources relentlessly towards repeated vaccination campaigns.³⁶ It is hardly surprising, then, that the initial challenge to the polio campaigns came from two rising opposition figures, who achieved national and even global fame as a result.

Throughout the 16-month course of the deadlock, the boycott leaders seemed largely unmoved by the massive international advocacy effort mobilized to resolve it. The polio partners and their international investors made extreme efforts on a number of fronts, from begging the mediation of the Sultan of Sokoto – Nigeria's premier Islamic voice – to persuading the UN Secretary General to deploy his chief Africa advisor, Professor Ibrahim Gambari, to visit the northern States and open avenues for dialogue. International Islamic authorities and institutions also added their voices to the call for vaccination resumption; the Organization of the Islamic Conference passed a resolution calling for cooperation of all its members, including Nigeria, on polio eradication,³⁷ and the 15th Council of the Islamic Fiqh in Muscat condemned the ban in strong terms.³⁸

The intervention of high-level Islamic authorities was not immediately successful. The boycott supporters insisted on acting according to their own local interests rather than following non-Nigerian edicts, whether Islamic or not.³⁹ Recognizing the growing politicization of the debate, key figures from the African Union, as well as the US Secretary of State Colin Powell, both lobbied President Obasanjo to engage with the northern opposition, to clarify their underlying concerns and find some political compromise.⁴⁰ Two further interventions were likely critical: first, accommodations made by the polio partners on finding a more "acceptable" Muslim source for vaccine procured for the north and second, Saudi Arabia's imposition of a "travel ban" without proof of immunization for Nigerians wishing to make the *Hajj*.⁴¹

The Nigerian experience proved that leveraging global, "moderate" Islamic support is no longer always the key to securing the trust of poorer and more conservative local factions with their own specific interests to protect. Indeed, resistance to vaccination in Nigeria has long outlasted the ban itself. Cases rose from just 200 in 2002 to over 1,200 by 2006. And fears are growing again, particularly in parts of the north feeling the influence of Boko Haram⁴² who are similarly seeking hooks on which to hang their quest for relevance and legitimacy amongst their local constituencies.

In today's highly polarized geopolitical climate, a surge of international attention around a domestic issue in fragile states risks turning it into a flashpoint for ideological or political resistance.

Flashpoints can emerge even from a context of initial public support. During the initial onset of the Syria outbreak, demand for the polio vaccine during campaigns was reportedly high.⁴³ But in a conflict as protracted as Syria's civil war, which would demand repeated campaigns, the prioritization of polio relative to other needs could become a complicating factor. A 2013 study of Syrian families in governorates most greatly affected by conflict, including the Deir Ezzour outbreak zone, had already listed healthcare as eighth out of eleven priorities, surpassed by security, food, electricity, water, mental stresses of war and job losses.⁴⁴

In fragile contexts generally, immunization (and polio immunization in particular) is rarely at the top of community health priorities. Poor communities across polio-affected regions are more concerned about a wide range of other issues including HIV/AIDS, access to health infrastructure, prenatal care and malnutrition, according to a global study in health perceptions.⁴⁵ Communities are hard-pressed to understand why matters so important to them nonetheless receive less national attention and financing when polio receives so much.⁴⁶ There are also documented cases of local

communities resisting vaccination as a means of applying pressure to local authorities, demanding better electricity services or water supplies or electricity and other services.⁴⁷

A senior official in the Somali Ministry of Health recently expressed the common view that the emphasis placed on the polio vaccine above all of these other priorities appears self-serving on the part of the UN and NGOs.⁴⁸ In this, the eradication effort has become a victim of its own success; the diminishing incidence of polio has desensitized populations in Pakistan, Afghanistan and Somalia to its hideous results, and thus making it of little priority.

In Syria, where the delivery of humanitarian assistance has become increasingly an issue of confrontation, polio showed signs of tipping over into a polarizing political agenda. Both sides have blamed each other for the outbreak and accused each other of hindering vaccination drives, as part of the ongoing publicity war between the government and rebels.⁴⁹ Calls for a ceasefire to allow access for vaccinators and health workers have yet to be answered fully. And while the international community celebrated the destruction of Syria's chemical facilities, pleas centered on the humanitarian imperative have gained little traction from either side. As polio spread, access for outbreak response teams remains problematic in some areas,⁵⁰ with new cases reported in April 2014 in the most beleaguered regions of Aleppo and Hama, far away from the original breakout sites. The total number of laboratory-confirmed WPV1 cases in Syria remains at 36 in 2013 and 2014,51 and the WHO has admitted ongoing concerns about surveillance and immunity.⁵² The Global Polio Eradication Initiative Strategic Plan for Polio Outbreak Response in the Middle East implemented a containment program in Syria and neighboring countries as a response, with an initial objective to stop the outbreak in Syria by the end of March 2014 and prevent any further international spread. However, in May 2014, ongoing transmission picked up in Baghdad obliged the WHO to declare the international spread of polio a "public health emergency of international concern," and issue temporary travel recommendations to curtail further importations.⁵³ While the outbreak was ultimately controlled, humanitarian access remains highly restricted in contested areas, which will make it harder to identify and respond to future outbreaks.

Rethinking approaches

This combination of ideological, political and economic factors has forced the eradication effort to confront a series of near-impossible dilemmas. How can local health workers be persuaded to risk their lives for little perceived local benefit in comparison to other needs? And can a high-profile global initiative be reconciled to intransigent local forces playing out a political drama beyond its control, with built-in incentives to hold it hostage?

In the current environment, it appears that the fate of the eradication effort may now depend on the willingness of state and non-state actors to commit to principles of global-local cooperation at the very moment they are most challenged. In the case of polio, the same ideological or political stance limiting access to populations for vaccination is also facilitating the spread of the disease from conflict zone to conflict zone.

The non-endemic outbreak countries of Somalia, Syria and Iraq represent the contemporary state of polio's dilemma. In Somalia, commanders of the Salafist rebel

movement Al-Shabaab have done their best to maintain their isolationist strategy at all costs – banning polio vaccination as Nigeria once did, threatening populations and aid workers and repeating myths from Nigeria's boycott regarding the campaign's anti-Muslim agenda.⁵⁴ Somalia reported more polio in 2013 than all the other endemic countries put together, and new cases continued to arrive in 2014 although at diminished rates.⁵⁵

Despite recent setbacks, the global polio eradication campaign still has cause for optimism. Outbreaks in Somalia and Syria are neither epidemic, nor endemic, and there is no reason that they should become so. The campaign remains a global public good — a worthwhile, laudable and achievable human goal. Its sponsors, WHO, UNICEF, US CDC and Rotary International, promise the world could reap a \$50 billion dividend in health savings for a mere \$9-\$16 billion spent on eradication strategies. Two out of three remaining endemic countries — Nigeria and Afghanistan — have slowed viral endemic transmission significantly over the past twenty four months 57 although Afghanistan continues to experience transmission linked to Pakistan's wild poliorvirus. But will these strategies be enough while the virus continues to be protected and spread by those pursuing their own definition of a perfect world?

Polio eradication has become the human security equivalent of a canary down the mine – warning of difficult times ahead for traditional forms of global-local cooperation. The clash between the "will" of the Western world and the "won't" of oppositional groups espousing extremist ideologies demands some fresh thinking around how these vital initiatives should be pursued.

Whatever lessons can be learned must be learned fast. Polio cases in Syria and Iraq are another sad burden for its people – but re-establishment of the virus would be a disaster for the innocent, and its spread to other Middle Eastern countries would be catastrophic. Polio resurges far more rapidly than it is contained, and in regions where cases have not been recorded in a considerable period of time, as with the Middle East, the rigor of achieving universal vaccination coverage may well have lapsed.

Can the polio eradication prove, as it once did, that common ground can be found in the unlikeliest of circumstances? The answer is a cautious yes with caveats. Some of the burdens it carries are too broad for a health campaign, however large and well supported, to shoulder on its own. For polio eradication and its sister initiatives to survive this recent global clash of ideologies, the UN, its humanitarian agencies and its global funders must reconsider their way of doing business.

First, the polio eradication drive could consider shifting from a flagship program to a more integrated advocacy and delivery model. Given the new realities of polio zones, advocacy strategies that brought polio eradication this far might actually be counterproductive for the final, golden millimeter. High profile campaigning that used to unite communities and galvanize weary political will has put polio in the line of fire. This is particularly true where incessant rounds of polio vaccination in areas without any other adequate services ignore the obvious hierarchy of local needs. Such strategies cannot sincerely be argued as in local interests, particularly in the West Africa region where the paucity of the global response to the Ebola crisis is at stark odds with its investment in the polio campaign.

A more holistic approach that integrates polio advocacy into more convincing programs for public health and social justice, as distinct from clandestine strategies, may be more effective in winning over borderline allies. Never before has it been so important to demonstrate proportional concern to meet the urgent basic needs of vulnerable populations, and to deliver visible results. The international community is at ground zero on the trust scale with many conservative Islamic communities; this is the first step towards a more open and sincere relationship.

Second, the development community as a whole should reconsider its traditional approaches for global-local cooperation. Accepted models to date have emphasized and empowered state-actors and institutions. But in a transitional, post-conflict environment where power bases are insecure and legitimacy of state institutions far from ensured, the delivery of aid in and of itself is a partisan statement. This in turn places programs and personnel at risk of a backlash and targeting from opposition forces. The reach of "nationally owned" programs into ideologies contrasting with their own is frequently patchwork and limited, inadvertently aggravating local inequities and allowing misinformation to flow. This accusation has already been leveled in the context of food aid distribution in Syria,⁵⁸ and the polio effort, in its flurry of haste to stem the outbreak, cannot afford to further inflame that country's factionalization or incite the attention of ISIS to yet another flamboyant protest against Western objectives.

An alternative would be to consider a more open and inclusive sharing of program ownership to include non-state actors willing to enter into dialogue. Such an approach would require engagement with appropriate brokers as an extensive and detailed mapping of local political, economic and ideological interests at a microcommunity level. Incredibly, such information is rarely gathered and shared between major in-country development actors, or used to inform program design or implementation. Polio eradication, ironically, has been one of the few programs to require such detailed mapping, but this needs to be nuanced with an analysis of political and economic drivers and local power bases.

The difference between polio's trajectory in Afghanistan and Pakistan demonstrates clearly how sensitive development cooperation can be to local power balances. While polio has surged in Pakistan over the past two years, reaching a 15-year record high by the end of 2014,⁵⁹ endemic transmission fell significantly in Afghanistan over the same period. Afghanistan is now at historically low levels of polio transmission.⁶⁰ Remarkably, endemic transmission also appears to have been all but halted in the Taliban-held south (despite a case in Kandahar recorded on 1 September 2014 linked to Pakistan), once a virtual no-go area for vaccinators and until recently the epicenter of endemic transmission.⁶¹ Yet both countries have used similar advocacy strategies to win over the Taliban and their supporters. Many evolved from those approaches piloted during the Nigeria boycott: leveraging global pro-immunization Islamic voices to persuade and engage local Islamic leaders, attempting to partner with religious and other authorities to reassure local families, and working to secure local pro-immunization fatwas and other intense advocacy efforts.⁶² Pakistani authorities have printed a "fatwa booklet" collecting the broad Islamic authority in support of polio vaccination and recruited a prominent political leader once aligned with the Taliban to promote the eradication effort.63

So far, these strategies have failed to transform a life-threatening context for Pakistan's beleaguered polio vaccinators and unlock what has become the polio eradication effort's most complex political dilemma. Yet in Afghanistan, they have apparently been more successful in brokering allegiances. Intensive advocacy by the UN and its partners persuaded Taliban leader Mullah Omar to provide letters of support

enabling vaccinator access to Taliban enclaves in Helmand and elsewhere. Some members of the Afghan parliament have termed the outreach program "vaccine diplomacy," a term that harks back to the era of vaccinators stepping over weapons lain down by militants.⁶⁴ The support of the Taliban has opened once closed locations to vaccinators and vastly increased the safety of health workers during polio campaigns.⁶⁵ It has also, as once before, provided a neutral place for dialogue with the potential to extend to other issues.

Why such a profound difference between two such similar countries? The answer is, perhaps, because they are not so similar after all. In Afghanistan, the Taliban is a major power broker with deep national roots, keen to take on the authority of governance and the mantle of international recognition. In Pakistan, the Taliban are a marginalized militant group concerned with retaining absolute control over discrete geographical areas, implacably opposed to Islamabad and its Western allies with little interest in the success of Pakistan's national project.⁶⁶ Across the Af-Pak political spectrum, the word "Taliban" is a reductive description of a complex and nonhomogenous entity. Already there are areas of Afghanistan where Mullah Omar's letters are no longer effective – where Salafist groups with more rigid pan-Islamic leanings and non-Afghan memberships are pursuing their own agendas. It has taken the intervention of other neutral brokers, including the International Committee of the Red Cross and Red Crescent societies, to gain access to these areas.⁶⁷ While polio gains in Afghanistan are rightly being celebrated, all are aware how fragile those gains are, particularly in a political environment that remains highly volatile. In fact, from January to October 2014, the GPEI reports 10 confirmed cases of WPV1 in Afghanistan, up from six cases over the same period in 2013 and underscoring the ongoing risk that polio poses.⁶⁸

For polio and other global initiatives, this underlines a final, critical gap in current strategies. The UN *must* make it an institutional priority to establish long-term connections with outlying Islamic communities, particularly those opposing national powers. Salafist groups, whether locally entrenched or pursuing pan-Islamic agendas, do not view the UN and its agencies as honest brokers. Neither are they represented by inter-governmental political or religious institutions, where foreign ministers and national powerbrokers sit. Open dialogue with these and other non-state actors requires trust – and trust cannot be "parachuted" into conflict arenas simply because there is something that the international community wishes to achieve.

Polio eradication is a complex and often ingenious program that has time and again taken up the challenge of brokering relationships that the broader UN system should have forged. The sincere efforts now being made by UN actors in Pakistan, Nigeria and Afghanistan to maintain a constant human presence with entrenched communities are encouraging. The goal of this outreach is to build bridges with groups sympathetic to jihadist or extremist aims but who retain stakes in existing power systems – to harness their local legitimacy and influence to promote rather than prevent access.

And yet it is a saddening reality that as long as such outreach efforts are tagged to results-based, deadline-heavy global programs or agendas, including global polio eradication, they will always be vulnerable to backlash. The very best efforts may not be enough to protect them from the crossfire of ideological and political power struggles.

Lessons learned from other contexts have shown that local, not national, action is the best firewall against the transmission of both extreme ideologies and the poliovirus. Prevailing extremist forces have been forced to adapt before by families with deep local roots who are pragmatically invested in the future of their communities, irrespective of their ideological leanings. Deeply felt humanitarian concerns can also act as forceful motivators in such contexts. Conservative Islamic families in Somalia ignored threats and edicts to attend the summer polio immunization campaigns, risking their own lives on their children's behalf.⁶⁹ There are other examples of local needs shifting power balances outside the polio field. The once-impenetrable Iraqi province of Al-Anbar was reclaimed from Al-Qaeda in Iraq by tribal leaders who grew tired of "imported" aggressive tactics that came to be perceived as opposing local interests.⁷⁰ The "Awakening" movement, while it has no bearing on polio in itself and was in its later stages funded by US military resources, was nonetheless an interesting example of how local socio-economic interests and power relationships can trump ideological forces if the two come in conflict, and open once enclaved communities to a more pragmatic working relationship with national or foreign powers.

Ultimately, campaigns such as polio eradication serve as a visible measure of how effectively international brokers like the UN are able to engage in Salafist-dominated areas, as well as whether human security and humanitarian challenges are being met. Few other interventions require such depth of access on such a regular basis. And few others will highlight failure so clearly, with a trail of newly paralyzed children spreading from hot zone to hot zone. For this reason among many others, the polio effort deserves continued and close international attention.

The powerful human drive to unite around the innocent often requires customized and nuanced engagement to ignite in these complex ideological settings. Polio has shown before how this can be achieved. But once ignited, it must be supported and rewarded with something more lasting and meaningful from governments than just vaccine drops.

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State Agency and Global Health Governance: The Foreign Policy and Global Health Initiative

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Global health governance has been a budding academic field for the last decade and can benefit from utilizing political science perspectives in building a body of knowledge through empirical research. This approach has been applied in this study of the Global Health Initiative, also known as the Oslo Ministerial Group, a club of seven countries who in 2006 decided to jointly advance the issue of health as foreign policy. Our data suggests that it has proven to be a resilient group. The data brought forth three factors that seem to have worked as enablers in strengthening its role and impact, namely by bridging global arenas, supporting negotiation processes and influencing national policy arenas. Our findings suggest that the Initiative scores are somewhat higher on the first two factors than the third.

INTRODUCTION

A renewed focus on health and foreign policy emerged in the mid-2000s, at a time when global health initiatives were burgeoning and public-private partnerships became more the norm than the exception. The expansion of activities and resources at the global level now involves a variety of actors, "spanning the state and non-state, public and private, health and non-health sectors, and local to global levels of governance." ¹ ² ³ The emergence of global health governance and its increasing complexity of actors reflected a more general phenomenon, coined by Ruggie as a new global public domain—"an increasingly institutionalized transnational arena of discourse, contestation and action concerning the production of global public goods (...)" ⁴ Given the proliferation of institutional innovations at the global level, what more could a new form of foreign policy activism bring to the table?

For policy practitioners representing states, the expanded global health architecture brought the need for more sophisticated yet flexible skills in navigating opportunities for influence and impact in global health, also known as the practice of global health diplomacy.⁵ ⁶ ⁷ The focus on health as foreign policy was also an impetus to expand countries' global health agendas beyond the traditional concept of health aid, with increasing attempts to consider health through the lens of more multi-sector driven interfaces, such as the intersection of health and governance areas like trade and security. The impact of overlapping, conflicting, and nested sets of rules creates challenges for states,8 which the Lancet Commission on Global Governance for Health identified as an "inadequate policy space for health." The policy space refers to the state's ability as a central actor to ensure that health is taken adequately into account. Indeed, states have proven able to mould and sometimes even enlarge this space. This could be observed in the cases of South Africa and Brazil, both of whom stepped up and shaped new global norms on access to antiretrovirals (ARVs).¹⁰ These and other examples of how countries handle the health/foreign policy nexus suggest that the power that belies countries as United Nations (UN) member states is different from what global organizations can do autonomously. 12 13

This paper examines the case of the Global Health and Foreign Policy Initiative (hereafter, the Initiative), also known as the Oslo Ministerial Group, a club of seven countries who in 2006 decided to jointly advance the issue of health as foreign policy. The seven countries, Brazil, Senegal, Thailand, South Africa, Indonesia, France, and Norway had seemingly little in common. Although it shares traits with what is known as clubs in international politics, the Initiative still evades conventional international relations-derived explanations for a like-minded alliance. Coming from a political science tradition, clubs are defined as any grouping with more than two actors, less than universal participation, and not formalized as an international organization.¹⁴ Furthermore, the Initiative has no secretariat or website, and thus remains an enigmatic feature of an otherwise amply documented policy field. The substance presented in this paper is intended to go beyond the official declarations and shed light on the particular nature and dynamics of this seemingly unusual collective. Although alternative cases of renewed unprecedented activism by states in global health governance could be discussed, the case of the Initiative merits attention because it has proven resilient and visibly purports the state as a crucial actor in global governance for health.

The paper builds on empirical research and observations extending over three years, from 2009 to 2011, starting with an interview study among Norwegian policy practitioners in 2009 for a conference paper,¹⁵ and proceeding with a broader interview study in 2011 with health attachés and ambassadors of six of the seven countries who were based in their respective UN missions in Geneva at the time. The interviews were semi-structured, and lasted thirty minutes on average, covering issues such as the interaction between the national and global strategies of the Initiative's member states, institutional arrangements, and the Initiative's long-term effects on global health processes. The additional interviews from 2011 added multiple perspectives on the Initiative, as well as an opportunity to follow its activities over time. The six interviews from 2011 are referenced as numbers 1–6 and cited as (number [month-year]). Further document analysis has provided an update of the Initiative's main activities through 2014.

Our intent to follow the Initiative over time stems from an interest in bringing political science analysis to bear on the agency of states in the global health field and their interaction with global institutions. States' relations towards the global health policy domain resemble challenges in other issue areas, such as trade and the environment. Therefore, there is a potential to link up with related research agendas and theoretical debates in the scholarly fields of political science and international relations. Classical theoretical international relations concepts closely linked to global health and foreign policy have been discussed in the literature, such as the notion of power.¹⁶ Notwithstanding this panoply of exploratory or discursive approaches to the topic, we argue that the different academic disciplines that have predominantly engaged in the discourse on global health and foreign policy, like international law, public health, or other social sciences, have not yet made any joint attempts in "drawing from a shared theory on what the main components of a research agenda (...) should be". 17 This paper sets out to advance this necessary debate. The importance of state agency in relation to international structures is a defining feature of the entire field of international relations. Still, the interface of domestic politics and global governance remains a frontier for exploration and further knowledge-building, while the empirical reality has shifted towards a broadening of states' foreign policy agendas to shape and implement a growing, and often overlapping, number of international regimes. In this way, research on health as foreign policy can both draw on a larger body of research practice in other relevant

issue areas, while also contributing to empirical and conceptual insights into a shared pool of knowledge.

The objective of this paper is to examine through a political science lens what an untraditional club like the Initiative can achieve, and intends to feed into a broader discussion on the agency of states in global health governance. The paper is organized in four parts. First, we discuss clubs in international relations. Next we describe the Initiative's background and formation. The third and main part presents key features and examples of the ways in which the Initiative works. The fourth and final part summarizes the Initiative's contributions Initiative and discusses the achievements in light of existing knowledge on clubs from other policy domains.

CLUBS IN INTERNATIONAL RELATIONS

In international politics more generally, clubs—also known as minilateral approaches—are a phenomenon that have long been subject to theoretical debate and research efforts. By briefly highlighting key issues in this debate, we aim for a better understanding of the contributions, potential, and limitations of the Initiative. Building on earlier theoretical work from the 1960s, 18 scholars have observed how smaller groups of countries reach agreements more quickly, and explored questions such as: under what conditions do clubs emerge and grow; what characterizes actors who play roles as initiators and political entrepreneurs; and what types of functions do clubs provide. 19 One of the most prominent premises for club emergence is the inherent shortcomings of multilateral processes, particularly the barrier inherent in consensus rule, where the least ambitious can block progress. Clubs thus provide an opportunity to begin cooperation within a small group where agreements can be reached more easily and ambition levels can sometimes be raised. The appeal of clubs is that they can offer specific incentives, or contingent offers, to participants, the benefits of which can be expected to spread as the club extends its reach by allowing new members to ioin.²⁰

Scholars have suggested three distinct rationales or approaches for considering the difference clubs make in international relations. First, clubs can contribute to informal dialogue outside official arenas, thereby contributing to reducing the severity of interest asymmetries. Second, clubs can create member-specific incentives, thereby altering the interests of key countries who are willing or accepted to join. Thirdly, clubs can legitimate great power cooperation within the context of existing multilateral regimes, and serve as stepping stone towards more comprehensive multilateral agreements, i.e. a coalition of the willing.²¹ An assessment of minilateral approaches must take into account which of the above paths the club attempts to follow.²²

To our knowledge, the first time a club approach or a 'mini-regime' was suggested was within the United Nations Conference on the Law of the Sea in the 1970s, but the idea never materialized. Since then, global environmental governance studies have been the most advanced in looking at the phenomenon of clubs through a political science lens, particularly within the global climate change negotiations having been conducted for almost twenty-five years within the United Nations framework. The most important reasons for the emergence of a number of clubs at various governance levels here are the salience of the issue, the painstakingly slow progress in the negotiations process, and the fact that some 80 percent of greenhouse gas emissions are emitted by the G20 countries. That is, in principle, this problem can be solved by a fairly small number of actors. Researchers have mapped seventeen clubs with different forms of participation by both state and

non-state actors.²⁴ Some researchers have claimed that the aspiration of clubs should be to instigate transformative change and increase ambition levels.²⁵ ²⁶ Studies, however, have tempered such optimism, finding that although clubs make contributions to UN-led approaches and may under certain conditions speed up the process, there has yet to be a club that has instigated transformative change. ²⁷ ²⁸ ²⁹

As we make the case for the Global Health and Foreign Policy Initiative amidst a number of related cases grouped under the phenomenon of clubs, our starting point is a recognition that there is a wide variety in scope among clubs—set according to what issues or processes the group aims to influence. If a key driver of a club is to add value to a multilateral governance arena, we must also ask what transformative change entails, whether it be to reach a successful outcome of a process, or change the process and approach altogether.

THE ORIGIN OF THE GLOBAL HEALTH AND FOREIGN POLICY INITIATIVE

In 2006, seven ministers of foreign affairs created the Initiative with the explicit intention of strengthening the strategic focus on health as a foreign policy issue. In order to announce the newly constituted group and their mission, the ministers published in 2007 what is known as the Oslo Ministerial Declaration in *The Lancet*. Together, the seven countries assert that, in view of today's globalisation dynamics where foreign policy is subjected to new complex and interdependent challenges, "impact on health" should be a "point of departure and defining lens (...) to examine key elements of foreign policy and development strategies". "Impact on health" refers to the connection to other policy areas such as environment, trade, national security, and human rights. The intention is that decisions in these areas should be guided by a focus on health consequences. In addition to these ambitions for intersectoral collaboration, the declaration also sets out to explore how foreign policy can "add value" to ongoing international processes on health issues. "

The Oslo Ministerial Declaration is considered a starting point for the group's work and formulates a broad agenda for action that can accommodate almost any global health issue. The agenda elaborates on three main themes: (1) 'Capacity for global health security;' (2) 'Facing threats to global health security;' and (3) 'Making globalization work for all.'³³ These themes lead into ten areas of action, which the seven signatory countries pledged to pursue in their respective regional settings and in relevant international bodies.³⁴ The Oslo Ministerial Declaration received considerable attention and was widely cited in the following years by the global health academic and policy community.³⁵

When considering the selection of countries and the fact that the Initiative was formed by ministers of foreign affairs (and not by ministers of health), it is clear that individual professional background, experiences, networks, and leadership played a decisive role. According to then Norwegian Minister of Foreign Affairs, Jonas Gahr Støre, the formation was initiated by himself and his French colleague, Philippe Douste Blazy. Having worked earlier as chief of staff under then World Health Organization (WHO) Director-General Gro Harlem Brundtland, Støre had already been exposed to newly emerging dynamics at the interface of health and foreign policy. Since Gahr Støre's departure from Geneva, the international community had experienced SARS, negotiated its first global health convention on tobacco control, and was facing the threat of bird flu as a potential new influenza pandemic.³⁶ Douste Blazy is a medical doctor by training and had previously been the French minister of health. In this way, both ministers drew upon their established networks when inviting five additional countries for exclusive

membership. From the Norwegian perspective, the selection was based on both strategic and geographical concerns. The members represent key states in four different regions of the world, including two emerging economies (Brazil and South Africa). Some were also countries with whom Norway had cooperated on international issues or with whom it had a vested interest in strengthening its diplomatic bonds.³⁷ ³⁸ Besides these decisive factors, another significant impetus of the other five countries to join can be traced back to the personal academic backgrounds and professional experiences of all the ministers of foreign affairs, as with Gahr Støre and Douste Blazy—some were trained medical doctors, others had worked on health issues in their earlier diplomatic careers. Indeed, their common experiences enabled the seven ministers to bond in such a way that this 'personal touch' of the Initiative seems to have diffused to the countries' additional diplomatic levels.

THE FUNCTIONING OF THE INITIATIVE

When addressing the way the Initiative works, rather than a chronological account, we seek to highlight three features that stand out from the interview material: the relation of the Initiative to the UN General Assembly and the World Health Assembly; its interaction and interface with WHO processes; and lastly, the ways through which the Initiative influences policy processes in its member states. First, however, the Initiative's structure as a network among state representatives and diplomats at three levels merits attention. The most frequent level is the interaction among health attachés of the countries' UN missions in Geneva. The second level is among high level civil servants in the ministries of foreign affairs. The third network level is among the ministers of foreign affairs or health. On a rotating basis, the countries have taken on the roles of presidency and secretariat. In this way, the Initiative is not an organization like the Global Fund to fight HIV/AIDS, Tuberculosis, and Malaria or the GAVI Alliance. As one respondent noted, "(s)uch comparisons would misinterpret the institutional character of the Initiative, (which) is a network to strengthen the global health agenda" (4[Sep-2011]).

Bridging UN Arenas

The primary venues for the Initiative to set a global agenda for the foreign policy dimensions of health is where states meet, the annual World Health Assembly in Geneva and the UN General Assembly in New York.

At each World Health Assembly since the Initiative's inception, the ministers of health meet on the side lines, resulting in a ministerial communiqué issued by the member state holding the presidency of the Initiative at the time. The communiqués relate to the agenda of the WHO, awarding support to ongoing processes or issues for which there is consensus within the Initiative. A recent example is the communiqué from 2014, which includes a broad scope of issues, including universal health coverage; the relationship of health to core values of the post-2015 agenda; the link between climate and health; antimicrobial resistance; as well as violence against health workers.³⁹

The Initiative's persistent interface with the UN General Assembly (UNGA) is more unique, as global health issues are traditionally kept to the Geneva venues, while the New York setting represents the broader scope of UN concerns. A core link between the Initiative and the UNGA is the Annual Report on Global Health and Foreign Policy from the WHO Director-General to the UNGA. The report addresses

select thematic areas each year, reflected in their titles (e.g. Health, Environment and Natural Disasters in 2011; Universal Health Coverage in 2012; and the Protection of Health Workers from Violence in 2014). The reports culminate in General Assembly resolutions. Regular ministers of health meetings occur annually at the United Nations General Assembly (UNGA) in New York, at times also among the ministers of foreign affairs. To highlight the unique nature of their meetings, one interviewee rhetorically asked: "Is there any other health ministers' meeting at the margins of the UNGA? We (the OMG) meet" (1[Aug-2011]). Although these dynamics are perceived as successes by the interviewees, these closed meetings are not widely publicized and thus have so far eluded academic scrutiny. Nonetheless, there has been wide recognition that global health and foreign policy is an important topic that needs to be regularly discussed and advanced at the UNGA level.⁴⁰

Supporting WHO Processes

Another important inter-state venue is the gathering of the WHO to convene negotiation processes aiming at international agreements among member states. One such process so far in the lifetime of the Initiative is the Pandemic Influenza Preparedness Framework for the sharing of influenza viruses and access to vaccines and other benefits (the PIP Framework). This agreement is consistently highlighted in our data as an area of influence by the Initiative. The PIP Framework, which was approved by the WHA in May 2011, is considered "...a landmark in global governance for health, representing the first international agreement on influenza virus and benefit sharing" (p. 200). This outcome had been preceded by four-year long cumbersome and tense negotiations due to complex policy issues and WHO member countries with highly diverging interests, especially with regards to intellectual property rights.

The heterogeneous collective of countries and regions within the Initiative involved several important circumstances that helped them both comprehend and influence the complexity of the PIP negotiations in its microcosmic form at group level. The initial rationale to eventually launch WHO-based negotiations on influenza virus and benefits sharing dated back to the avian influenza A (H5N1) outbreaks in late 2006. The Initiative's member state Indonesia "refused to share virus specimens with WHO, claiming it was unfair to give pharmaceutical companies access," as the Southeast Asian country feared that "industry would use (such) viruses to patent vaccines and antiviral medications that Indonesia could not afford."43 Although this concern initially represented a particular negotiation stance of Indonesia, the situation reflected a fairly typical fault line between the rich northern countries protecting their interests at the expense of developing countries' needs, and an increasingly perceptible number of developing countries made use of sophisticated diplomatic ways to safeguard their interests. Besides Indonesia, Norway also played a considerable role as part of the negotiations' chairmanship, and according to interviewees, had obtained this position also as a result of preceding internal discussions among the Initiative's member states.

In understanding how the Initiative influenced the negotiations process towards the PIP agreement, a recurring issue that was mentioned in several interviews was the Initiative's capacity to serve as a trust-, confidence-, and consensus-builder among the seven member countries, where they seemed to become more sensitive to each other's political positions. The group perceives its exclusive forum as a means to discuss and understand diplomatic fault lines within the Initiative before actually being confronted with similar conflictual positions of

other countries and groups at the UN level (2[Aug-2011]; 4[Sep-2011]; 6[Dec-2011]). In this way, Initiative member states learn about the sources consensual and especially conflictual positions, which they experience as making the diplomatic day-to-day work easier, often even triggering spill-over effects from specific global health topics into other policy areas. In fact, many conflicts internally battled inside the Initiative represent a microcosm of what are often conflictual lines among northern and southern countries, as can be observed with regards to the highly controversial issues of counterfeit medicines or intellectual property rights.

Due to the group's cross-regional and distinct cross-cultural character of middle- and regional powers, member countries have the capacity to actually convince their respective regions. An interviewee described this reconciling potential of the Initiative members as follows: "(T)he cross-regional nature of the group means that we are able to breach the differences among different political groupings in the UN system" (3[Aug-2011]). Regularly, the Initiative member states decide among themselves on global health and foreign policy issues that need to be brought down to the level of regional groupings, and then take them back with new input to the Initiative. This multi-level process, which also has the potential to eventually pivot between the regional levels and the Initiative, helps to build consensus and organize negotiation positions, thereby taking the ultimate respective policy issue forward within the UN system. In reflecting on these diplomatic processes, several interviewees asserted that this way of conducting diplomacy may become even more important in the future, as today's UN negotiations are characterized by transnational power shifts where traditional powers have less influence over outcomes.

The Initiative's influence also goes beyond formal negotiation processes. Further examples where Initiative members are believed to have played influential roles include the MDG Review Summit in 2010, the First Global Ministerial Conference on Healthy Lifestyles and Non-Communicable Diseases in Moscow in April 2011, the UN High-Level Meeting on HIV/AIDS in New York in June 2011, ongoing WHO reform discussions, and the 2011 WHO Working Group of Member States on Substandard/Spurious/Falsely-Labelled/Falsified/Counterfeit Medical Products. At the 2011 UN General Assembly High- Level Meeting on HIV/AIDS in New York, the Initiative issued a joint declaration that highlighted its common understanding and position and also called for worldwide access to affordable medicines. According to one interviewee, OMG's position also resonated with many groupings, including the emergence of collaborating negotiation partners that typically would have opposed each other (3[Aug-2011]).

The relation between global level and member states home ministries

The influence of countries on global inter-state arenas is ultimately not only the result of diplomatic craftsmanship, but also grounded in national policies. Even though the most active network of the Initiative is among health attachés of member states' permanent representations in Geneva (the world's global health capital), the Initiative's ambition is to also influence the way that member states address global health issues at home, though to varying extents. The variation reflects a mix of different administrational arrangements in the seven countries. Some interviewees conceded that parts of their national bureaucracies responded to the emergence of the Initiative by concerting global health and foreign policy responsibilities within their ministries of foreign affairs in conjunction with the ministry of health (2[Aug-2011]); 4[Sep-2011]; 6[Dec-2011]). Others asserted that their national

administrations have set up Initiative focal points or made use of existing relevant inter-ministerial commissions, all of which seem to have improved cross-ministerial work relationships (1[Aug-2011]; 3[Aug-2011]).

The variety of different administrative adjustments within the seven states is probably also a result of the countries' different financial, organizational, and human resources. Despite these structural differences, the members share the opinion that the Initiative has so far served as an opportunity for their ministries of foreign affairs to learn how they can take on new coordinating and expertise roles vis-à-vis different national ministries, some of which are becoming increasingly international, thereby challenging the traditional significance of the ministry of foreign affairs. At the same time, however, our data suggests that structural limitations at the national level frequently have the potential to strain the Initiative's momentum. Moreover, since the majority of the Initiative's work occurs among diplomats and primarily in Geneva or New York, its functionality is regularly stressed whenever diplomats, but also ministers at home, rotate and are replaced by new people. While this continues to be a delicate challenge, the OMG has so far proven to withstand changes that have occurred in personnel both in Geneva and the capitals.

CONCLUDING DISCUSSION

In traditional foreign policy analysis, scholars often maintain their focus on a country's foreign policy objectives, its roles in international negotiations, and alliances formed in order to leverage power to achieve stated objectives. In emerging research of global health governance, the analytical focus leans towards the global institutional architecture. While obviously important for understanding international politics, both approaches are insufficient to fully grasp the intersection of foreign policy and global health.

Our data on the Global Health and Foreign Policy Initiative suggests that it has proven to be a resilient group and not just a passing fashion—that the approach called for in the Oslo Ministerial Declaration requires deeper changes in states' foreign policymaking. The data brought forth three factors that seem to have worked as enablers in strengthening the role and impact of the Initiative and its member states, namely by bridging global arenas, supporting negotiation processes, and influencing national policy arenas. These factors, may allude to forms and functions of a state's capacity to maintain its presence and influence within the multi-actor landscape in global health governance.⁴⁵ Furthermore, our findings suggest that the Initiative scores somewhat higher on the first two factors than the third. Thus, arguments that the Oslo Ministerial Declaration "was a catalyst for raising the health-foreign policy relationship within the UN"⁴⁶ are probably right, although what constitutes *better* outcomes of processes or *heightened* awareness among policymakers at large remains more elusive. Probing such issues on a deeper level would require case studies of specific policy processes.

The Initiative reflects the new trend whereby diplomacy has steadily turned into complex relationship management, much of which is based on networks and other forms of nodal relations, such as clubs, alliances, or coalitions, none of which exercise diplomacy exclusively, but coexist and interact with each other as issues, strategies, and venues have become increasingly connected.^{47 48} Still, the Initiative is quite different from most of the clubs that have emerged in the context of global climate change in that it has a very broad scope and intends to remain small with a limited number of participating countries. Other countries have expressed interest in joining the group, but this has been declined. In this sense, the Initiative runs

counter to recommendations by scholars, suggesting that membership scope should be expanded over time. A weakness of many of the 'climate clubs' is that they have often failed to attract members from the global south, which is considered essential to deal effectively with the issue because of their large share of greenhouse gas emissions. In this regard, the Initiative deserves a high score considering that the majority of members are from the south and global health issues do not necessarily depend on such basic power resources for their solutions.

A key practical and analytical question the assessment of Initiative's contributions, and what measurement tools to apply when judging success or failure. Should one take its goals at face value, or interpret its ambitions as a new framing of the global health agenda? From a problem-solving perspective—in terms of improving global health on the ground—the Initiative cannot claim to be a success. According to our observations, it has responded to opportunities to engage within the global health domain, more than pushing the frontiers of cross-sectoral approaches. Still, our data suggests that it contributed positively to reduce the traditional north-south conflicts on important issues, and has been a champion for a broader framing of the global health agenda.

The Oslo Ministerial Declaration does indeed aim at transformative change, and as such, might have set unrealistic expectations among observers. However, it is simply unrealistic for this to be brought about by an informal club of small and medium sized states. That being said, it represents an innovative way to revitalize the role and function of states in global health governance. A challenge in the field of public health is the strong link between global health initiatives and aid financing, dividing the international community into donors, recipients, and a large group of middle-income countries. What the Initiative showcases is the emerging imperative to transcend such categorizations and view all countries instead as both makers and takers of global policies, where managing this interface to improve population health is indeed a practice of foreign policy.

No attempt has, to our knowledge, been made to identify best practices for countries actively seeking to apply a health lens to other foreign policy issues or sectors of global governance. Observers have criticized the Initiative for failing to show examples in this domain.⁴⁹ By turning the challenge over to the research community on global health governance, we propose to build upon research in global environmental governance and systematically compare the global health experience with practices in other areas of global policy coordination. From a body of cases with similar conceptual foundations, much can be learned about club strategies in relation to multilateral processes and other forms of intellectual and instrumental leadership exerted by both state representatives and epistemic communities. When considering how minilateral approaches can be made to work in a fragmented global governance system, one also needs to consider how club benefits affect sectoral or issue-specific interests at the domestic level.

Global health governance has been a budding academic field for the last decade and can benefit from utilizing political science perspectives in building a body of knowledge through empirical research. This will involve building a stronger case for the politics of global health as a distinct area of research grounded in political science and international relations and in doing so, to study phenomena at the global level rooted in the practice and interaction of states as the fundamental set of actors in international relations. The past decade's focus on *global* health governance casts a veil over what always was, and continues to be, the efforts among states to create, restrict, enable, and effectuate efforts that aim for improved health conditions. A

political science focus can help lift the gaze from the global architecture and not lose track of the states' agency in increasingly overlapping levels of governance.

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Shaping Norms for Health Governance in the Association of Southeast Asian Nations (ASEAN)

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While global health governance mechanisms have been studied extensively, little research has been conducted on the factors that fundamentally shape and constrain international health policy-making or on the norms and values that influence or define global health politics. The political and economic emergence of several nations has been challenging the ways health policies and programs are designed and implemented, but also the fundamental values that underpin such policies. In light of unstructured Global Health Governance, increasing attention has been devoted to regions as health actors. In fast-developing Southeast Asia, the Association of Southeast Asian Nations (ASEAN) has become one of the most prominent actors in health and could potentially act as a platform for different stakeholders in health, fostering a convergence of interests, norms and values. This paper looks at the norms that shape and constrain health-policy making in Southeast Asia, with a particular focus on the growing role of the third sector in norm diffusion despite little political integration at regional level. Health issues provide a vantage point to analyse the changing nature of relations and governance frameworks as well as the emergence of new norms through civil society movements in Southeast Asia.

INTRODUCTION

Over the past decade, the region of Southeast Asia has grown considerably in terms of economic and geopolitical influence. Since 2000, GDP in the Association of Southeast Asian Nations (ASEAN) almost doubled; from \$2,882 in 2000 to \$5,581 in 2011. Sustaining this growing influence has become a key objective in the region. Various health crises, such as the Severe Acute Respiratory Syndrome (SARS) in 2003, have raised awareness of the threat health issues may pose to regional growth and stability and have been a driving factor in establishing collaborative relationships among Southeast Asian countries. As health becomes an increasingly important negotiation item in international relations and on the global agenda, the political and economic emergence of several nations has challenged the way health policies and programs are designed and implemented; in addition to the fundamental values that underpin such policies. In Southeast Asia, ASEAN has become the most prominent actor in regional health governance and will be the subject of this paper. In light of a relatively uncoordinated and inefficient global health governance framework, regional organisations have tremendous potential in shaping health policies and implementing health initiatives.² This paper views regional organizations as increasingly relevant actors for health in an unstructured global governance architecture, with a potential to create coherence and provide a platform for various actors and stakeholders to interact and to foster a convergence of interests, norms and values.

Drawing from the literature on global health governance, it can further be noted that states are increasingly bound by treaties and rules which, in turn, are based not solely on agreements between states but supported by the wider public, through global civil society. Civil Society constitutes the core of the third sector in politics, which is separated from the public sector (national governments and international agencies) as well as the private sector (mostly composed of for-profit corporations). Civil Society is characterized by individuals coalescing around common ideas, values, needs or causes and who take collective action to promote collective gain. While government-to-government and business-to-business relations have long prevailed in Southeast Asia and have been central to regionalism in ASEAN, the role of the third sector has consistently grown, often in conjunction with the democratisation of several countries in the region. Civil society has become both an operational and normative actor of health in the region, which has not yet been formally integrated within ASEAN's regional health governance framework.

RESEARCH FOCUS

Which factors influence, shape and constrain political agendas for health, as well as the design and implementation of regional health policies in ASEAN? To what extent is civil society becoming a central normative and operational actor in this process, thereby contributing to the creation of a sustainable health governance framework for Southeast Asia?

The interest in normative power and the norms that shape health policy-making is particularly salient in the ASEAN context. Certainly, in a lowly-institutionalized and lowly-regulated setting such as ASEAN, it is of interest to consider the norms that underpin action and interaction in the region. "Norms form a web of expectations that guide actors' behavior, even when there is no formal government or other centralized means of enforcing conformity". Cooperation and collaboration in ASEAN has long been supported by specific objectives of security and economic growth. Such interests have been a centerpiece of regionalism in Southeast Asia and have defined ASEAN's identity and codes of conduct. Norms that are central to the conduct of state relations in ASEAN, such as "non-interference" or "decision by consensus" are increasingly being challenged in the face of emerging collective action issues. Health issues provide a vantage point to analyze the changing nature of relations and governance frameworks as well as the emergence of new norms through civil society movements in the region.

I. Understanding the process of agenda-setting and norm emergence: implications for regional health governance in Southeast Asia

A. Norm-emergence and agenda-setting: a theoretical framework

Being concerned with the process of norm change and norm creation for health in ASEAN, some theoretical insights will be particularly relevant to this paper. While material power has been central to understanding relations in the international system, it is increasingly acknowledged that normative or ideational structures are just as important as material ones.⁵ "The ability to evoke support from others is quite as important as the capacity to compel".⁶ As such, normative power is not about enforcing

orders over other actors but rather to engage them in shared practices. While a normative power can be defined as an agent with the ability to shape what can be "normal" in international life⁸, such capacity will also be defined by the recognition of this agent by target states or actors.9 Ian Manners first conceptualized normative power as being ideational meaning involving normative justifications and thus implying specific forms of engagement, but also as involving principles which are deemed legitimate and which are promoted in a consistent manner, and finally as involving actions which may involve persuasion (constructive engagement, dialogue, institutionalization of relations...) as well as conferral of prestige or shame.¹⁰ Ian Manner believes that for a normative justification to be convincing, its impact should involve socialization, partnership and ownership. Building on Ian Manners' conceptualization, Emilian Kavalski defined key features of normative power as interaction (impact of normative powers will occur through dialogical relations and the definitions of the "normal" will be negotiated in relations with participating actors), deliberate relations between participating actors and communities of practice ("the definitions of the "normal" are an acquired characteristic of an imagined community of interactions, constituted by deliberate practice). 11 Demonstrating the power of ideas, norms and values in world politics and how international norms evolve has been at the core of Social Constructivism's contribution to the field of international relations. Emphasis on normative power, rather than material power, is also crucial to highlight the potential role and contribution of non-state actors to the policy process. Constructivists favor bottom-up approaches to governance, thus opening a space for non-states actor to participate in norm creation and diffusion in the international system.12

Martha Finnemore and Kathryn Sikkink have extensively studied the norm lifecycle. Many international norms began as domestic norms and became international through the efforts of "norm entrepreneurs". Such norms do not originally lie in pre-existing state interests but in strongly held principled ideas and entrepreneurs' desire to convert others to this idea.¹³

The localization of foreign norms, or process by which norm-takers build congruence between transnational norms and local beliefs and practices, has been central to shaping regional institutions in Southeast Asia. ¹⁴ Indeed a favorable norm pool within which an issue may be aligned, constitutes one of the three permissive conditions under which an issue can emerge, along with attributes of issues themselves and the presence of political entrepreneurs. ¹⁵ Keck and Sikkink identify the process of norm emergence as follows:

- Issue definition (problem) -by an entrepreneur
- Issue adoption issue must be championed by at least one major player in broader network
- Issue emergence- advocacy; campaign; new norm

Similarly, when exploring the effect of foreign assistance on norm emergence, Lisa McIntosh Sundstrom concludes that a successful NGO movement will most likely develop when supported by norms that are universally embraced.¹⁶

To understand how norms can be effectively diffused at the regional level, the literature on networks will be particularly useful. "Complex global networks carry and re-frame ideas, insert them in policy debates, pressure for regime formation and enforce existing norms and rules while influencing particular domestic political issues".¹⁷ It is through transnational networks that preferences and identities of actors involved are mutually transformed. Non-state actors play an increasing role in such transnational relations.

B. Understanding norm emergence in regional health governance: the cases of (emerging) infectious diseases and of migrants' health.

When faced with new health challenges and health threats at home, can ASEAN become the forum through which transnational civil society networks promote new norms?

The role of civil society in promoting norms shaping health policies and their influence on the health policy agenda in ASEAN will be explored through two case studies. The case studies have been selected in an attempt to isolate important factors that either promote or prevent particular health issues to be prioritized on the region's political agenda. The first case study will look at (emerging) infectious diseases to illustrate the potential of ASEAN as a health actor managing a transnational health issue, largely explained by converging interests of member states and strong normative leadership from the World Health Organization (WHO). It will further reveal the crucial role of civil society and the potential of transnational networks in addressing the issue.

The second case study will look at the emerging issue of migrant workers' health in ASEAN, for which no convergence of interests and no normative framework exist. Although there are norms pertaining to the protection of migrants, as stipulated in United Nations Conventions. They have not been formally acknowledged or internalized by ASEAN members. The case study will highlight civil society's potential role in supporting a normative framework and suggest solutions to overcome barriers to coordination in ASEAN.

II. POTENTIAL AND CHALLENGES FOR ASEAN TO BUILD A COMPREHENSIVE REGIONAL HEALTH GOVERNANCE FRAMEWORK

A. Situation in Southeast Asia: have ASEAN states failed to create norms and values for health?

As a region, Southeast Asia is particularly vulnerable to health threats and crises, which have become extremely costly in an already resource-constrained environment. The region is usually considered a hotspot for emerging infectious diseases, in particular zoonotic and vector-borne diseases. However, the emergence of chronic diseases is gradually becoming another area of concern. This constitutes a "double burden" for many ASEAN member states.

While ASEAN shares very similar health challenges and epidemiological trends, impediments to efficient cooperation, sharing of information and best practices on the management of health issues exist. The low level of communication and coordination of initiatives between the two WHO regional offices present in Southeast Asia (Southeast Asia Regional Office (SEARO); Western Pacific Regional Office (WPRO)) has left open a

political gap. ASEAN has the potential to fill this gap to collectively manage health challenges.

As a regional organization, ASEAN is characterized by a low-level of institutionalization (visible in the lack of resources devoted to its Secretariat) as well as structural challenges (mainly the wide political diversity, economic disparities and sharp differences in operational capacity levels between members) that impede creation of a fully integrated health governance framework. While increasingly challenged, the behavioural norms of "sovereignty" and "non-interference" have long been central to inter-state relations and are preserved by the ASEAN Charter. Furthermore, ASEAN works with a very slow and complex decision-making system, a procedural norm known as "the ASEAN Way," which operates by consensus. Agreement on appropriate behaviour between ASEAN member-states is therefore always founded on the lowest common denominator, which is a true impediment to changing governance of transnational issues in the region.

Such norms combined with a low level of political integration are often said to explain the limits to effective cooperation and described as an impediment to the design of regional governance frameworks, in health as well as in other sectors.

B. Setting the health policy agenda: potential and challenges for ASEAN

Since its inception, ASEAN's role as a health actor has expanded. Major crises have fostered cooperation between Member States and health is gaining momentum on the political agenda, particularly since the adoption of a Socio-Cultural Blueprint to further regional integration. Yet, some health issues foster regional cooperation and collaboration more than others. Looking at cooperation examples around health, reveals that a clear convergence of interests between member-states can be sufficient to foster effective cooperation at the regional level. The role of non-state actors and particularly civil society will thus be crucial in transforming state understandings of their national interests by framing health issues and changing the normative content of health policies in the region. Civil society will also be central to the creation of a People-Oriented ASEAN that will balance states' power in deciding which norms should dictate policy-making in the region.

Looking at infectious diseases and migrants' health, which impact Southeast Asia as a region, various factors that shape and constrain regional health policies can be identified. Both cases shed light on the normative and operational role of civil society organizations in health governance either to support states and markets or to remedy their failure. Additionally, how such actors organize to overcome barriers to cooperation for health in ASEAN, further reflects on what regionalism does and should entail in Southeast Asia.

1.(Emerging) Infectious Diseases Control

The control of emerging infectious diseases represents, to date, the first area of sustained regional collaboration in Southeast Asia. The 2003 outbreak of Severe Acute Respiratory Syndrome (SARS) is considered to mark a turning point in ASEAN's collaborative mechanisms for health governance. Infectious diseases bear a considerable burden on the global economy. Consequently, relevant stakeholders have been

motivated to act both by the economic and health costs brought about by epidemics. For example, the estimated cost of SARS to East and Southeast Asia has been estimated to be US \$18 billion.²⁰ In order to protect the region and sustain economic growth, Southeast Asian nations must collaborate to strengthen their capacity in tackling the issue.

To prevent and respond to (emerging) infectious diseases (such as SARS, H5N1 and Dengue Haemorrhagic Fever), ASEAN member states have collaboratively designed regional health strategies on the basis of WHO's guidelines and have been working through disease-specific Working Groups and Task Forces, which foster multi-agency and multi-sectoral cooperation. Furthermore, ASEAN operates within a wide framework of collaboration which includes WHO regional offices for Southeast Asia (WHO SEARO) and for Western Pacific (WHO WPRO), as well as the Asia Pacific Economic Cooperation (APEC) and the Asian Development Bank (ADB).

Collaboration for the control and eradication of infectious diseases remains the most successful instance of cooperation to date in ASEAN. This can probably be explained by the convergence of interests in curbing the impact and spread of infectious diseases based on a cost-benefit analysis (although views may differ on how to achieve such an objective). The clear normative leadership from the WHO and the provision of clear guidelines (through the use of the revised International Health Regulations²¹) has allowed ASEAN to act as a bridge-building organisation between global initiatives and local implementation, and to demonstrate its potential as an actor in health.

But as various other health issues, such as non-communicable diseases, environmental health issues or migrants' health, threaten the long-term stability of the region, it has proven difficult for ASEAN to act as a platform fostering cooperation and driving consensus on such health issues. The issue of migrant workers' health in Southeast Asia constitutes a helpful study case to identify important factors that impede on effective collaboration at the regional level.

2. Health of Migrant Workers

In the past few years, concerns over the health status of migrants (migrant workers specifically) in Southeast Asia and the need to deal with this issue in a regional governance framework has arisen. Every year, approximately 1.5 million individuals move within ASEAN.²² In 2010, the Asia-Pacific region was host to 53 million migrants (25% of the world's total migrant population).²³ The ILO estimated that in 2010, over 5 million migrants from ASEAN worked within the region, generating US \$39.5 billion in remittances.²⁴

ASEAN states have traditionally adopted immigration policies of a restrictive nature to prevent settlement of migrant workers, which offer little protection to these individuals. This population typically faces issues pertaining to occupational health, maternal and reproductive health as well as mental health. Their health status is often compounded by unsafe and unsanitary working and living conditions as well as legal, administrative and cultural barriers in accessing services.

It is increasingly acknowledged that migrant workers' contribution to economic development of both sending and receiving countries is considerable (by filling labour shortages, by reducing unemployment rates, by increasing remittances...). "Unhealthy"

migrants will potentially bear economic and social costs on both receiving and sending countries.

Concerns over protection frameworks for migrant workers throughout the region are exacerbated in light of ASEAN's objective to further regional economic integration and to become "a single market and production base," by 2015.

A regional migration and health governance framework may become crucial to long-term and sustainable management and protection of migrant workers. In the Southeast Asian context, a clear preference for regional efforts point towards ASEAN as the most legitimate organisation to design a legal and normative framework through which migrant workers' health could be protected.

The most important step taken by ASEAN regarding migrant workers' protection remains the adoption of an ASEAN Declaration on the Protection and Promotion of the Rights of Migrant Workers (DPPMW) at the 12th ASEAN Summit in Cebu, Philippines on 13 January 2007. The Declaration mandated that member-states increasingly cooperate on migrant worker issues, emphasizing the need for coherent regional policies on the matter building towards a harmonious socio-cultural community in ASEAN. Unfortunately, the Declaration remains a non-binding agreement that recognizes the sovereignty of member-states to implement their own immigration policies.

In spite of growing political will at a regional level, cooperation under a multilateral governance framework remains limited. Flexible arrangements which can adapt to changes in labour markets have been favoured in the region. Bilateral Agreements (binding) and Memoranda of Understanding (non-binding) are the traditional instruments used in ASEAN to manage migration flows and address migrant workers' concerns. However, they usually concentrate on recruitment procedures and rarely provide for migrant workers' protection and welfare.

As differently situated actors with diverse agendas, motivations and priorities, ASEAN members face a range of challenges and contradictions in addressing such issues in a transnational framework.²⁵ There is, therefore, no normative framework under which common norms on the health of migrants can be developed. The lack of a global governance framework on migration can be explained by the constructivist approach to interests, which are not fixed but evolve with actors' ideas about the world. Ideas about migration are often constructed in relation to other policy-areas and the cost-benefit of migration tends to be socially constructed.²⁶

C. Understanding norm emergence in ASEAN regional health governance: lessons from the case studies

The case studies on (emerging) infectious diseases and migrant health in ASEAN are helpful in identifying the factors that shape the regional health policy agenda and how common norms have emerged to guide regional collaboration. In the case of (emerging) infectious diseases, the problem has been clearly identified as the rapid spread of (deadly) pathogens across borders, which affect the region's development. Acceptable solutions to better control the spread of such pathogens have been discussed and accepted, although some issues (such as the viral sovereignty debate) remain unsettled. The wider public as a whole perceives both the problem and solutions favourably, which facilitates implementation of measures to curb the spread of diseases. While the issue of infectious disease has particularly affected East and Southeast Asia, global norms and

guidelines do support regional policies and actions. As such, regional norms regarding control of infectious diseases fit within a wider governance framework. In comparison, migrant workers' health constitutes a more complex policy issue. First and foremost, while evidence of the negative consequences of migration on health exists, there is neither clear definition of the problem nor clear identification of its (multiple and varied) causes or wider implications. Solutions to the problem are difficult to formulate or implement. In addition, with the various stakeholders involved, having different interests and agendas regarding migration, no common normative framework exists to support regional policy. Similarly at the global level, few norms regarding migrants' health have been developed.

How can the issue of migrants' health be given more political weight on the ASEAN agenda? How will common norms and standards emerge around this issue and how can interests converge around such norms? An increasing array of actors is becoming involved in migration and health. Within a regional space where a normative framework on this issue is quasi-inexistent, which actors are most likely to shape health policy on the issue?

III. ACHIEVING GOOD GOVERNANCE FOR HEALTH IN SOUTHEAST ASIA: PROSPECTS AND CHALLENGES FOR THE THIRD SECTOR IN ASEAN

A. Responding to emerging complex health issues: the rise of the third sector

In light of market and government shortcomings to provide public goods (such as health) and to develop common norms and values to support regional health policy, a third sector is becoming a crucial element to achieve good governance for health in the region.

One of the main functions of non-governmental organisations (NGOs) and community-based organisations (CBOs), which account for a large proportion of civil society, deals with service delivery, with the added value of providing services which respond to a recipient community's values and cultural norms.²⁷ "NGOs may be well positioned to understand specific needs and give them an effective voice (Stromquist, 1998), especially when markets mechanisms ignore these needs (Korten 1990) and governmental regimes are deemed too repressive, too weak or too resource-strapped to serve them (Keck and Sikkink, 1998 and Meyer, 1999, 17)".²⁸

NGOs and CBOs have also been the most significant sources of data and information in the region (notably on the issue of migrants' health). Such organisations have played a prominent role in sharing information, exchanging data and technical expertise or in fund mobilization with governmental institutions or International Governmental Organizations.

CSOs bridge the gap that exists between ASEAN as an organization and the peoples of Southeast Asia. Through civil society, global and regional processes are more publicly accessible and information is more effectively disseminated, which in turns helps to raise awareness of select major health issues at the local level.

In terms of regional policy-making, civil society organisations have attempted to increase their scope of influence by forming networks such as Solidarity for Asian People's Advocacy (SAPA), which was created to enhance the effectiveness and impact of civil society advocacy by improving communication, cooperation and coordination

among non-governmental organisations operating regionally. SAPA engages ASEAN through its Working Group on ASEAN. This Working Group has been active on the ASEAN Charter drafting process, particularly with the Eminent Persons Group and the High Level Task-Force. SAPA has also been the driving force in the annual convening of the ASEAN Civil Society Conference and ASEAN People's Forum since 2006. The SAPA Working Group on ASEAN is an open platform for joint thematic action and works with and through various Task Forces on thematic advocacy campaigns (such as the Task Force on ASEAN Migrant Workers).

This illustrates the growing involvement of an Asian civil society in advocacy activities and regional policy-making. Civil society organisations also have a role to play in monitoring the implementation of regional initiatives (especially in the light of the low-enforcement capacity of ASEAN). These organisations could, for instance, lead initiatives to induce change such as peer-pressure, name shaming and country-rankings, which may prove efficient tools in the region. Instances of such involvement can be observed both in the areas of infectious diseases and migrants' health.

In dealing with (emerging) infectious diseases, the role of civil society and academics has been central to effective collaboration. On the occasion of the ASEAN Dengue Meeting in 2010, materials of Information, Communication and Education, their elaboration and dissemination, were discussed by ASEAN officials as a clear opportunity for the involvement of civil society organisations in Dengue control. Furthermore, at ASEAN level, various collaborative programs for research have been established.

With regards to migrants' health, the role of civil society organisations has considerably grown. At national level, such organisations provide health services to migrant workers, thus remedying to market and government failures. In order to gain influence on policy-making, Asian NGOs have joined in transnational networks such as Migrant Forum Asia, the Solidarity for Asian Peoples' Advocacy network and the Coordination of Action Research on AIDS and Migration (CARAM). It is through NGO activism that migrants' rights have been advocated in Asia.²⁹

Finally, civil society has a normative dimension. Being flexible entities with an ability to act rapidly, CSOs have been able to shape agendas and mobilize public opinion.³⁰ In this regards, CSOs largely contribute to stimulating democratic change and stability.³¹ This role is also transferred at the international level, where civil society networks can help articulate values and norms to interpret new problems.³² This ability of civil society to create common norms and values across borders is particularly relevant to the context of ASEAN. The regional organization has been integrating economically towards the building of a regional community. But such a community will come to existence if founded on viable shared values and interests. Such values can only develop through the process of intense social interaction.³³ "In the case of Asia, it is through civil society institutions and non-governmental interactions that a sense of a regional community with common concerns and shared values has been generated and this has enhanced economic integration".³⁴

As a regional organization, ASEAN is increasingly facing a normative shift to guide its policy-making on transnational issues, particularly with regards to the principle of non-interference and norms of Human Rights.

CSOs increasingly have a role to play in ASEAN's regional governance mechanisms, more particularly in the area of public goods such as health. While some

positive developments as to their involvement in ASEAN's processes can be observed, the scope of their influence on regional decision-making seems to remain limited. To what extent will civil society networks (in collaboration with other governmental and non-governmental networks) be able to influence the agenda-setting process and shape the normative framework underpinning regional health governance in Southeast Asia, thereby resolving the normative dilemma faced by ASEAN?

B. Reconciling agendas and making sense of unstructured plurality in ASEAN: can civil society networks create value for health in ASEAN?

One of the most important functions of civil society in the region will be to build a regional identity on the basis of common norms. A sense of regional identity is crucial in formulating sustainable health policies and initiatives for Southeast Asia.

What is therefore the potential of civil society in ASEAN to create norms or to localize foreign norms for health governance?

While CSOs may be under the influence of external norms, the latter can "localize" such external norms. The concept of "localization" describes a process by which norm-takers build congruence between transnational norms and local beliefs and/or practice. This provides an avenue through which foreign norms can be incorporated into local norms.³⁵ Civil society has the potential to frame issues using discursive politics. A health issue can, for instance, be framed as a security threat or as a public good, and this will condition the approach and measures taken to tackle such an issue. In the Southeast Asian region, various (Western) international organizations and international non-governmental organizations are actively involved in the governance of health issues and consequently influence the development of a normative framework for health in ASEAN. As such, norms may be negatively perceived by ASEAN member-states, it is through the use of local networks of civil society that such norms can be localized.

Again, the formation of networks will be central to the creation and diffusion of common norms and values for regional health governance. Transnational advocacy networks include "those actors working internationally on an issue, who are bound together by shared values, a common discourse, and dense exchanges of information and services". Their goal is to change state behaviour by framing issues to make them comprehensible to target audiences.

1. Civil Society and (Emerging) Infectious Diseases: operational support and norm diffusion

In dealing with (emerging) infectious diseases, the role of civil society has been central to effective collaboration. On the occasion of the ASEAN Dengue Meeting in 2010, ASEAN officials saw the elaboration of Information, Communication and Education materials as an opportunity for involving CSOs in Dengue control. Building on the strengths of civil society organizations in local contexts, the latter have been active in pandemic preparedness as exemplified by MERCY Malaysia, which organized, in 2008, the world's first pandemic logistics and learning exercise in Malaysia called P2LX. The programme was coordinated by the World Food Programme and received technical support from the WHO. This further demonstrates the potential for networks of civil

society to collaborate with external actors, such as international organizations.³⁷ The use of networks has been central in the management of infectious diseases. The rapid spread of SARS in 2003 shed light on the need for effective communication but also surveillance mechanisms. Multi-country surveillance networks now constitute a good practice in the field of infectious disease control. The Asian Partnership on Emerging Infectious Diseases Research and the Mekong Basin Disease Surveillance (MBDS) network have played a critical role in the prevention of epidemics. An initiative to link various networks has recently been taken: Connecting Organisations for Regional Disease Surveillance (CORDS) was established to respond to the need to strengthen overall capacity and capabilities of the MBDS and creates a forum for global exchange.³⁸ "CORDS played a vital role in bringing the regional networks together and will catalyse future cooperation".³⁹

While civil society organizations have operationally been active in the management of infectious diseases, their role in the diffusion of norms supporting health initiatives for infectious diseases is less clear. This may be explained by the relatively high level of consensus and convergence of interests in the region on this health issue, as well as the strong normative leadership of the WHO and the International Health Regulations.⁴⁰

2. Civil Society and Migrants' Health: the challenge of norm creation

With regards to migrant workers' health, the role of civil society organisations has considerably grown. At the national level, such organizations provide health services to migrant workers, thus remedying market and government failures. In order to gain influence on regional policy-making, Asian NGOs have again joined in thematic transnational networks such as Migrant Forum Asia and the Coordination of Action Research on AIDS and Migration (CARAM). It is through NGO activism that migrants' rights have been advocated in Asia (Piper 2006). MFA takes on a human rights approach to its activities. MFA was established in 1990 during a meeting of migrant advocates in Hong Kong. The organization acts as facilitator and regional communication and coordination point between its 50 member organizations to more effectively address issues pertaining to discriminatory laws and policies, unjust living conditions and other issues affecting migrant workers. While MFA addresses broad issues pertaining to migration, CARAM focuses on migration and health, particularly AIDS. Formed in 1997, this regional network includes members from Southeast Asia, Northeast Asia, the Gulf and the Middle East.

Two norms tend to prevail in the field of public health: security and human rights. The migration and health issue can be framed either as a security issue (a non-traditional one) or as a rights issue. While ASEAN member-states tend to securitize migration, such an approach is likely to result in further discrimination of migrant populations. Civil society organizations, often supported by international organizations, have adopted human rights approach to the health of migrants. Going back to the literature on transnational advocacy network and the boomerang effect developed by Kathryn Sikkink, this would explain the emergence of rights-based networks as a reaction to repressive domestic environments where such norms do not permeate policy.

The support of external actors to civil society networks in ASEAN is thus crucial to the advancement of a normative framework for migrant workers' health.

As evidenced through the case studies, International Governmental Organisations and International non-Governmental Organisations have been involved in regional health governance and in this regard have normatively influenced processes and stakeholders. The influence of such organisations involved in the region is predominantly "Western" in orientation. United Nations agencies have been central in bringing together governments, international organisations and civil society organisations through networks such as JUNIMA (Joint Initiative on Mobility and HIV/AIDS) or the JMDI (Joint Migration and Development Initiative).

As an increasing diversity of actors become involved in health policy-making and service delivery, the challenge lies in reconcilement of different value-systems and interests that make up the global (or regional) health community.⁴¹

When looking at networks in ASEAN, it is important to consider not only civil society networks but also interactions between governments, private sector, international organizations and civil society. It is from interaction between all relevant stakeholders in health that consensus on which norms should dictate cooperation will arise. This will move ASEAN from collaboration to coordination in health.

The use of networks by governments or civil society has been at the core of international relations in ASEAN but it is necessary to reflect on ways to connect those various networks to create a coherent regional health governance framework. For instance, the Colombo Process which is a Regional Consultative Process (mechanisms supervised by IOM and which constitute a valuable alternative in the absence of formal mechanisms to discuss regularly international migration in Asia,⁴² gathers governments of labour-sending countries in Asia who wish to advocate for more protection of migrant workers. Such a process has been useful in advancing a common state strategy in the management of labour migration but, unfortunately, CSOs have not been included in negotiations.

The normative power of civil society actors in ASEAN can be observed in the convening of forums that foster constructive engagement between various stakeholders as in the case of the ASEAN People's Assembly (APA). The APA is a track-two initiative which provides a forum for debate and fosters dialogue and confidence-building among policy-makers, academe, think tanks and civil society. Numerous civil society organizations participating to this process realize that to gain influence they need to engage with governments instead of adopting anti-government or anti-ASEAN positions.⁴³

CONCLUSION: THE WAY FORWARD FOR REGIONAL HEALTH GOVERNANCE IN ASEAN

With health becoming a prominent item on ASEAN's agenda it also challenges existing norms that have shaped relations in the region. While some health issues foster cooperation others, probably deemed too contentious, do not rise as priorities on the political agenda. Understanding the factors that shape and constrain health policy-making is crucial to overcome barriers to comprehensive regional health governance frameworks. This paper looked at issues of norm emergence through the lens of two health issues in ASEAN and concluded on the essential role of civil society in norm creation and diffusion in the region.

Given the growing complexity of actors involved in health in the region, combined to low normative and enforcement capacity of ASEAN as a regional

organization, health policies are likely to be increasingly shaped through diffuse systems of governance.

In this context, non-state actors (civil society organisations particularly) as well as informal, non-binding processes are of interest.

Studying networks is valuable to theorize about the emergence of shared norms and cultural meanings underpinning the process of regional integration. Yet, obstacles to better inclusion of various stakeholders (particularly civil society) in ASEAN processes remain. Opportunities for all sectors and relevant stakeholders to collaborate and contribute in a balanced manner to the regional policy process must arise. In this regard, the creation of an ASEAN People's Assembly constitutes a promising development. This initiative provides policy-makers, academe, think-tanks and civil society a forum for debate thus fostering confidence-building among participants.

Studying networks is valuable to theorize about the emergence of shared norms and cultural meanings underpinning the process of regional integration. Networks build new links among actors in civil society, states and international organizations, multiplying opportunities for dialogue and exchange and are favoured for their flexible and responsive nature as well as their capacity to promote innovation and dynamism. The use of networks as an organizational form to deal with health issues in ASEAN is symptomatic of the form of regionalism that is more suited to the region and that is most likely to lead to more effective regional health governance.

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Expanding Humanitarian Global Health Capacity for the Human Good

Donna J. Perry and Melissa T .Ojemeni

This paper proposes a three-level approach to capacity building within the context of humanitarian global health care: augmenting healthcare delivery, assisting local community development and transformation of barriers to capacity. The approach builds on a secondary data analysis from a qualitative study with transnational global health care providers. The findings suggest that many providers experience a "dialectic of dignity" due to the profound suffering they often encounter in the field. We argue that underlying socio-political issues that contribute to this dialectic such as social injustice, human rights abuses and violent conflict are barriers to capacity building that must be addressed in order to realize the human good of health. The theory of transcendent pluralism and philosophy of Bernard Lonergan are used to elucidate the need for a transformative approach. We propose that a higher viewpoint of humanitarian capacity building is needed that encompasses a transformative solidarity with local communities.

INTRODUCTION

This paper explores the notion of capacity building in humanitarian assistance and proposes a three-level approach to humanitarian global health capacity building. This approach is supported through a secondary analysis of qualitative data from a research project conducted by the first author of this paper with transnational humanitarian health care providers at a large academic medical center in the United States. The purpose of the original study was to learn about the education and support needs of hospital-based providers who engage in humanitarian global health care. The primary findings of that study are reported in a separate publication. In this work we analyze unpublished data from the original study and propose that humanitarian capacity building be considered from the viewpoint of the human good to be achieved at three levels: (a) augmenting local healthcare delivery capacity; (b) assisting local communities to develop their own capacities and (c) transforming barriers to capacity. Some dimensions of the theory of transcendent pluralism and the philosophy of Bernard Lonergan, S.J., a twentieth-century Canadian philosopher, will be introduced to support this approach.

RESEARCH PROCESS AND FINDINGS FROM ORIGINAL STUDY

The original study aimed to understand how health care providers made the decision to engage in humanitarian global health care and their experiences during preparation, deployment and return to the U.S. ² The method used in the study was Transcendental Method for Research with Human Subjects, a transformative phenomenological approach adapted from the philosophy of Bernard Lonergan. ³ Briefly, this method involves interviews in which participants are guided into self-reflection on their

experiences, the understanding and judgments that they reach about those experiences and their decisions as carried forth in personal actions. Additionally the method explores personal development and the meaning associated with experiences and choices.

The study was approved by the Partners Human Subjects Research Committee. The sample size was 15 and included physicians, nurses and therapists with a mean age of 39.8. Study participants were recruited through emails to known global health providers and snowball sampling. Participants had had a range of 1 to 19 deployments (mean 4.87) and total time in the field ranged from 1 week to 4 years. Settings included acute humanitarian crisis, protracted crisis and development. Thus the term "humanitarian" global health care was interpreted broadly as the same providers often worked in both disaster and development settings.⁴

The initial study findings yielded seven themes. These include: "a) the yearning to relieve suffering, b) getting ready, c) making a difference, d) bad things happening to wonderful people, e) challenging and sustaining factors, f) dialectical alienation, and g) knowing what really matters." The concept of "effective purpose" was introduced through analysis of these themes, which was defined as, "the valuing of and desire to realize a particular human good; selection of that good as a deeply held goal; and perception of having been able to contribute meaningfully in bringing about the desired good". This conceptual definition reflects that providers felt compelled to engage in global health deployments due to a perception of human need and a personal responsibility to meet that need. Conditions that helped facilitate these goals included opportunities for deployment, having necessary skills, and mentoring/ team support in the field. Ultimately, successful placements led to meaningful fulfillment through perceiving that one had "made a difference". This perception was often validated by responses of local colleagues and care recipients.

BACKGROUND: CAPACITY BUILDING IN INTERNATIONAL DEVELOPMENT

The global emphasis on capacity building was reenergized with the United Nations Millennium Declaration in September 2000. From that declaration, three of the eight millennium development goals (MDGs) focused on improving health outcomes.⁸ Beyond the MDGs, the sustainable development goals (SDGs) will also provide opportunities for increased capacity building within the international development agenda.⁹ The importance of capacity-building is explicitly identified in SDG 17.9 "Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation."¹⁰

Before discussing approaches to capacity building we must begin by defining capacity as it is viewed in the context of international development. Capacity is viewed as an ability of individuals, organizations or systems to perform functions in an efficient and sustainable manner.¹¹ The origins of capacity building lay in the notion that the role of engaged outsiders should lie in supporting the capacity of local people to determine their own priorities, organize themselves to act upon them and sustain these for a common good.¹² Although described as a key factor for development, capacity building

has often been described as elusive, all-encompassing and lacking clarity—resulting in no universally recognized definition.¹³

Despite its elusiveness there are commonalities within the definitions of the term. Capacity building is often described as an action aimed at developing organizations. ¹⁴ It can also be defined as an internal process of improving an organization, person, group or systems' ability to meet its objectives or enhance its efficiency independently once outsiders leave or funding dissipates. ^{15, 16, 17} Capacity building, within the context of global health care, continuously seeks to build viable and competent workforces that can provide evidence-based care to the populations being served.

Theoretical Framework: Transcendent Pluralism

The theoretical framework used to guide the initial study and secondary data analysis is transcendent pluralism, a theory developed by the first author of this paper about the evolution of human dignity.^{18, 19} The theory of transcendent pluralism proposes that the many social problems which negatively impact health are rooted in human devaluation and that a healing transformation to advance human value, or dignity, is needed within the global culture. Human dignity is defined as "value in personhood" ²⁰ Personhood is defined as "the unique wholeness of human identity that has intrinsic value in being and a developmental value that reaches fulfillment in the conscious development of good will".²¹ Actions that advance human dignity are actions of honoring personhood. Human dignity in this conceptualization encompasses two interwoven aspects of value. The good of "being" reflects the unique value of each human life, by virtue of existence. The good of "becoming" is realized through fulfillment of the human potential to develop good will. Both the good in being and the good in becoming are integral aspects of human dignity.²²

The theory views human dignity as interwoven and mutually emergent within human relationships. If I act in such a way that diminishes the dignity of another person or neglects my responsibility toward them, then I have also lessened my own dignity. The extent to which the Other is able to live in dignity is related to the realization of my own potential to make good choices.²³

The practice of humanitarian global health care provides a way to advance human dignity through good choices. Indeed Walker describes the value underlying all humanitarian action as "humanity"²⁴ which was defined by Jean Pictet as, "a sentiment of active goodwill towards mankind."²⁵ The value of humanity can be understood as an expression and affirmation of human dignity.

LEVELS OF CAPACITY BUILDING FOR THE HUMAN GOOD

The conceptualization above signifies that the emergence of human dignity is related to the realization of human capacity for the good. The following sections provide a discussion of humanitarian capacity-building within a three level framework based on secondary analysis of data from the original study. From this lens, capacity building is defined as *action that expands realization of the human good*. In the setting of humanitarian global health care, there are multiple goods to be realized but ultimately the aim is health. Humanitarian action is viewed as an evolving understanding of the good with three inter-related types of intervention: (a) augmentation of local healthcare

delivery capacity, (b) assisting local communities to develop their own capacities and (c) transforming barriers to capacity.

Augmenting Local Health Care Delivery Capacity

The first level of capacity building is augmenting local services through direct provision of care. Hospital-based providers from a variety of disciplines can expand global capacity for communities with limited resources through sharing their professional skills. This can be particularly instrumental during situations of increased need due to acute and protracted crisis.^{26, 27} There is clearly a need for external support during acute disaster response, even for nations that are generally well resourced. For example, both the United States after Hurricane Katrina in 2005 and Japan after the 2011 earthquake and nuclear disaster experienced situations in which local capacity was not sufficient to meet needs. Christoplos points out that, "Disasters are, by definition, events that overwhelm local capacities". 28 He further identifies service delivery as the core of the humanitarian imperative in the effort to assist disaster-affected people.²⁹ Study participants reported having undertaken short and long-term deployments in a variety of settings to provide the vital human good of health care to populations in need. These included both disaster settings as well as stable communities with limited resources. Moreover they recounted perceptions that they had "made a difference" through saving lives, reducing suffering, offering support and building trusting relationships.³⁰ One provider described sharing his medical skills as a manifestation of love.

In most of Sub Saharan Africa and a lot of the developing world there are people who don't get care just 'cause there's just not enough people with my skill set. So, to me that was the most loving thing I could do would be to move myself to the place where that vulnerable population was. And I guess that's the guiding value.

Assisting with Development of Local Capacity

The second level of capacity building is a developmental process of helping local providers to advance their knowledge and skills and to strengthen local health systems. Kerry and colleagues point out that meeting staffing needs of low resource countries with medical staff from high resource settings is neither efficient nor sustainable. Mutually beneficial partnerships are needed that also build the capacities of local health care systems and leaders.³¹ While local capacity-building was not explicitly addressed in the interview questions there were a number of responses that offered insight into the importance of this goal.

Several study participants spoke of the need to understand the values and goals of local communities as a critical early step. Members of the local community often had a firm grasp of what would and would not work but needed encouragement to express their insights. This could present challenges when locally identified priorities differed from one's own. But ensuring that plans were congruent with local goals was critical for sustainability.

It's not so much goal oriented what I want to achieve for them. . . . the success of the projects should really be based on how I was listening to the community members and what they wanted. . . So to carry on after I'm gone.

Although not all of the participants were engaged in large-scale capacity-building projects their responses suggest that their values and attitudes were congruent with such an approach. Many expressed a commitment to "empowerment" and the desire to "leave something behind".

We're trying to augment the effectiveness of the workers we're working with. . . . working with people overseas and not necessarily for; that really it's a partnership and that training is so much more essential than doing.

One of the challenges to building local capacity in this way is that it required transnational providers to move beyond their comfort zone of providing clinical care and step into leadership and education roles. Several participants described being asked to take on leadership positions because they were often the most highly educated person at a site. However most of these individuals were *clinicians*. They did not have experience as leaders, educators or project managers in their own culture and suddenly they were expected to lead, teach and manage in a new culture.³²

Clearly this has implications for training of field staff. In order for staff to help build local capacity their own capacities also need to be developed. Good mentorship in the field helped these providers to become capacity-building leaders. For example, one participant described how her supervisor helped her to focus on mentoring others.

My boss said . . . your job is to make yourself redundant. . . . if you're doing your job really well when you leave you'll be doing nothing. . . . It was good for me to hear that; you're doing well if you're doing less because you need them to be doing it.

Another participant described being mentored by the country director. This led her to develop an apprenticeship approach with local staff.

The Country Director . . . was all about teaching self sufficiency. So it wasn't about me telling people what to do. It was . . . "OK you're going to be attached to my hip as I see patients every day 'cause you're going to have to do this and we're going to alternate seeing patients and you're going to tell me what you think we should do and if you have an idea I'm going to listen to it and do it." And I think that his training was great.

The effectiveness of this approach was validated by the increasing self sufficiency of the local health care staff at the refugee camp.

I had known by the end of my time there. They didn't need me any more. . . I never got called at night any more. They had done rounds. There were

certainly little things that I could tweak but it was great. It was really good. . . . And I had been gone for three months and came back and everything was running.

The mentoring that this provider received from her country director is now something that she passes on when coaching younger medical staff. She encourages them to "leave something behind".

Transforming Barriers to Capacity

Study participants reported significant challenges in their goals to provide health care due to underlying barriers such as limited resources and sociopolitical issues.³³ Their accounts make clear that in order for low resource communities to fulfill their capacity to meet local health care needs underlying barriers must be addressed. There are two dimensions of this process which we believe suggest the need for efforts towards building a transformative capacity in humanitarianism. The first is called a "dialectic of dignity" and the second is the notion of a "higher viewpoint".

Dialectic of Dignity

Participants witnessed extreme deprivations and deplorable circumstances faced by the people they cared for overseas. Return to the U.S. brought forth a sharp contrast of these austere conditions with Western living. Their homecoming was often characterized by emotional upheaval, feelings of guilt, and annoyance with those who complained about matters they viewed as trivial. Their experiences are consistent with similar reports in the literature.³⁴ Participants described a shifting of concerns and a new understanding of "what matters". They reported using less resources in the hospital environment and avoiding materialism in their personal lives. Many experienced feeling overwhelmed by Western abundance, particularly with food.³⁵

I remember being in the airport... I was standing in front of this huge refrigerated display of hundreds of different kinds of sandwiches, just hundreds and hundreds. And we just had ... boiled goat meat, boiled tomatoes and boiled rice, every day. And I started to cry and walked out.

The return to work and American culture was difficult as participants found it hard to connect their newly expanded horizon of concern with a culture in which people seemed focused on superficial interests. Many experienced a profound alienation from peers and American culture in general.

It made me feel like you just wanted to scream like you don't even know what's going on over there you'd turn on the TV and it was all about [celebrities] and it wasn't about [the Congo] and I couldn't understand why.

Such responses suggest the emergence of a "dialectic of dignity". A dialectic of dignity emerges when we perceive a tension between our ideal of human dignity and the

manifestation of human dignity in a given situation.³⁶ This tension may be triggered by external events but it has an internal dimension as well because it calls us to take action. As noted earlier, our dignity is interwoven with that of others. In this sense, we suggest that feelings of dialectical alienation that emerge during the reentry process are not something to be dismissed or "gotten over" but rather an indication of huge disparities between populations in the fulfillment of the human capacity to live in dignity.

In his 1972 Nobel Lecture, Solzhenitsyn addressed the disproportionate suffering experienced by different peoples across the globe. He attributed these enormous differences to differing scales of values. ³⁷ The feelings that providers described upon their return can at least partially be attributed to personal experiences with colliding scales of values as they were plunged out of one world and into another. Feelings of guilt and being overwhelmed with abundance, new desires to simplify and shun material things reflected an attempt to try to reconcile the enormous disparities they witnessed. The dialectic of dignity was experienced as an overwhelming alienation from one's home culture.

The Human Good as an Evolving Higher Viewpoint

Several participants described being challenged and troubled by larger issues that blocked their efforts to provide good health care. One provider discussed her frustration at having her efforts thwarted in a context of violence.

You can't really teach health promotion, and "keep clean water" and do this and that when they're getting attacked every night and they have to run into the bush and hide. . . . And they're getting attacked and losing all the things that you're trying to give them.

Another provider described a growing awareness of the need for larger sociopolitical change.

They talk about all the time with malnutrition that the ultimate goal is to integrate our program into the global health centers. But they don't have that capacity to do that... They don't have the money. The government doesn't have the interest... the bigger picture is always staring you in the face. This big system needs to change. Because this small thing is just a bandaid.

A number of participants described a heightened attentiveness to sociopolitical issues after beginning their humanitarian global health work.³⁸ They became more aware of the impact of politics on the vulnerable populations that they cared for. They described themselves as following current events in the paper more closely after returning home and being "worried" about the effects of ongoing events on the communities they had served. One participant experienced lying awake at night, concerned about all the world's problems. Several described themselves as more socially progressive and more aware of the need for changes in public policy. Some of these providers undertook additional education or engaged in research that would give them the tools to work on policy change.

So it just changes your whole view and makes you want to be a lot more aware of those things and hopefully you can get involved. I'd love to get involved in some policy stuff and things like that. Because that's where the real changes occur is at the higher levels.

This increased socio-political awareness can be understood as what Bernard Lonergan describes as a "higher viewpoint", which is a development of consciousness toward an expanding context of concern.³⁹ Such a higher viewpoint does not eliminate other concerns but, rather, integrates them into a broader context. A higher viewpoint would encompass the underlying socio-political conditions impacting health.

The Need for a Transformative Approach

Taken together, the dialectic of dignity and higher viewpoint suggest that in the process of providing humanitarian health care in under-resourced settings participants gained insight into the need for change. They realized that while meeting basic needs of populations in crisis was critical, a deeper intervention was required to address the root causes of problems.

Walker points out that while media coverage, public concern and corresponding donations for crisis-affected populations have expanded considerably, these processes have "not been accompanied by any depth of analysis, any real understanding of why there is such suffering in many parts of the world".⁴⁰ Christoplos argues that "quick-fixes" such as short training workshops or codes of conduct are seldom sufficient to address problems rooted in deep-seated social norms and power structures.⁴¹

A transformative approach to capacity building would undertake such an analysis and address the barriers to address global suffering at its roots. Such a detailed analysis would need to be conducted within each particular local context. However, we suggest that the common link between each problem relates to a lack of fulfillment of the human capacity for the good, falling short in the potential for human dignity. Following the earlier discussion, this diminished dignity reflects not only the dearth of dignity experienced by suffering populations but also a want of human dignity as expressed by others. It is not merely a problem with insufficient food or water or medical equipment but the human decisions that contribute to human devaluation through conditions such as social injustice, human rights abuses and violent conflict.

The dialectic of dignity comes about when there is a tension between the potential for human dignity and the actual manifestation of dignity in the current situation. Human dignity is a foundational global ideal which Moyn attributes to its inclusion in the Charter of the United Nations.⁴² Given that human dignity is a core value of the humanitarian charter⁴³ as well as both physician and nursing professional codes of ethics ^{44, 45} we would expect the consciousness of humanitarian global health care providers to be attentive to this gap. As noted by Freire in his seminal work focusing on liberation of the oppressed, "Concern for humanization leads at once to the recognition of dehumanization, not only as an ontological possibility but as an historical reality"⁴⁶

Awareness of the dialectic of dignity stimulates a process of inquiry to determine why dignified human living is not being fulfilled. Problems with hunger need to be met with food provision. Inadequate food availability needs to be met with improvements in the infrastructure. Inequities in the social infrastructure need to be addressed with changes in social norms, including policy and culture. The provision of food to the poor depends upon multiple conditions but ultimately is dependent upon human beings making good and fair choices.

Ultimately a transformative approach calls for a transformation of global human consciousness towards a realization of the value of human dignity for all human beings. Walker discusses the importance of the values-based ethical foundations of humanitarianism. Following Pictet, he asserts:

Humanitarianism acts to cure but also to prevent suffering, to fight against evils, even over a long term of time. Through a focus on the causes of suffering, through programming that seeks to maximize disaster and war victims' ability to take control of their futures and build their livelihoods upon their terms, humanitarianism can and does add to efforts to support universal rights and justice.⁴⁷

Slim also emphasizes the importance of humanitarian values. He suggests that new forms of agency are needed, such as advocacy, in which humanitarians influence the realization of humanitarian values in society so that humanitarian action is not needed.⁴⁸ Such a cultural transformation would be the ultimate expression of capacity building that aims "to make yourself redundant".

LONERGAN'S PHILOSOPHICAL APPROACH TO HORIZONS AND DIFFERENCE

Lonergan's philosophy about differences in horizons can offer some clarity about the levels of capacity building. Lonergan describes the horizon as a boundary of each person's present state of knowledge and concerns. The realm within the horizon consists of a person's current state of knowledge plus questions that the individual does not know the answer to but can at least raise, considers worthwhile and has some idea of how to go about answering. The realm beyond the horizon encompasses questions or concerns that a person cannot raise, or does not understand how to answer or considers not worthwhile or believes to be futile.⁴⁹

The disproportionate scales of values described by Solzhenitsyn can be considered as differences in horizons. Problems arise when we become so fixed in our own horizons that we are inattentive to the horizons of concern held by Others. This narrow-sightedness allows disparities in scales of values to remain unchecked and constrains human capacity.

Horizons then are the sweep of our interest and of our knowledge; they are the fertile source of further knowledge and care; but they are also the boundaries that limit our capacities for assimilating more than we have already attained.⁵⁰

Humanitarian global health care can be viewed as a process of expanding horizons in which individuals encounter the lives and the troubles of different peoples.

Their experiences raise further critical questions and expand previous boundaries of knowledge and concern.

Lonergan describes three types of differences that can arise between people with different horizons of knowledge and concern. One type of difference is complementary. Complementary differences arise between individuals with different sets of knowledge and skills who together can achieve an outcome that none could achieve alone. The second type of difference is genetic which reflects differences in stages of development. The third type of differences are dialectical. Dialectical differences are actual differences reflecting contradictions that can only be resolved through a profound transformation in views of knowledge, values and/or spirituality. A dialectic occurs when there is some dimension of a person's beliefs or behavior that must be transformed.⁵¹ Lonergan's view of dialectic is not the type of opposition that can be synthesized at a higher level but rather an indication that something needs to be profoundly changed.⁵² For example, the contrast between respect and discrimination would be considered a dialectical difference.

Dialectical operations, for Lonergan, require distinguishing truth from falsity, the good from that which is not good and/or loving actions from those that are not loving.⁵³ This is a process requiring critical self-reflection. The experiences of these humanitarian providers are suggestive of dialectical processes in that they engaged in self-reflective actions that affirmed positive values such as human relationships and rejected negative values such as materialism. The dialectical issues in question were not merely something external to themselves but involved choices to which providers had a personal connection. For many this involved feelings of disruption, turmoil, and ultimately, transformation.

This conceptualization can shed light on the three levels of capacity building described above. The first level, augmentation of services occurs when transnational providers assist local providers to meet health care needs, particularly during times of crisis. This could be understood as the synergy of *complementary* skills of local and transnational providers working together to meet community needs. The second level, knowledge and skill development, can be viewed as a *genetic* approach to differences in which transnational providers from more developed health care systems assist local providers to advance their own skills and knowledge. The third level, transformative capacity building, requires addressing dialectical issues in which the situation at hand is inconsistent with human dignity. These may be problems such as social injustice, human rights violations or violent conflict. These types of issues cannot adequately be met merely by augmentation of provider services or staff development. Actions must work toward changing the underlying problems, which requires individual and collective genuine self reflection. In each context we must distinguish that which is true, good and loving from that which is not.

Reconsidering Outcomes

Evaluation of health care interventions is typically done through measuring outcomes. Our understanding of what sort of outcomes we are aiming for thus becomes critical. The theory of transcendent pluralism identifies three types of outcomes that must be considered with any action. These include the physically sensible effect, the

self-constituting effect of decisions on our own good will and the transformative effect of our actions influencing the development of good will in others.⁵⁴

Evaluation measures are often limited to sensible outcomes that can be calculated in a quantifiable fashion. Sensible effects are important and include very important indicators such as maternal and infant mortality. But Lonergan argues that with each action we are also shaping the development of our personal capacity for good will.⁵⁵ So we must consider a second "self constituting" outcome. And beyond that, the theory of transcendent pluralism has introduced the "transformative effect", which is the influence of our decisions on helping others to advance in good will.⁵⁶

Humanitarian capacity building has the potential to encompass all three levels of outcomes. Indeed the study findings indicated that providers witnessed physically sensible health outcomes in the populations they served. Providers also experienced the self-constituting effect, describing their experiences as deeply meaningful and personally transformative. Some providers also shared stories in which therapeutic relationships had some transformative influence on local individuals, both patients and colleagues.⁵⁷ The study results suggest that the encounters within humanitarian intervention can lead to a *mutual* capacity building. Ultimately capacity building becomes a mutually transformative process as the humanitarian both influences and is influenced by other people in the field.

These experiences are the most rewarding experiences I've ever had. I feel I'm making the greatest contribution that I could when I'm in these settings. . . . I feel like I'm a better person. . . . It's making me more of what I want to be.

While these three types of outcomes can be realized at every level of capacity building the third type of outcome, the transformative effect, is particularly critical to transformative capacity building. The transformative effect relates to the influence of our words and actions on others. It is critical that we consider these broader outcomes because addressing dialectical barriers to capacity building cannot be done at the empirical level alone. It requires a transformation of human consciousness.

The notion of a broader transformative effect was explored in this study by asking the participants if they had spoken or written about their experiences after their return and if so were they aware of trying to convey any particular message to people. A number of participants had provided presentations about their humanitarian work to professional and/or lay audiences. Most of these focused on the practical aspects of global health care although several participants sought to raise awareness about the terrible conditions that people faced and the overwhelming need for more services. Some emphasized the responsibility to address the underlying causes of human suffering.

I talk about what we saw, what it was like and how there were wonderful people. . . They're one of the most warm and loving people I've every met. And yet they're going through these horrible atrocities. War that's just awful. And yes we should feel responsible for that. We should do something to stop that. . . . when it comes down to it – they're us. They're just born in a different place. That's all. And grow up in a different way.

But they're still people. . . . I usually try and make that point. I think that's the most important one.

Challenges to a Transformative Approach

Despite some outreach to share their experiences and increase awareness, most of the participants did not indicate any purposeful or sustained efforts to effect transformative change for underlying sociopolitical issues. The reasons for this were not explicitly explored but might include factors such as being focused on urgent needs in the field, lack of knowledge or connections for engaging in advocacy, being an outsider and/or language and cultural differences. For example, some providers described ethical dilemmas when witnessing local cultural practices that were harmful to health. They were uncertain as to whether they should try to change entrenched cultural traditions.

I felt like maybe I would want to speak out . . . but I would hold back for cultural sensitivity. And certain things like especially with that female circumcision . . . I just want to put my fist down and say that's just wrong. But, that really isn't my issue and there were whole villages that believed in that. I couldn't - I couldn't be the one that went in and changed their minds.

Another provider discussed caring for a young boy sick with pneumonia. Her team was able to obtain medical care for him but this participant had concerns that the child may have been neglected due to a cognitive disability:

I think culturally he was not accepted in his family. So for me it was - is this a medical thing or a cultural decision and how much do we give and how much do we let the culture take over? So it was almost an ethical question for me . . . I-I often think about that little boy and he was probably being starved because he had so many limitations and there were so many other children.

In both of the above situations, the study participants faced dilemmas over competing principles: being culturally sensitive versus promoting health. This left them feeling unsettled. Moreover, these providers felt they were not in a position to influence change. As noted by another participant who faced dilemmas over witnessing clinical practices that did not meet the standards of her practice at home, "Culturally you don't really know what the standards are there. So you're visiting; you don't really know how much of effect you can have in a week on the way that people do things all the time."

The experiences of these providers highlight the challenges in addressing cultural practices that negatively impact health. Further research and education is needed to guide providers on these issues, particularly in settings in which providers are cultural outsiders within time-limited deployments. Longer time commitments with partners abroad may offer more opportunities to build relationships and address the need for change.

Another challenge is the humanitarian principle of neutrality by which providers are given access to care for a population within a conflict area but are not supposed to

become involved in advocating for either side. This can be particularly troubling when issues such as human rights abuses are present. This thorny issue is being debated within the humanitarian community and is beyond the scope of this paper. However, some have suggested that neutrality be considered as a *strategy* to be used to gain access in particular contexts rather than a principle that is universally applied.⁵⁸

TOWARD A HIGHER VIEWPOINT OF CAPACITY BUILDING

While these challenges might place restrictions upon certain contexts, agencies and providers, they need not constrain humanitarian action as a whole. A more active stance to address socio-political barriers to capacity might be taken through collaborative efforts by different providers, different agencies or even the same providers working at different times and in different roles.

Let us now return to the definition of the word "capacity" in a general sense. The origin of the word "capacity" came into usage in the fifteenth century and can be traced to the French word "capicité" which means the "ability to hold" and from the Latin "capacitatem" meaning "breadth, capacity, capable of holding much".⁵⁹ This background translates to the typical usages of the word such as a stadium filled to capacity or to fulfill one's capacity for a particular skill. The very literal image of "holding much" can help us appreciate that holding much is not only a matter of picking up more and more things but to increase in the skill of holding. And occasionally it may require us to set aside an object that we are holding in exchange for another of greater value. Therefore the act of holding much requires discernment, choice and decision. And unlike a fixed physical object, human capacity has the potential for flexibility and growth. Capacity-building is a process of development and change. Indeed, Lonergan emphasizes that human consciousness offers the possibility of intellectual, moral and spiritual self-transcendence.⁶⁰

A broader definition of capacity-building is needed that reflects the human potential to realize human dignity in global settings of need. We believe that traditional disaster response and development activities need to be viewed as part of a larger whole and continuum of action. Indeed, many providers, including those in this study, intervened in both disaster and development phases. This raises an important question: Does the title "humanitarian" adhere to a particular set of circumstances or to a person acting with a particular set of values?

A broader view of humanitarianism would be consistent with the approach advocated by Christoplos who notes that, "a long-term perspective is needed, with longer-term funding, partnerships and engagement in processes bridging the divide between humanitarian and development programming".⁶¹ He proposes implementing different types of capacity building during different phases of a disaster.

The rigid distinction between relief and development is in itself a barrier to capacity building. And beyond relief and development, collaboration is also needed with those who are working to advance human rights, to achieve social justice and to bring peace in settings of violent conflict. A broader and long-reaching continuum of humanitarian action can be realized through true collaboration and partnership amongst individuals and agencies: North, South, East, and West. Humanitarianism, guided by its core values, particularly human dignity and humanity, could be the central

framework through which various actors and agencies collaborate across the spectrum of capacity building.

Education of health care professionals who engage in global health practice is critical. Providers need to be well prepared in order to determine the appropriate level of capacity building for each particular context. They will also need the skills to provide capacity building interventions ranging from augmentation of health care services to education and, when appropriate, transformative skills such as conflict resolution and/or political advocacy. For example, one approach might be to educate and engage returning providers in outreach efforts such as advocacy for populations that they cared for in the field. It is possible that such engagement might help with reentry alienation. This could be an area for future research.

Transformative Solidarity

Participants described certain principles in their global health practice that could be viewed as enhancing capacity-building. These are listed in Table 1.

Table 1: Capacity-Building Principles in Global Health Practice

Listening	Building relationships	Mentoring others
Humility	Mutual exchange	Making oneself redundant
Respect	Empowering others	Leaving something behind
Promoting dignity		-

It is critical that any efforts towards capacity building, whether through augmenting care, development or transformation be consistent with principles of good practice in global health. Moreover such activities need to be conducted in collaboration and solidarity with local partners. Therefore the approach we are recommending for the third level of capacity building is one of transformative solidarity⁶² in which humanitarian actors help local communities in the struggle for transformation. Humanitarian providers can work with local communities to identify barriers to capacity building. This is not imposing views from the outside but working *with* others, applying principals such as respect and humility.

It is also important to recognize that the barriers needing change may not be rooted in the local level. The barriers may arise from the actions of other States and non-state actors including foreign policies of the transnational providers' own government. For example, the first author of this paper has been influenced by experiences in the field to engage in advocacy for changes in U.S. foreign policy upon return.

LIMITATIONS

This study was limited by its sample of U.S. health care providers from a single institution. Sampling providers from other institutions and other countries may broaden the findings. For example, it would be helpful to compare the experiences of providers from high and low resource nations upon return to their own countries to examine if the "dialectic of dignity" is experienced to the same degree.

CONCLUSION

In summary, we suggest the need for a higher viewpoint of humanitarian capacity building for the human good at the levels of augmenting care services, assisting with the development of local providers and systems and transforming underlying socio-political barriers to capacity. Experiences in the field provide transnational providers with insight into the underlying social situations that give rise to widespread disparities and suffering. It is critical that the humanitarian enterprise be broad enough not only to alleviate suffering but to address its underlying causes. Education is needed on all levels to enhance the capacities of humanitarian health care providers for providing care, teaching and actions of transformative solidarity. We must enhance the skills of the capacity builders so that they in turn can enhance the capacity of others. An expanded notion of humanitarian intervention can lay the groundwork for capacity building interventions ranging from providing care to development to transformation.

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Digitalizing Disease Surveillance: The Global Safety Net?

Clare Wenham

INTRODUCTION

In recent years, outbreaks of infectious disease have been framed by academics, governments and the World Health Organization (WHO) as a security threat.¹ Accordingly, accurate global disease surveillance (and crucially international sharing of this information) has been seen as pivotal to mitigating risks posed by the spread of disease.² Prior to 2005, outbreaks of infectious diseases were reported at the international level to the WHO solely through its member states. However, failings of this arrangement toward the end of 1990s led to a re-evaluation of surveillance and reporting mechanisms at the global level with SARS as a catalyst to the implementation of subsequent revisions to the International Health Regulations (2005) (IHR). These revisions not only dictated an all-risk approach to infectious disease control,3 but also called for a broadening of accepted sources for global disease surveillance. One notable inclusion has been that of digital disease surveillance actors to the disease control landscape. Online digital organizations such as ProMED-Mail and HealthMap now use real time web-crawling and even contributions from individual posts on social media sites to scan for rumors of infectious disease outbreaks. These actors have proven they are able to source and mine data relating to outbreaks earlier than traditional state surveillance infrastructure such as HealthMap's detection of swine flu in 2009 and ProMED-Mail's discovery of the MERS - Coronavirus in 2012.⁴ Any data ascertained is published freely and available online to all. As such, the global public health community has started to use such digital surveillance as part of their epidemiological intelligence gathering activities to get unprecedented and timely information about potential outbreaks occurring in order to spur rapid response to disease threats.

This paper first analyzes the shifting trend in surveillance behavior brought about by the IHR (2005) as well as a global reprioritization of the importance of effective surveillance and reporting since governments have understood the security threat posed by infectious disease. Following on, it examines the role that digital disease surveillance plays in the surveillance landscape and how it obtains data from beyond the traditional sources. This paper shall analyze what normative changes in state behavior in disease surveillance and sovereignty have occurred and have been internalized in order to allow for these digital disease surveillance actors to be incorporated into the global disease surveillance landscape. It shall do this through consideration of the emergent norm of reporting diseases promptly to the WHO. Secondly, it shall assess the shifting understanding of what sovereignty entails, to include an implicit understanding of responsibility to further investigate why states are happy to welcome these non-states actors into disease surveillance infrastructure at domestic and the global level. Finally, this paper shall conclude that whilst states have had to reconstitute their understanding of sovereignty to include these digital actors, this is an increasingly normal practice. Instead of these digital actors challenging notions of sovereignty, they have merely allowed for a redefinition of what sovereignty entails.

SURVEILLANCE

Surveillance, defined as the systematic ongoing collection, collation and analysis of data for public health purposes and the timely dissemination of public health information for assessment and public health response as necessary⁵ is often referred to as the corner stone of public health practice⁶ since without it, public health professionals cannot know what disease threats their populations are facing and as such what they should be controlling, preventing or reporting.

In the post 9/11 era, capacity building in disease surveillance has been seen as especially important, and the intelligence community have become pioneers in creating information sharing environments that capitalize on new intelligence methodologies and more importantly, that foster a culture or sharing information. Interestingly, this same intelligence community started to work alongside the public health sector in order to reduce the security risks posed by disease (notably those with pandemic potential). Accordingly, disease surveillance capabilities have considerably improved with the increased desire to have early warning to detect unusual health events, which may pose a (health) security threat. This has included a broadening of surveillance methods and a normative shift to understand the utility of new surveillance methodologies, including increased syndromic surveillance, increased event based surveillance (biosurveillance), increased use of technology for surveillance activities and the increased realization that anyone in the world can be one incubation away from another (e.g. the threat is ever present).

At the national level, infectious disease surveillance relies on national notifiable disease systems⁹ and is codified in legislation accordingly.¹⁰ Under such legislation there are clear duties for clinicians to notify national public health officials in certain stipulated outbreaks. Following on, these national officials then have an onward obligation to inform the WHO of any outbreak with international concern. However, whilst surveillance activities have traditionally rested upon domestic health infrastructure, with increased trade and travel as a consequence of rapid globalization allowing for rapid transmission of potential pathogens, weaknesses in any individual national health capacity undermine any effort to strengthen global public health security¹¹. Thus, there is a growing recognition that international cooperation for disease surveillance is required. ¹² This to date has been coordinated by the WHO who have a central and historic responsibility for the control of the international spread of disease (IHR:2005). Under the International Health Regulations (2005) governments must notify the WHO of any potential health event, which may constitute a public health emergency of international concern (IHR:2005) and threaten global health security.

IHR AND UPDATES

This new process of globalizing disease surveillance began with changes to the IHR (2005). Towards the end of the 1990s, the global health community began to realize that they were ill-equipped to deal with a truly global outbreak.¹³ It became clear that there existed a bottleneck in the system of the current approach to international surveillance and control in that if a state chose not to report an outbreak to the WHO, there existed no other means by which the WHO or the broader global community could access pertinent disease data to limit its impact or spread¹⁴. Reporting of outbreaks to the WHO had become increasingly infrequent (due to

changes in infection control) as states saw that there were economic and social repercussions for reporting so it was not in their interest to do so. The outbreak of SARS (2002/3) provided a timely reminder of this. Therefore, the revisions to the IHR (2005) overcame this bottleneck by broadening the scope of disease surveillance and control, and provided an opportunity to review and develop new governance structures between multiple actors (rather than simply just states and the WHO) as infectious diseases continued to interact with humans in the national, international and global contexts¹⁵ with little regards for the structure of the international system.

These updates to the IHR (2005) featured two key changes for surveillance and reporting practice: firstly, the scope of disease was widened. Under the IHR (1969), states were only obligated to report outbreaks of cholera, yellow fever and plague. However, Article 7 of the 2005 revisions include the requirement to report 'any public health event of international concern (PHEIC).'16 This broadened scope from three diseases and mandated an all risk approach¹⁷ to surveillance in line with contemporary security discourse, (which included all potential pathogens of concern, whether they be manmade (e.g. bioterrorism) or naturally occurring). Secondly, the revisions facilitated the expansion (or globalization) of sources able to report potential outbreaks to the WHO. Article 9 of the IHR(2005) states that 'WHO mau take into account reports from sources other than [state] notifications or consultations and shall assess these reports according to established epidemiological principles and then communicate information on the event to the state party in whose territory the event is allegedly occurring.' This revision allowed for a plethora of non-state actors to take part in a new landscape for global disease surveillance. This new landscape was premised on the implicit understanding that no one state or single institution has the capacity to respond alone to international public health emergencies caused by epidemics and new emerging infectious diseases. 18 As such a range of sources were empowered to provide disease reports and WHO was empowered to act upon these non-state sourced reports as it saw fit in order to ensure global health security. 19 One such example of these nonstate sources is that of digital disease surveillance organizations such as ProMED Mail, HealthMap, Biocaster, FluNearYou, EpiSpider and GoogleFlu Trends.

DIGITAL DISEASE SURVEILLANCE

Internet based technologies such as social networking, wikis and blogs led to an explosion in harnessing the wisdom of crowds offering convenient instant access to a range of new information and sources. This is no less apparent than in disease surveillance where the internet is revolutionizing how epidemic intelligence is gathered. Digital disease surveillance allows for a vast amount of real time information about infectious disease outbreaks to be collected from various webbased data streams. This includes news sites aggregators, social media sites, blogs, individual user posts and other online information sources. Between these sources it is often possible to detect the first murmurings of outbreak disease occurrence. These resources support outbreak awareness by providing real-time, highly local information (as they are connected to GPS coordinates) about disease prevalence, even from areas relatively invisible to traditional global public health efforts for political, geographic or economic reasons. Furthermore, such systems can improve timeliness, completeness and analysis of data collection whilst also freeing the need for considerable human resources.

In recent years, many such actors have been established, and are mining wide range of web sources continually, as well as instigating a normative change in how surveillance is carried out by increasing the availability and functionality of such sites to get increasingly useful real time epidemic information which would be unavailable from traditional sources. Collectively through using data not routinely collected through government channels, these sources provide a view of global health that is fundamentally different from that yielded by disease reporting by traditional public health infrastructure.²³ Examples of such systems include HealthMap and Biocaster which use data from aggregated news feeds, ProMED-Mail which uses individual clinician's updates, FluNearYou and FluSurvey which examine weekly user feedback to compile real time cluster maps, and Google Flu Trends which harnesses search engine data to monitor for potential symptoms frequently entered. Although this list is not exhaustive, this paper focuses on those of HealthMap and ProMED-Mail as representative of this emerging trend in epidemic technology. These have been chosen as they are two different processes, but yet representative of wider trends of the potential methods of obtaining data from the web – one automated and one with human analysis and input. They are also the two most frequently used sources of digital disease awareness by states and the WHO.²⁴ Furthermore, they are the two sources that are still currently active and have not had their remit cut due to funding limitations.

HealthMap, is a freely accessible automated real time surveillance system that monitors, filters and visualizes online information about contagious diseases threats, pulling from over 20,000 website sources every hour, many of which come from news aggregators such as Google News, Factiva, Al Baba.²⁵ Through this approach, they generate a unified and comprehensive view of current potential outbreaks in contemporary space and time worldwide. The algorithms scan websites twenty-four hours a day, in 6 different languages, producing upwards of 300 reports per day to be shared with their users on their open access web-platform.²⁶. Their unique users number up to 20,000 per month, and include a range of practitioners from libraries, health departments, government departments, multinational agencies, public health teams and individuals. The advantage of such a system is that it is automated. Algorithms locate stories in news feeds which may be of interest to public health specialists and these are then published on the website. This means that it is a rapid automated upload of data and doesn't have the cost or time delay associated with human analysis of the items. However, this advantage can also pose a disadvantage as not all entries have the relevant human oversight and commentary which may mean that they are not as pertinent for disease control or as rigourously defended as coming from legitimate sources.

An alternative approach is that of ProMED-Mail that acts as a list-serv collecting and collating reports from individual medical and public health professionals in their network (rather than media sources). This system was originally intended as a professional development website for medics to share practice, experience and seek professional opinion. However, this system has proved multi-purpose as it also is able to track and monitor viruses circulating through their presentation in clinics or healthcare centres worldwide²⁷. When received, the reports (usually coming from medical staff) are analyzed and edited by staff to ensure their epidemiological accuracy and relevance. To date they have over 45,000 subscribers in 188 countries. The pertinence of such a system is that the human element of the system at both regional and global levels ensure that human analysis is included in each post, so as to ensure that the offerings are meaningful in public health terms.

These reports are then distributed to the listserv ensuring that registered users receive outbreak information directly to their inbox.

Accordingly, these two digital disease detection bodies (as well a host of other digital organizations in disease control) are able to find new sources of disease pertinent information beyond the traditional national – international infrastructure, which can suffer from bureaucratic lag times and requires considerably greater human input. For example, H1N1 was first detected in Mexico by Healthmap in April 2009 before the WHO received the official report²⁸ and the MERS-CoV outbreak was first picked up by ProMED-Mail in 2012.²⁹ Furthermore, with the rapid growth of Internet users and content over the past decade, it is now possible to have reports relating to outbreaks in much of the world, 30 thus actively gleaning information from areas where domestic surveillance infrastructure is lacking and this information would not be available from the government. Although there are still considerable gaps in the geographical coverage of the scope of digital disease detection, this is continually improving with more languages and sources being incorporated into the horizon scanning process.³¹ A further rationale for making use of novel digital sources of epidemic intelligence is that they can best meet the dual use needed to assist regions without the capacity to detect outbreaks and learn of outbreaks despite any state's (or institution) attempts to cover them up. 32 As such, this innovation fundamentally re-conceptualized the manner in which surveillance is carried out with new technological capacity offering the potential to build an active global surveillance system of infectious disease outbreaks, and potentially overwriting national infrastructures, which would never have previously been possible. As such, the explicit authorization for the WHO, under IHR (2005) to gather information from non-states sources, such as these digital ones, is a genuine advance towards a more effective globalized system of disease control.³³

Moreover, the aforementioned collection of news media reports doctor's professional commentaries are just two of many such sources of digital information that can be used to benefit the public health need to improve detection, response and prediction of infectious disease. Additionally, there are calls for systems to integrate automated analysis of individual health records and other administrative data.³⁴ Furthermore, the information generated from digital disease surveillance organizations pales in comparison to the potential collective intelligence that can be garnered from engaging with public participation in surveillance efforts. For example, an estimated 37-52% of Americans seek health-related information on the internet each year, and they use search engines to research symptoms. 35 A study of using data generated from Google searches was carried out to see whether clusters of disease can be ascertained through such enquiries. Although there have been concerns raised about its accuracy, the algorithms for data will presumably be honed to harness this potentially powerful data source. 36 Furthermore, digital systems such as FluNearYou in USA and FluSurvey in Europe actively seek members of the public to inform online portals of their health status on a weekly basis to use as baseline data and early warning system for clusters of outbreaks of influenza like illnesses.

STATE INTERACTION WITH DIGITAL ACTORS

While it is undeniable that the Internet can provide a channel for powerful data collection, the utility of any surveillance system is determined largely by effective analysis by its users. Such novel systems must ensure that data collected is being used to improve health rather than to keep machines busy.³⁷ If an outbreak is

detected by any system, the Ministries of Health where the suspected outbreak is located need to confirm this before any action can be taken at a global level. Standard epidemiological procedures are maintained and response is based on the typing of the pathogen and the professional opinion on how to respond. In fact, it could be said that as important as disease surveillance technology are the scientific advances in genotyping allowing for rapid analysis of disease. This includes both the state's response in the field to limit the physical spread of the outbreak, but also at the diplomatic level to manage any arising socioeconomic repercussions. As such, although the WHO or other actors may become aware of the start of an outbreak through digital systems, they are not able to take action or precautions to limit the spread internationally without official confirmation from the member state where it appears. Surveillance may be globalized, but response still remains the national remit.

As such, although digital surveillance actors play an increasingly important role in global disease control (due to their technical ability to reduce the time it takes to ascertain disease pertinent information), each of them operate in a world polity fundamentally organized by states which remain the basic actors in the global health landscape. However, there is an increasing relationship developing between these two, both in practical and more normative ways. First and foremost, technically these digital actors can be analyzed as operating beyond the realm of sovereign states as they function purely online. However, this does not mean that they do not rely on states. They have been established in a state system (for the most part USA) and rely on states to provide goods such as unfettered and regular access to internet, ethicolegal freedom to gather information online in this manner, and a legal-political infrastructure to register as entities. Furthermore, they also directly rely on states as a source of epidemic intelligence, a vital factor which is often missed in analyses of their role.³⁸ Governments are a significant source of data acquisition for digital systems such as their active sharing of outbreak information on Pro-MED Mail or their issuing of press releases to be picked up by the data mining algorithms of HealthMap. Similarly, they rely on states to be their audience of the information provided so that verification (and if necessary, response) can take place to inform their posts about potential outbreaks. This can still only be done by states themselves or with their explicit consent for another actor to do so if the state themselves does not have sufficient capacity.

As in other areas of international relations, the precise role of the individual state in any such relationship with non-state actors may vary (some may be more actively engaged in global disease governance and its associated interactions than others), but states of all stripes play a vitally important role.³⁹ What is clear is that when states interact with digital disease surveillance provision, their traditional surveillance systems are not being replaced, rather public health entities are using these non-traditional unstructured and freely available data sources to complement and enhance their traditional surveillance systems.⁴⁰ What we see with the introduction of digital surveillance sources is not a system in which states have been abandoned entirely, but rather a 'states + safety net' that help deal with situations in which a state is either unable or unwilling to report a public health concern.⁴¹

As such these digital disease surveillance actors, in a further iteration of their relationship with states, act as the backstop to ensure greater global health security to limit missed reporting by states (whether intentional or not). We only have to examine the US Federal shutdown of October 2013 to see the safety net in action. During the two weeks of the shutdown, the US Center for Disease Control, as the

federal actor for disease surveillance, was not monitoring any outbreaks occurring within or beyond US borders. As a global actor in disease surveillance with laboratories in seven places worldwide, 42 this posed a threat to global health security as their routine and event based surveillance, used globally as baseline data, was jeopardized for several weeks. However, these digital surveillance systems were able to continue as normal and anecdotal evidence shows that users increased during this period as global stakeholders still wanted to glean information about the global viral status. This offered the globe the opportunity to realize that these digital systems provide the perfect safety net where state capacity is compromised or limited.

NORMATIVE ENGAGEMENT WITH DIGITAL DISEASE SURVEILLANCE

However, in order for a fruitful relationship to exist between states and the digital disease surveillance landscape, it needs to move beyond the technical, and states need to adopt two key norms associated with the IHR (2005) (and more generally with that of global disease governance). The degree to which states take up or internalize these norms in disease surveillance will allow a more productive relationship and show to what extent digital disease surveillance organizations have become a fixture of the global disease surveillance landscape. Firstly, the success of any such relationship is based on a mutually shared understanding of all actors that the IHR (2005) create a new expectation of states to promptly report and verify outbreaks of infectious disease. Secondly, states must recognize a second norm their sovereign responsibility to the global community. These two key issues can be assessed by understanding how and why states have acknowledged such norms to the extent that they feel an obligation to their citizens and other countries to engage in active disease surveillance and reporting. A

REPORTING

Simply put, the IHR (2005) require a much more proactive and expansive notion of what effective surveillance and reporting entail.⁴⁵ This norm of reporting assumes that collective action and an open, transparent approach to disease surveillance remains the greatest method of achieving effective disease control and governance.⁴⁶ There are two strands embodied in this new expectation to report promptly. Firstly, as aforementioned, the IHR (2005) takes an all risk approach to diseases which should be reported to them. This has the ensuing effect that, in theory at least, more diseases should be reported to the creating a more regular dialogue between WHO and member states. This constructs an environment which encourages reporting and sharing of disease pertinent data as a regular occurrence, and in doing so, may nullify the potential consequences of reporting that states might otherwise fear. For example, the UK hs reported considerably more outbreaks to WHO since the introduction of the revisions of the IHR (2005). There were a total of 3,379 communications between the WHO and the UK National Focal Point between the years 2007-2010. Of these communications, 112 were reports under the IHR (2005) function and only nine were requested by the WHO.⁴⁷ Whilst anecdotal evidence suggests this uptake of reporting is due to the fact that digital disease surveillance can hold states to account for any inactivity, 48 this increased reporting may, in fact, be symptomatic of the normative internalization of the duty to report as states understand the importance of this in order to ensure global health security.⁴⁹ This norm of reporting has been highlighted in the work of Davies who opines that states

increasingly recognize a new duty to report outbreaks to the global community.⁵⁰ Similarly, Kamradt-Scott and Rushton highlighted this duty to report can be seen as a new norm for disease control, which has significant implications for sovereignty.⁵¹ In their collective work, Davies, Kamradt-Scott and Rushton show, using the normlife cycle framework that this norm of reporting has been continually internalized by states who recognized that there has been a change in what is expected of them for disease control; they are to remain transparent as to their viral status and inform WHO of any outbreaks which may be occurring.⁵²

Secondly, and linked to reporting, the notion of transparency has become at the forefront of disease control. States recognize that hiding an outbreak is no longer a viable consideration. Due to the globalized nature of infectious disease in contemporary society, concealment is no longer an option. As posited by one of the key architects of the revisions to the IHR (2005) "In today's information society, you cannot ignore or hide a problem for very long. You can perhaps ignore it or hide an event for a day or two, but after a week it's virtually impossible. WHO and its partners have a powerful system of gathering intelligence that will pick anything up immediately... one of the incentives for countries to report such events is that these will already have been reported via the electronic highway."⁵³

In other words, in an electronically transparent world where outbreaks are particularly newsworthy events (hence their appearance on news aggregators), their concealment is no longer an option for governments.⁵⁴ The ability of the WHO to now gather surveillance reports from digital sources is one of the key distinctions between the former and the revised IHR treaties and represents an example of this new norm of heightened focus on reporting in global disease outbreak control.⁵⁵ States no longer have control of all the disease pertinent information emanating from their borders, as new digital disease surveillance systems offer new eyes and ears to keep watch and hold governments accountable for their response in the face of an outbreak and will highlight states who have (or have not) reported in a transparent and quick manner as per the norm acceptance. 56 This commitment to transparency can be evidenced by the UK's quick response to notify global public health communities about the outbreak of MERS-COV as soon as they had verified and typed the virus. They promptly shared this information with the WHO, but also, in an effort for increased transparency, shared the details through social media and their website so as to ensure that digital disease surveillance organizations would pick this up and the disease pertinent information would be available to all.⁵⁷ Similarly, Cambodia can also be seen to have understood the trend for transparency. During their outbreak of Hand, Foot and Mouth Disease in 2012, they were keen to highlight that they reported this to the WHO under the terms of the IHR (2005) prior to this outbreak being picked up by any digital disease surveillance system.⁵⁸ This approach to reporting and sharing outbreak data could be misconstrued as states feeling pressured to report due to the existence of digital disease surveillance into the global disease governance landscape, and a desire to report outbreak on their terms, rather than risk rumors which may be more damaging than the outbreak itself. However, this would not account for the frequent reporting of diseases, which do not make the criteria of a public health emergency of international concern. Rather, state's active engagement in sharing data with WHO and through engaging with online sources can highlight that states have understood that global expectations of them have changed, and that this norm of reporting has been well and truly accepted.

RESPONSIBILITY

Inextricably linked to the norm of reporting has been the expectation by states to reconceptualize their sovereignty to include a notion of inherent responsibility in terms of disease control. This concept of responsibility recognizes that sovereignty is not just a blank check to be interpreted as each state may wish but that it involves inherent responsibilities, which states must fulfill. This, in turn, is meant to push states to behave in particular ways to become 'good international citizens.' Such example of a good international citizen would be to ensure that the norm of transparency and rapid reporting are adhered to. Based on the work of Deng et al, and then consolidated through the findings of the International Commission on State Sovereignty and the High Level Report of the UN, this understanding of sovereignty as responsibility confers a set of mutually constructed responsibilities onto states which has had increasing traction in the area of disease control. Such a normative code is anchored in the assumption that in order to be legitimate, sovereignty must demonstrate responsibility not only to their national constituents, but also to the international community.

Davies and Youde argue that the WHO increasingly use the rhetoric of sovereignty as responsibility to their approach to global disease governance and their interaction with states. 63 Through such language and conceptualization, it is hoped that member states would wish to uphold the core competencies contained in the IHR (2005) rather than risk being named and shamed by the international community for not doing so and thus not being a responsible sovereign. In such framing, if a state delays or does not report outbreaks of infectious disease in a timely and transparent manner, then they would not be acting responsibly. The development of technological capacity (such as digital disease surveillance) has meant that non-state actors can hold states to account and show them up for acting irresponsibly. Instead of each state's infrastructure holding all the strings, medical professionals and the broader media have been able to assume a parallel role in the reporting mechanisms of global health and are able to report these to the WHO accordingly. In doing so, it would become apparent whether the state reported in a transparent manner as required of them. The state may worry that a digital body may expose their inactivity leading other states to condemn such inaction and thus prevent its active participation in other elements of the international community.⁶⁴

Heymann argued that the introduction of these new sources such a digital disease surveillance has brought about a behavioral change (norm) where countries may be more willing to forego the exclusive privilege of reporting and instead may prioritize their responsibility to the international community and WHO in heightened global disease awareness over the political and financial costs of not doing so.⁶⁵ As a continuation, it could be perceived that the introduction of non-state digital actors changes the surveillance dynamic between the WHO and member states in ways that favors global health security over national sovereignty.⁶⁶ Such an understanding requires responsibility to be shown towards the global population in protecting them from the threat of disease. However, this is not the only responsibility a state considers when analyzing the area of disease control. A state may feel responsibility towards its own population (or that of the international population) to ensure their ongoing health, but there is also an embedded responsibility to their wider state concerns such as a continuing thriving economy, trade routes, tourism, regional and global stability and social standards of living.

Such a question of this tension of domestic responsibilities compared with a state's international or global responsibilities needs further consideration.

RECONSTRUCTING SOVEREIGNTY TO INCLUDE DIGITAL DISEASE SURVEILLANCE

Although through the introduction of digital disease surveillance into the global disease governance landscape, states may have lost their omnipotent ability to account for and protect against the socioeconomic implications of outbreaks of infectious disease accordingly (e.g. trade bans on pig exports from Mexico after the outbreak of Swine Flu in 2009), this does not represent a challenge to their sovereignty. In fact, not reporting and not acknowledging the norms associated with sovereign disease reporting has become more of a threat to sovereignty than the reporting itself. We can see this through the activity of Vietnam and Indonesia during H5N1 who were criticized for not acting responsibly, in that they did not report the presence of the virus quickly enough.⁶⁷

Whilst it is apparent that, for the most part, states started to adopt this norm of promoting global responsibility in the area of disease control, this does not infer that they are 'losing' sovereignty. Understanding the inclusion of digital disease surveillance into a state's surveillance practices requires revisiting the concept of sovereignty. Instead of taking sovereignty to be an analytical given, it is important to unbundle the concept to assess how these actors may impact on state behavior and vice versa. To do this, we must move away from seeing digital non-state actors challenging state sovereignty in binary terms. This hasn't occurred as states have been willing to engage with these actors and to change their understanding of expected behavior as sovereigns as a consequence. States are not simply agreeing to sacrifice portions of their sovereign privileges by complying with international standard settings⁶⁸ under the IHR (2005). Instead, by including this normative behavior in their state practice, states are reconstituting what it means to be a sovereign. Disease sovereignty has been reconstructed in the face of digitalization of surveillance to ensure the norms of reporting and responsibility are incorporated into what a sovereign should be and in doing so, it becomes apparent that states recognize that they themselves can benefit from these actors involvement in the landscape of global disease governance.

As such, sovereignty should not be considered as a constant, but it is a dynamic process through which states are able to re-identify and reconstitute what it entails. Constructivist literature emphasized the extent to which norms associated with sovereignty have been dynamic and subject to change, and this interaction between states and digital actors for disease surveillance is no exception. In this instance the expression of sovereignty is impacted both by the interaction with digital disease surveillance and the WHO, but also by diverse underlying assumptions of sovereignty and responsibility, based on different domestic political priorities. Agents (states, global disease governance framework) through their discourse and practice (e.g. discussions about responsibility, reporting and by showing these in action) contribute to the production and reproduction of sovereignty. To

CONCLUSION

This paper showed how the scope and role of disease surveillance has expanded in the last decade, both in terms of its globalization, the legal framework to support it, and the norms which have been created to maintain the structure and the technology which has been at the crux of the changes. Developments in internet technology have meant that useful public health data can be obtained from an ever increasing range of sources beyond the traditional state infrastructure. However, rather than seeing this as a shift in power dynamic between states, WHO and non-state (digital) actors attempted to revolutionize surveillance practice, and herald in a new era of global cooperation for infectious disease control⁷¹ with a technological safety net for areas where surveillance capacity is still lacking. Furthermore, the increased means of obtaining disease surveillance data strengthened the relationship between the WHO and member states as it has encouraged greater sharing of information. These non-state, third party actors can also be seen as a supporting link and the middle man to strengthen and triangulate the relationship between the key actors in the global disease governance mosaic⁷².

Furthermore, this paper has sought to show that engagement with digital disease surveillance does not represent a dilution of state sovereignty or a transfer of its meaning to another actor, but that there is a necessary recharacterization of what sovereignty must entail in light of contemporary political understandings.⁷³ This reconceptualization of sovereignty implies that states are not free agents. It assumes a (more) constructivist reading of sovereignty in that responsible sovereigns are bound by the mutual understanding of the international community's norms relating to disease control; those of prompt reporting and responsibility to limit the spread of disease. The inclusion of digital actors has become a fundamental part of the environment in which norms of effective global disease control have become increasingly heralded as best practice to limit the spread of disease. Digital disease surveillance organizations act as a safety net in this instance, to hold governments to account when they are not adhering to the expected behavior. However, seeing as governments are increasingly acting in a responsible fashion with prompt reporting globally, these digital actors simultaneously act to strengthen the disease surveillance mosaic with real-time low cost sources of disease pertinent data.

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Three Eras in Global Tobacco Control: How Global Governance Processes Influenced Online Tobacco Control Networking

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Online networks can serve as a platform to diffuse policy innovations and enhance global health governance. This study focuses on how shifts in global health governance may influence related online networks. We compare social network metrics (average degree centrality [AVGD], density [D] and clustering coefficient [CC]) of Globalink, an online network of tobacco control advocates, across three eras in global tobacco control governance; pre-Framework Convention on Tobacco Control (FCTC) policy transfer (1992-1998), global regime formation through the FCTC negotiations (1999-2005), and philanthropic funding through the Bloomberg Initiative (2006-2012). Prior to 1999, Globalink was driven by a handful of high-income countries (AVGD=1.908 D=0.030, CC=0.215). The FCTC negotiations (1999-2005) corresponded with a rapid uptick in the number of countries represented within Globalink and new members were most often brought into the network through relationships with regional neighbors (AVGD=2.824, D=0.021, CC=0.253). Between 2006 and 2012, the centrality of the US in the network increases significantly (AVGD=3.414, D=0.023, CC=0.310). The findings suggest that global institutionalization through WHO, as with the FCTC, can lead to the rapid growth of decentralized online networks. Alternatively, private initiatives, such as the Bloomberg Initiative, can lead to clustering in which a single source of information gains increasing influence over an online network.

INTRODUCTION

Despite large-scale economic globalization over the past half-century, regulations and norms remain vastly different throughout the world. Even among highly similar industrialized countries such as Canada, the United States, and Germany, there are different social norms and expectations for government and the private sectorⁱ. These variations are often more pronounced between high-, middle-, and low-income countries. Many low-income countries, for example, continue to lack basic environmental protections established over 40 years ago in high-income countries.ⁱⁱ Even where national regulations are in place, rule compliance differs between cultures and governments. Governments, especially in low-income countries, may lack the capacity and political will to implement and enforce existing regulations.

The lack of standard international regulations and norms has created ethical and practical dilemmas for governments, international organizations, and private companies.ⁱⁱⁱ A number of health-related events in the early twenty-first century have illustrated the impact that regulatory approaches (or the lack thereof) in one country can have on the peace and security of another country, including outbreaks of SARS, H1N1, Ebola and MERS, and the continued spread of anti-microbial resistance.. Beyond these 'crises' there is also growing recognition that numerous other determinants of population health, including access to drugs and marketing of harmful products, lie

beyond that regulatory power of any one country - and require multinational collaboration to address effectively. Consequently, for more than two decades there have been urgent calls for global mechanisms capable of regulating transnational forces that affect population health and enhanced global health governance. iv, v, vi

There is broad consensus within both academic and policy fields that global health governance refers to a series of rules, norms and principles, some formal others less so, which are generally accepted by the key actors involved. However, analyses of global health governance have often been problem-based, norm-driven, and highly contested. Different frameworks have been influential over time, varying across global health issues and interests. The 'chaotic' nature of global health governance, both in its understanding and its application, have undermined efforts to advance the discipline. Consequently, there continues to be the need for analytical analysis of the functioning, influence, and impact of various governance approaches.

The global tobacco epidemic provides one of the best illustrations of the challenges that globalization presents in providing and protecting health within our fragmented global regulatory system, as well as a framework for studying different governance approaches. The successful transnational tobacco industry has used numerous elements of globalization - including trade liberalization, foreign direct investment, and global communications - to expand its markets to low- and middle-income countries where effective tobacco control programs are not in place. As a consequence, global health has been substantially diminished. Tobacco-related deaths, a completely manmade epidemic, have become the leading cause of preventable death in the world. Tobacco kills more people than HIV, malaria, and tuberculosis combined. In 2013 alone, tobacco killed nearly six million people. More than five million of those deaths resulted from direct tobacco use, whereas more than 600,000 were the result of nonsmokers being exposed to secondhand smoke. Based on current trends, tobacco-related deaths are projected to reach eight million per year by 2030, with approximately 80% of those deaths forecasted to occur in low- and middle-income countries.

In response to this pandemic, the past two decades have witnessed transformational change within global tobacco control governance. The initial expansion of the tobacco industry into emerging developing country markets in the 1980s – 1990s resulted in increasing bi-lateral partnerships between tobacco control professionals and policymakers in high, middle and low income countries. This was followed by global institutionalization in the form of the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC), and subsequently transnational research and policy advocacy supported through significant private philanthropic funding, most notably the Bloomberg Initiative to Reduce Tobacco Use .

Throughout this period, the global tobacco control community benefited from a central and robust online network, Globalink. As early as 1992, Globalink was recognized by both the tobacco industry and WHO for its unique ability to bring together advocates to advance tobacco control policy.xi While Globalink's role in facilitating tobacco control networking has long been recognized, scientific evidence regarding the network's formation and impact on tobacco control governance has been slow to emerge. Previous research examined the relationship between membership and adoption of the FCTC, finding that the likelihood of FCTC ratification was three times as likely when a country was exposed to ratifying countries via Globalink membership.xii

Furthermore, Globalink membership has been found to be correlated to the adoption of tobacco control policies.xiii

More recently, unique features of Globalink, including its two party referral system for membership put in place from the start to exclude tobacco industry interference, has made it a particularly interesting case for social network analysis (SNA). SNA is an analytical approach to studying groups of people and how those individuals are linked together.xiv SNA has been increasingly tied to governance; a growing body of empirical SNA work is beginning to emerge across numerous special interest areas recognizing the importance of understanding the flows of resources and information through social systems to support the evolution of governance regimes, to contribute to social learning, enabling development of integrated policy approaches.xv, xvi, xvii

Chu et al. (2013) used twenty years of Globalink data (1992-2012) to illustrate how to use emerging network visualization programs to explore dynamic changes in online communities over time.xviii, xix Even with its unique double validation method for new members, Chu et al's research found that Globalink's total membership followed a pattern similar to the growth found in other online communities that adhered to a classic diffusion model.xx, xxi Visually, this can be represented by the logistic curve, or Scurve, where growth begins slowly, followed by more rapid adoption, and leveling off toward the tail. However, Chu et al's results also suggested that Globalink experienced unique shifts in its development including the rise of regional groupings not often observed in online networks not constrained by geographical barriers and dramatic shifts in the network's centrality in later stages of its evolution.xxii Consequently, Chu and others called for future research into the systemic determinants of Globalink's unique variations over time.

This paper follows up on these initial findings; focusing specifically on whether, and if so how, network activity within Globalink shifted in relation to major changes in global tobacco control governance. In doing so, we identify how global tobacco control policy and investment decisions may have impacted the way in which members of the global tobacco control community interacted and exchanged information with one another online and discuss the implications of these findings for future global health governance initiatives. This structure of this communication, we argue, is not irrelevant but fundamental in the development and enforcement of the rules and norms that comprise global health governance in regards to tobacco. We begin with a brief background on the history of global tobacco control since Globalink was internationalized in 1992 before detailing the SNA methods used to compare the network between time periods identified in our historical review. We then present our results and discuss how the structure of global tobacco control policies, programs and investments may influence the way individuals throughout the world communicate with each other and receive tobacco control-related information. The paper concludes with a discussion of how social and political processes can influence global communications and the role social networks can be play in achieving more effective global health governance.

BACKGROUND

Between 1992 and 2012 global tobacco control underwent significant changes. Prior to the 1990s international tobacco control networking was largely contained between high-income countries, where tobacco control policy development had been progressing since the mid-1960s. It was not until the late 1980s that individuals in low- and middle-income countries (LMICs) targeted by the transnational tobacco companies began turning to tobacco control experts from high-income countries, with successful tobacco control programs, for advice and technical assistance. XXIII Prior to the Internet this early communication was often long, tedious, and concentrated on bi-lateral relationships. Regardless, significant policy transfer (one country using the policy approaches from another) was accomplished in a handful of countries, such as Poland, Thailand, and South Africa. XXIII

By the late 1990s, social, economic, and political globalization was having an ever-greater impact on national tobacco control efforts. Cross-border advertising, for example, was reducing the effectiveness of long-standing advertising bans. It also became increasingly clear to tobacco control advocates throughout the world that exporting the national tobacco control experiences of high-income countries to LIMCs was not enough to counter an unregulated transnational tobacco industry. The growth of the Internet also allowed for immediate and widespread communication, and a rapid rise in cross-national networking followed. Initial and haphazard tobacco control networking over the Internet received a major boost in 1992 when the American Cancer Society turned over control of GLOBALink (then mainly a domestic US online tobacco control network) to the UICC based in Geneva, Switzerland. The world of cyberspace proved to be an inexpensive mechanism to distribute information anywhere in the world and link advocates. The network's homepage contained news bulletins, electronic conferences, live interactive chat, and full-text databases (including news, legislation, directories).

Global cooperation in global tobacco control received a major boost in 1998 when the World Health Assembly passed Resolution WHA49.16 calling for accelerated multilateral negotiations on a framework convention on tobacco control.xxv Over the following five years, the intense treaty negotiations and associated events raised the political profile of tobacco as a global public health concern and raised awareness of effective interventions among policy-makers. Over 170 countries participated in at least one of the Geneva-based negotiating sessions between 2000 and 2003, along with hundreds of non-governmental organizations.xxvi Regional negotiating blocks, reflecting WHO's regional structure, became a key driving force within the process. Starting in the African region, the various WHO regional offices convened technical workshops and inter-session negotiating meetings that often resulted in regional negotiating positions. Throughout the FCTC process, WHO representatives often claimed that widespread participation in the negotiating sessions and at preparatory meetings intensified international communication about tobacco -and that the information shared would accelerate policy change. Notably, during many of the negotiation sessions, Globalink was commissioned to run the cyber-center within the Geneva Convention Center. Consequently, when national delegates sought access to a computer during the negotiations they were approached about the opportunity to join the Globalink network.

In May 2003, the WHA unanimously adopted the WHO Framework Convention on Tobacco Control.xxvii Many universal elements of national tobacco control policy are included as core provisions in the final text. The FCTC was opened for signature on 16 June 2003 and closed on 22 June 2003, with 168 signatories. By November 2004, 40 countries had ratified, accepted, approved, formally confirmed or acceded to the convention(depending on the country's legal procedures), and on 27 February 2005 the FCTC entered into force. This short timescale makes the FCTC among the fastest treaties in history to be negotiated, adopted and to enter into force.xxviii

In 2006, shortly after the FCTC entered into force, Michael Bloomberg, then mayor of New York City, launched the Bloomberg Initiative to Reduce Tobacco Use with an initial donation of USD \$125 million.**xix* The core objective of the Initiative was to reverse the global epidemic of tobacco use by enhancing capacity for tobacco control in LMICs. A special emphasis was placed on the five countries where more than half of the world's smokers live: China, India, Indonesia, Russia, and Bangladesh. The Initiative also supported tobacco control in Brazil, Egypt, Mexico, Pakistan, Philippines, Poland, Thailand, Turkey, Ukraine, and Vietnam, as well as other countries with a high burden of tobacco use and high potential for successful change. Five key partner institutions were involved in carrying out the Initiative: World Lung Foundation, Center for Tobacco Free Kids, the CDC Foundation, World Health Organization, and Johns Hopkins Bloomberg School of Public Health. Notably, four of these five implementing centers are based in the US.

The work carried out under the Initiative was organized under a technical packaged called MPOWER. While MPOWER's components largely reflected the content of the FCTC, its branding was independent of the prior effort (particularly when it was initially launched).xxx Over the following six years, with additional support from both Bloomberg and Bill Gates, the Bloomberg Initiative grew to over a \$500 million program providing competitively awarded grants to support MPOWER-related projects in select LMICs.xxxi The Bloomberg Initiative represented a major new source of resources and energy in global tobacco control and has been credited for attracting a number of new professionals into the tobacco control field in select countries. At the same time, FCTC ratifications continued. By 2012 over 160 countries were party to the treaty. The FCTC Conference of Parties (COP) also met five times between 2005 and the end of 2012.

METHODS

In reflecting on the history of tobacco control governance since the internationalization of Globalink in 1992, we identified three core eras: pre-FCTC bilateral policy transfer (1992-1998), global regime formation through the FCTC negotiations (1999-2005), and the era of philanthropic funding through the Bloomberg Initiative (2006-2012). We then used these eras to compare the social network metrics of Globalink to see if tobacco control advocates changed the way they communicated with each other during these three time periods. There are a number of traditional, well-accepted network indices and parameters that can be used to describe the structural formation of networks, as well as newer models for visualizing networks over time. We focused on three common SNA metrics: degree centrality, density and the clustering coefficient. Degree centrality measures the number of ties for each node. In the Globalink network, each country's

degree centrality represents the number of other countries it has sent a referral to (outdegree) or received a referral from (in-degree). It provides a metric that can help understand influence and the potential for information exchange. Network density is a count of the number of ties in a network expressed as a proportion of the total number possible. In a network of n nodes and t ties, the density d is d = t/(n(n-1)). Density ranges from o (no ties) to 1, in which every possible tie exists. Clustering coefficient measures the extent of connectivity between a node's neighbors. High clustering indicates that friends of friends are also friends. Individual clustering coefficient scores indicate how connected a node's neighbors are; where a value of 1 means that every neighbor of n is connected to every other neighbor of n (also called a clique). Globally, the metric provides an average of the clustering coefficient of all nodes. A real-world example of increased clustering coefficient is the small world phenomenon, where groups of well-connected people are connected by a few individuals who serve as bridges between clusters.xxxii Like density this metric ranges from zero (no clustering) to 1 (complete clustering).

We used the SNA software package Gephi (http://gephi.org) to conduct our visual and statistical analyses. The final network contains a total of 152 nodes connected by 611 edges. Each node represents one of the countries represented in Globalink, and directed edges connect two countries if a referral has been made between them.

RESULTS

SNA Visualization Interpretation

Static screen shots from the dynamic visualization are presented for each era in Figure 1. In 1992, the founding (US) and host (Switzerland) nations of Globalink existed with a handful of additional nodes developing up over time. While new nodes begin to increase in the late 1990s, Switzerland remains the center of the network with most of the new nodes joining connected directly to Switzerland. In other words, in the early days of the network Globalink staff based in Switzerland acted as the primary referees for most new members joining the network from other countries. Clustering was just starting to take shape among some groups prior to 2000, but centrality still predominantly pointed to Switzerland as the focal point of the network.

Starting in 2000 we see a rapid increase in the number of nodes (countries) represented within the network and increasing ties between them. Switzerland shifts from the center, and clustering begins to take shape around regional and language groups. Consequently, the visualization reflects a more decentralized, regionally-focused, social network (nodes are more dispersed and connected to each other around the periphery of the network). The trend continues until 2006, after which there is a rapid increase in new nodes connecting to one specific country – the United States. As more and more nodes join the network, ties to the United States grow quickly and the social network becomes more clustered in the final time frames (nodes move closer together towards the center).xxxiii

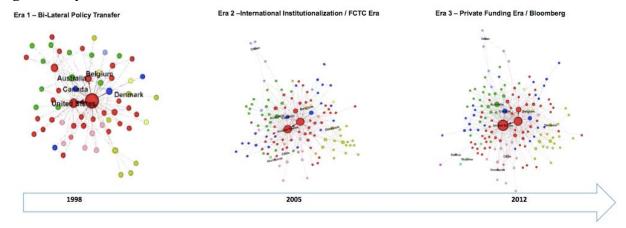


Figure 1: Dynamic visualizations

Statistical Indicators of Centrality, Density and Clustering

We conducted statistical computations using Gephi to measure degree centrality, density, and clustering coefficient for each of the three eras. Values for each era are presented in Table 1. Prior to 2000, membership was driven largely by a small number of members in high-income countries (average degree was 1.91, density was 0.03, and the clustering coefficient was 0.21). Between 2000 and 2006, Globalink is defined by increasing clusters of countries from all xxxiv income levels, largely related to regional ties (degree=2.82, density=0.02, and clustering=0.25). Between 2006 and 2012, the centrality of the United States within Globalink increased significantly, while the network became more clustered (degree=3.414, density=0.02, and clustering=0.31).

DISCUSSION

Increasingly, the role of policy and norm diffusion, or the domestic adoption of international ideas, policies, and norms through cross-national communication and learning, is being recognized as a distinct mechanism of global governance. Growing empirical evidence indicates that loosely coordinated cross-national learning about a policy or norm may gradually build up a critical mass of proponents and increase acceptance in the more reluctant countries' this also can thereby facilitate policy convergence and pave the way for the emergence, modification, and even ratification of international agreements. Consequently, the systematic improvement of the institutional and informational preconditions for policy and norm diffusion, such as support for social networks, may offer a worthy alternative or addition to direct international health governance, especially in areas where international agreements are difficult to reach. XXXVI

Social networks serve as a key platform for the policy and norm diffusion. They provide the channels through which information is communicated over time among members of a social system. XXXVIII, XXXXVIII Depending on the make-up and objectives of specific social networks, they can play very different roles. Social networks can, for example, take the form of international or global issue-networks, such as Globalink, where state and/or non-state actors interact regularly to exchange information and

coordinate national policies and programs. Diffusion of innovation theory suggests that the amount and quality of communication over time can impact decision-making processes of network members and encourage new norm adoption. *xxxix*

The research presented in this paper contributes to emerging literature concerning the relationship between policy diffusion, social networking, and global governance. However, instead of looking at network effects on emerging forms of governance, this study examines the impact of varying governing approaches on the structure of relevant, existing networks. Tobacco provides a strong case example to test this given the development of multiple governance mechanisms and the presence of a strong online advocacy network over the past two decades. Chu et al's earlier network visualization of Globalink's evolution over time revealed a number of expected and unique trends including anticipated initial volatility with little clustering, followed by the unexpected the rise of regional groups, trailed by major growth in the centrality of the US.xl

The results of this study suggest that these shifts in Globalink corresponded closely to external shifts in the global tobacco control environment. Initially, Globalink was driven by a handful of members based in a small number of high-income countries who increasingly brought new partners into the network from LMICs. This is reflective of the bi-lateral policy transfer environment that dominated global tobacco control at the time. The initiation of the FCTC in 1999 corresponded with a rapid uptick in the number of countries represented within Globalink's membership and new members were less dependent on expert high-income countries for admittance into the network. Moreover, the role of WHO regions in the development of the FCTC is particularly apparent within Globalink, in that new members were most often brought into the network through relationships with regional neighbors. These results support earlier arguments that the investment in international institutionalization through the FCTC would lead to the intensification of global communication (more network members) and regional information sharing (clustering of relationships by geography).

These trends in the social network's development, however, did not continue after the conclusion of the FCTC negotiation process. Instead, the network rapidly moved to a much more clustered structure, and the core focused around the United States. While overall network growth slowed during this period (i.e. new countries were not joining the community largely due to saturation), more connections were being made to the United States, and existing ties between the United States and other countries continued to strengthen. In other words, new members who joined Globalink after 2006 most often did so based on their connection to someone in the US and not to someone in their own country or in neighboring countries in their region.

In terms of network theory, during this period the United States emerges as the network's 'technological gatekeeper' in which other members of the network look to a single source for financing, expertise, access to influential decision-makers.xli The significant growth in the centrality of the United States between 2006-2012 is likely tied to the resources US-based members brought to the network as a result of their role within the Bloomberg Initiative. While substantial funds from the Initiative were distributed to LMICs, the funds were mostly channeled through US-based organizations including the World Lung Foundation, the Campaign for Tobacco Free Kids, the CDC Foundation and the Bloomberg School of Public Health. Consequently, the SNA results from this study imply that national or privately driven initiatives, such as the Bloomberg

Initiative, can result in network clustering, with members focusing greater attention on the initiator or funder. Alternatively, the more democratic nature of international institutionalized treaty negotiations led to wider networks with more, often regional, primary information sources.

While structural shifts in Globalink corresponding to changes in the global tobacco control environment are evident both visually and through statistical calculations, the governance implications of these shifts are not. Although an analysis of corresponding policy change during the three eras is beyond the scope of this paper, it is presumed that information shared during the three eras shifted corresponding to shifts in the network's structure. There is no doubt, for example, that the Bloomberg network and funding is tied explicitly to learning and adoption of specific governance approaches as institutionalized through MPOWER. While the contents of MPOWER and the FCTC overlap, there are significant differences when it comes to global governance, with the FCTC emphasizing international coordination, accountability, and industry liability absent in the MPOWER package. Notably the US, despite its central role in the late stages of the network, is not party to the FCTC and does not participate in the FCTC Conference of Parties where global tobacco control is largely negotiated and decided.

From this perspective, the latest stage of the global tobacco network does not reflect the optimal structure or flow of information to enhance global tobacco control governance as incorporated in the FCTC. New global efforts, such as the negotiation of FCTC protocols, may get less attention within the network, as they arise outside of the core US-driven MPOWER agenda and thus are likely absent from the clustered information within the primary global network (at least in 2012), thus implying less learning and consequently less norm convergence around these topics. In the case of tobacco, this mismatch may not been seen as a significant conflict of interest. Tobacco control policy is marked by widespread homogeneity and US advocates remain comparatively engaged in global policy despite their government's isolation. However, it still implies that more culturally and regional specific interventions and approaches get less attention within the network and are less likely to be shared between members. This is likely to be a more significant issue in other areas of global health governance where there are significant competing normative frameworks. In such cases, such network consolidation as witnessed in Globalink could have significant implications on equity, voice and participation.

There are a number of global health initiatives that apply varying approaches to institutionalization and resource sharing, many of which have closely associated social issue networks that could be similarly analyzed. In the case of health security regimes, for example, we have often witnessed the desire to consolidate information sharing through the allocation of resources to official governmental agencies involved in surveillance, monitoring, and reporting disease outbreaks. Alternatively, in responding quickly to large 'grand challenges', a small handful of governmental and non-governmental funders have largely dictated policy and 'evidence' frameworks and given large sums of resources towards those groups they feel best comply with their vision, e.g. the Bloomberg Initiative. Finally, we have seen initiatives targeting the social determinants of health that have welcomed and encouraged broad participation and engagement by various actors, including community-based organizations, such as the FCTC process, environmental policy institutionalization, or the Sustainable Development Goal development process.

There are a number of limitations that should be considered when drawing conclusions from this initial data. First, the rapid growth of network members in Globalink between 1999-2005 also corresponded with a rapid rise in global access to the Internet. Perhaps Globalink membership would have risen rapidly within this period without the FCTC process. However, the regional nature of the network's formation during the period is difficult to explain absent the FCTC process as a backdrop. The centrality of the US could also be explained by the sheer size of the US population and the vitality of its tobacco control community. However, there was not a strong shift in the US tobacco control environment that would explain its increasing global engagement after 2006 absent the Bloomberg Initiative. In fact, the US remained one of only three highly populous countries in the world not to ratify the FCTC (Argentina and Indonesia being the others).

This study also did not collect specific data on information exchanged between countries in the network, simply referral information, and we did not correlate the strength of connectivity to policy advancement. Future research on the topic should explore communication exchange (intensity between members and the content of exchanges) in more detail to make conclusions on the influence of the political and financial environment on the content of information shared through the network and the implications this has on learning and decision-making among network members.

Finally, many shifts have occurred in global social network platforms since 2012, including the rapid growth of other networking sites such as Facebook by the global tobacco control community. Social networking behaviors may shift based on platform characteristics. However, many of the members' behaviors are likely to remain constant. For example, regardless of network platform, tobacco control advocates worldwide are likely to seek out individuals tied to the resources and technical expertise being offered through the Bloomberg Initiative, especially in light of the virtual vacuum of alternative funding for tobacco control in many countries.

CONCLUSIONS

Online networks are becoming increasingly important within global public health research and policy advocacy and may serve as a key mechanism through which to enhance global health governance through policy diffusion. This study contributes to the growing body of literature on how network characteristics lead to effective systems of shared governance and expands the research to the realm of global health governance. Global tobacco control was an early innovator in regards to online social networking and can offer key insight into the opportunities and limitations that such networks offer global health governance.

The most effective social networks expand the capacity of governments and other governing bodies by engaging individuals and organizations' innovative spirit and creativity to address complex problems. This innovation is most likely to arise in networks that diffuse many different perspectives and ideas. This study provides some initial evidence to demonstrate how the sharing of information within one social network, Globalink, was influenced by relevant policy decisions and processes. The findings suggest that global negotiations and institutionalization, as in the case of the FCTC, can lead to the rapid growth of diverse and less centralized social networks. Alternatively, national or private initiatives, such as the Bloomberg Initiative, can lead

to pronounced clustering in which a single source of information gains increasing control over the flow of information within a social network.

All existing forms of global health governance face weakness and limitations. Investment in diverse and robust social networks can provide key unofficial venues in which to improve information sharing, increase consensus, and promote policy advancement. Alternatively, when making strategic policy decisions, national and international policymakers and funders may wish to consider how the structure of their programs and investments may influence the way in which individuals throughout the world communicate with each other and receive information. Their impact on social networking is likely to have a direct impact on the development of their programs and, consequently, on future global health governance.

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Molly Lancaster was a Research Assistant at the Keck School of Medicine of the University of Southern California, Los Angeles, CA at the time this project was undertaken.

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The Age, Gender and Residence Differentials in the Relationship of Intergenerational Relations and Chinese Elderly's Subjective Well-Being

Li Zhang

This research focuses on studying the gender, residence and age differentials in the relationship of intergenerational relations and elderly Chinese's subjective wellbeing. Through analyzing data from the 2011 wave of Chinese Longitudinal Healthy Longevity Survey (CLHLS), the results show that most forms of intergenerational support promote the Chinese elderly's positive feelings and decrease their negative feelings. However, significant age, gender and residence differentials are shown when intergenerational relations affecting elderly's subjective well-being. Specifically, Chinese elderly's psychological well-being is negatively associated with age. The gender differences are mainly observed when financial support/exchange affects elderly's subjective well-being. Receiving financial support from adult children is found to damage male seniors' subjective well-being but improve female elderly's subjective well-being. As to rural-urban differentials, the financial forms of intergenerational support/exchange have a more significant impact on improving urban seniors' psychological well-being; whereas the non-financial forms of intergenerational support from adult children have significantly positive effects on promoting rural elderly's subjective wellbeing. In general, the effects of intergenerational relations on the elderly's subjective well-being are found to be more similar for males, urban and younger (74 or under) elderly. The research highlights that the elderly who are rural, females and aged 75 and over are more disadvantaged groups. They should receive more attention from policy makers and gerontology researchers who aim to promote healthy aging.

INTRODUCTION

With the trend of population aging, social scientists have paid a considerable amount of attention to exploring various factors that promote healthy psychological and physical aging. From a psychological point of view, a group of studies have focused particularly on the elderly's subjective well-being and how it is linked to their intergenerational relations. Intergenerational relations are defined as relations between elderly parents and their adult children (or grandchildren), which normally include financial support, instrumental support and emotional relations. All three forms of intergenerational support could go both ways. When elderly parents receive support from their adult children, they may also provide support to their adult children, such as taking care of grandchildren, doing housework et al.¹

Prior studies have suggested that characteristics of the intergenerational relationship, including quality, relationship strain, patterns of attachment, could affect parental well-being². It has been found that a stronger attachment between parents and adult children usually related to less care-giving burden of adult children and better well-being of elderly parents.³ Under such circumstances, intergenerational support from adult children often leads to better health and well-being of elderly parents.⁴ Intergenerational solidarity theory also explains a positive

association between intergenerational support and elderly subjective well-being from the intergenerational affection and normative solidarity perspective. It argues that intergenerational solidarity is associated with a more positive aging experience.⁵

When elderly parents have relationship difficulties, they often tend to report worse well-being. Intergenerational support for elderly parents from adult children could also be negative when it engenders feelings of dependence and loss of autonomy. Besides of losing dependence and autonomy, Merz and associates (2009) also contend that quality of the relations might be more important for elderly well-being than provision of actual support. If the relationship is low quality, then providing support becomes more burdensome and therefore damages the elderly parents' well-being. In short, previous studies have showed that in the social context of Western world, intergenerational relations could affect the elderly's subjective well-being in different ways, depending upon the quality of the relationship and the strength of intergenerational attachment.

Pertaining to Asian countries, including China, scholars have described the intergenerational relationship between adult children (and grandchildren) and their older parents are as strong emotional closeness, frequent contact, and mutual support. Most studies have documented that good intergenerational relationship promotes the elderly's subjective well-being. Receiving support from adult children can reduce the feelings of loneliness and strengthen intergenerational attachment.¹⁰ Shen and colleagues (2003)¹¹ have found that the Chinese elderly who received more support from offspring tended to report lower scores of loneliness. Deng and associates (2012)¹² have also shown that better intergenerational relations and more social support could significantly improve the elderly's subjective well-being. By examining data from the 2000 wave of CLHLS, Zhang and Li (2004)¹³ emphasize that receiving intergenerational support from adult children, especially from sons, can promote the subjective well-being of the Chinese elderly to a great extent. As to providing intergenerational support to adult children, researchers show that offering support to adult children significantly helps the elderly parents to gain self-respect and self-satisfaction by realizing more of their values through helping adult children. As a result, the elderly individuals report a higher subjective well-being score. 14 Only a few studies have showed a negative association between intergenerational support and elderly's subjective well-being. These studies argue that highly relying on support from adult children may lead to a loss of dependence, which damages the elderly's subjective well-being.¹⁵ To summarize, the majority of the studies have documented a positive relationship between intergenerational relations and Chinese elderly's subjective well-being, regardless of provision to or receipt of support from adult children.

Even though a positive association has been found between intergenerational relations and the Chinese elderly's subjective well-being, it becomes nebulous when the gender, residence and age differentials among the elderly are considered. Put differently: Do the same forms of intergenerational support affect subgroups of Chinese elderly's in a similar manner? The question has not been answered by prior literature. Clearly, there are significant gender differences among older ages. There is also a huge rural and urban disparity in many aspects of social life in China. Those aspects include the way in which the two generations interact with each other, the strength of filial piety et al. In China, urban residents also enjoy better social security benefits, medical care, and health services as compared to their rural counterparts, which may impact the rural and urban elderly's needs when receiving support from offspring. Meanwhile, modernization theories have proposed that urbanization and industrialization decrease intergenerational co-residence and intergenerational

relations. Under this assumption, urban and rural residents may have diverse intergenerational relations, which may affect the elderly's subjective well-being differently.

As to age differentials, most existing studies examine the elderly group as a whole. Indeed, there are significant differentiations associated with age in many aspects. For example, intergenerational support may vary by age. With age increasing, the elderly parents may need more support from adult children. Financially speaking, researchers have found that elderly under age 75 are more likely to rely on their pension and earnings, whereas elderly aged 85 and over tend to rely more on their adult children. Meanwhile, the forms and the amount of support the elderly parents provide to adult children also decrease with age. Moreover, subjective well-being of the elderly may change by age. Researchers have found that negative feelings and signs of loneliness of the elderly tend to increase with age. ¹⁷

Gender differences are also observed in old ages. For example, males are more likely to live with spouses than their female counterparts, which may cause different subjective well-being results for males and females due to their various living arrangement patterns. Moreover, female elderly are found to be more likely to be depressed than males. Elderly women also tend to co-reside with daughters-in-law and to receive assistance from them. The gender of the recipient and provider are also important. Receiving personal care from daughters has been found to be more psychologically beneficial to elderly fathers than to elderly mothers. ¹⁹

Considering the residence, age and gender differentials among subgroups of Chinese elderly, this research intends to improve the existing literature by examining intergenerational relations and elderly subjective well-being by differentiating the Chinese elderly into subgroups. Data is derived from the newly released 2011 wave of Chinese Longitudinal Healthy Longevity Survey (CLHLS). The paper now turns to the introduction of data, measures and methods of the research.

DATA, MEASURES AND METHODS

Data

Data used for this analysis comes from the newly released 2011 wave of the Chinese Longitudinal Healthy Longevity Survey (CLHLS). The CLHLS data were collected by Peking University's Center for Healthy Aging and Family Studies and the China National Research Center on Aging, with support from the U.S. National Institute on Aging.

The 2011-2012 CLHLS wave was undertaken in more than 800 randomly selected counties and cities of the 23 provinces in China (Liaoning, Jilin, Heilongjiang, Beijing, Tianjin, Shanxi, Shaanxi, Shanghai, Jiangsu, Zhejiang, Anhui, Fujian, Jiangxi, Shandong, Henan, Hubei, Hunan, Guangdong, Guangxi, Sichuan, Chongqing and Hainan). The survey covers roughly half the counties and cities of those provinces and the sample areas represent 85% of the total population of China. In the 2011-2012 survey, 3,802 male elderly and 4,603 female elderly (for a total of 8,405) surveyed in 2008 were re-interviewed. Also, 801 males and 982 females (for a total of 1,783) were newly added interviewees. Thus, the 2011 wave included 4,603 males and 5,585 females in the survey. In this research, I exclude those under 65 years of age, which yields a total number of 9679 individuals ranged from 65 to 114 years old.

Measures

1) Measuring intergenerational relations

The CLHLS had a number of questions that can be used to measure the elderly's intergenerational relations. These questions mainly focused on the financial and emotional forms of intergenerational relations. The questions asked financial support for the elderly or financial exchanges between the elderly and their offspring include the following: 1) What is your main source of financial support? The answers included retirement wages, spouse, children, grandchildren, other relatives, local government or community, work by self, and others. I consider this question as an important measure of financial support from the offspring. The analysis codes main financial source coming from children or grandchildren as "1" and "0" if otherwise. 2) How much did you receive from your son(s) or daughter(s)-in-law or daughter(s) or son(s)-in-law or grandchildren last year? 3) How much did you give to your son(s) or daughter(s)-in-law or daughter(s) or son(s)-in-law or grandchildren last year? I consider the questions as measures of financial exchanges between elderly and their offspring. The analysis adds all money received from son(s), daughter(s)-in-law, daughter(s), son(s)-in-law and grandchildren as money received from offspring. Accordingly, the research adds all money given to son(s), daughter(s)-in-law, daughter(s), son(s)-in-law and grandchildren as money the elderly gave to offspring. For these two variables, the analysis then recodes the values as follows: 0/9999 yuan =1, 10000/19999 yuan =2, 20000/29999 yuan =3 30000/39999 yuan =4, 40000/49999 yuan =5 and 50000 yuan and above=6.

Beyond the questions asking financial support/exchange between elderly and the offspring, the CLHLS also had questions asking interactions between the elderly and their children/grandchildren in other aspects. The analysis considers the questions as measures of emotional and other forms of support from the offspring. Those questions include: 1) Whom do you talk to frequently in daily life? 2) To whom do you usually ask for help when you have problems or difficulties? 3) Who is the first person that you talk to when you need to share your thoughts? 4) Who took care of you when you are sick? The choices for answering the questions in the questionnaire included: spouse, son, daughter, daughter-in-law, son-in-law, grandchildren and their spouses, other relatives, friends/neighbors, social workers, nanny and nobody. The respondent was asked to choose three from the above options. If the respondent's answers included "children" or "grandchildren", then the four intergenerational variables are coded as "1", and "o" if otherwise. Based on the questions, the research generates four variables to represent intergenerational relations between the elderly and their children/grandchildren, which are named as "chatting with children", "asking help from children", "sharing thoughts with children" and "taken care of by children." The respondents who did not have children are coded as missing in the intergenerational relation indices.

2) Measuring subjective well-being

The Chinese elderly's subjective well-being is measured by a series of CLHLS questions evaluating the elderly's personal feelings. Those questions are: 1) How do you rate your life at present? 2) Do you always look on the bright side of things? 3) Are you happy now as when you were younger? 4) Do you often feel fearful or anxious? 5) Do you often feel lonely and isolated? 6) Do you feel the older you get the more useless you are? The responses ranged from 1 to 5. "1" represents always or

very good; "5" represents never or very bad. The items are recoded so that "1" indicates the weakest feeling and "5" the strongest feeling. Although CLHLS data was not collected to examine the psychological well-being of the elderly, the above question may not be the perfect indicator of one's subjective well-being. However, Chen and Shot (2008: 1388)²⁰ have pointed out that: "they represent important dimensions of subjective well-being, such as life satisfaction, happiness, and loneness." Thus, the research considers measures associated with the above questions as legitimate indicators of the elderly's subjective well-being.

Following Chen and Short (2008)'s strategy of constructing indices of subjective well-being, the analysis generates three indices by adding items 1 to 3 as an index representing positive well-being, adding items 4 to 6 as index of negative well-being. The above questions are considered independent to each other. Thus, the indices are created by adding the raw scores of all variables in each set and are summary scores for each set of variables discussed above. The logic of constructing the above indices is that each group of variables measures the same concept. This strategy reduces the number of variables in the analysis and improves the efficiency of the regression models that estimate the relationship between intergenerational relations and elderly's subjective well-being.

After summing each set of variables to a single variable, Cronbach's (1951)²¹ alpha is further used to assess the reliability of a given set of variables. The set of items is often referred to as a scale. The reliability alpha (Cronbach's alpha) is defined as the square of the correlation between the measured scale and the underlying factor. It we think of a test as "being composed of a random sample of items from a hypothetical domain of items designed to measure the same thing, alpha represents the expected correlation of one test with an alternative form containing the same number of items"(StataCorp LP 2007).²² The internal consistency coefficients for the two indices are alpha = .51 and .63, respectively. The two alpha values seem to be lower than the alpha value used in other research. But since only three items are used to construct the indices and the alpha value is positively related to number of items used, the alpha values are considered as acceptable. The Appendix specifies the alpha values and the items which are used to compose variables in the analysis

3) Control variables

In addition to the above measures, a number of variables are also controlled. These variables include the elderly's demographic characteristics, such as age (which is measured in chronological years), gender, marital status (widowed, never married, divorced/separated), residence and ethnicity (Han vs. Non-Han). The elderly's socioeconomic status (measured by education and family income prior to the survey year) is also controlled. In addition, whether the elderly's spouse died in the past three years (after 2008 survey) is also controlled since it has been found to be significantly related to one's subjective well-being (Chen and Shot 2008)²³. The research also controls for the elderly's living arrangements, health status and ADL disabilities. Health status is measured by self-rated health (SRH) in a 5-point scale (5=very good, 4=good, 3=so so, 2=poor and 1=very poor) and ADL (activity of daily living) disabilities. ADL disability is defined as whether the respondent had limitations in activities of daily living (ADL) at the 2011 wave. ADL is measured by six items (bathing, dressing, using the toilet, indoor transferring, eating, and controlling bladder and bowel movement). Being incapable to perform any of the six

activities independently is considered as having ADL disabilities. In this research, the ADL variable is coded as a categorical variable (1=yes, 0=no).

Methods

Descriptive analysis strategy and ordinary least square (OLS) regression are used to examine how intergenerational relations are linked to the Chinese elderly's subjective well-being. Regression coefficients are reported here but tables with standard errors are available upon request.

RESULTS

Description of the sample

Table 1 shows the descriptive results of the independent and control variables. The average positive well-being index score for all samples is 11.1. Such scores are higher for males, urban residents and seniors aged 65 to 74. The mean negative well-being score index is 7.0. Such scores are higher for females, rural residents and elderly aged 75 and over. These results clearly show age, residence and gender differentials in terms of Chinese elderly's subjective well-being. The findings suggest that males and urban residents are better off regarding their subjective well-being. Meanwhile, with age increasing, the Chinese elderly are more likely to report lower positive feeling scores and higher negative feeling scores, which indicates that the subjective well-being is negatively associated with age.

[Table 1 is about here]

As to intergenerational relations, about 58% of the Chinese elderly reported that their main financial sources came from their children or grandchildren. This percentage is especially higher for females and rural seniors as compared to their male and urban counterparts (68.1% vs. 45.6%; 66.1% vs. 48.8%). This finding suggests that females and rural seniors are likely to be more financially dependent on their adult children. When age is considered, the results show that the percentage of elderly who are financially dependent on their adult children increases with age. When it comes to financial exchange variables, the research finds that, on average, the Chinese elderly gave 584.7 yuan to their children or grandchildren with a standard deviation of 3239.2, suggesting a substantial variation among samples. Similarly, males and urban residents reported giving more money to children or grandchildren than females and rural seniors (795 vs 413.2 yuan; 876 vs 316.5 yuan). With age increasing, the amount of money the elderly gave to adult children or grandchildren decreases. As to money received from children or grandchildren, findings show that the Chinese elderly generally received much more money from their offspring than the amount that they gave (2378.6 yuan vs. 584.7 yuan). Interestingly, there is no substantial differentiation between male and female seniors when it comes to the amount of money the elderly received from their offspring. Urban residents received a slightly greater amount of money than their rural counterparts. There is no substantial difference by age in this regard.

As to the rest of the four intergenerational relation variables, about 45.0% of the Chinese elderly claimed that they usually talked to their children or grandchildren. There are a higher percentage of females who reported often chatting with children/grandchildren than males. Rural residents tended to be more likely to

chat with children than urban residents. Such a percentage also increases significantly with age. Moreover, a higher percentage of Chinese elderly reported "often sharing thoughts with their children or grandchildren" than "chatting with children/grandchildren." Similarly, females tended to be more likely to share thoughts with children (68.9% vs. 40.6%) than males. And such a percentage is also higher for rural than for urban elderly. With age increasing, the percentage of the elderly who shared thoughts with adult children or grandchildren also rises. For the next measure of intergenerational relations, the results show that, overall, 68.4% of the respondents claimed that they were taken care of by children/grandchildren when they were sick, Such percentages are higher for females than for males (80.6% vs. 53.6%) and higher for rural residents as compared to their urban counterparts (70.0% vs. 66.5%). Again, with age, the elderly are found to be more dependent on their adult children or grandchildren.

The above findings indicate that 1) Chinese elderly were more likely to receive financial support from their adult children than offering support. 2) Chinese elderly tended to receive more physical care and help from children/grandchildren than receiving emotional support from their adult children/grandchildren. 3) Subgroup differentials by age, residence and gender are obvious. Basically, males, urban residents and seniors aged 74 and younger reported better subjective well-being scores as compared to females, rural residents and elderly aged 75 and older. In terms of intergenerational relations, they are less likely to seek either financial or non-financial support from adult children/grandchildren as compared to their female, rural and older counterparts.

As to control variables, variations by age, gender and residence are also observed. As to the marital status of the respondents, males reported a much higher percentage of being married than females (57.3% vs.22.6%). The marital rate decreases substantially by age. A higher percentage of samples lived in rural than urban areas (52.7% vs. 47.3%). When it comes to the health status of the elderly, the average selfrated health (SRH) of the elderly is 3.3, meaning on average, the sampled Chinese elderly self-rated their health status as anywhere between "so-so" to "good." Males and urban seniors reported higher SRH scores than females and rural seniors. No significant age differentials are found when SRH condition is considered. There are higher percentages of females (31.5%) and rural residents (29.1%) reported having ADL disabilities. The percentage of elderly who reported having ADL decreases with age. The socioeconomic status of the subgroups differs considerably. The urban elderly reported an average household income prior to the survey year as 30,703 yuan RMB, which is the highest among all subgroups. In contrast, their rural counterparts only reported an average household income in the same year as 19,679 uuan RMB. As to educational attainments, males and urban residents claimed a greater number of years of schooling. Educational attainments decrease with age. Overall, 10.8% of the respondents reported having spouses die since the survey year of 2008. Females and rural elderly reported higher percentages of spouse's death. About 81% of the sample reported living with other family members in the survey year. After showing the differentiation among subgroups by age, gender and especially by urban and rural residence, the discussion now turns to the regression results of the analysis.

Regression results

The OLS regression coefficients on positive and negative well-being are presented in Tables 2 and 3 provide, respectively. After controlling for age, sex,

marital status, ethnicity, urban residence, ADL, household income, SRH, living arrangements and whether spouse died in the past three years, the financial exchange/support variables show significant effects on elderly's subjective wellbeing. Giving money to offspring only significantly improves positive feelings of males, urban and elderly aged 84 or younger. Providing financial support to adult children/grandchildren also significantly reduces the negative feeling index for males, rural elderly and elderly aged 84 and younger. Receiving money from children significantly increases positive feelings for females, urban seniors, and elderly aged 74 and younger. Receiving money also substantially decreases the negative feeling index for females, urban, and elderly aged 84 and younger. Main financial support coming from children/grandchildren does not show significant effect on positive feelings of the elderly. But it appears to increase the negative feeling index for males and urban seniors by 31% and 21%, respectively. These findings suggest obvious gender and residence differences when intergenerational financial support/exchange influences Chinese elderly's subjective well-being. Basically, receiving financial support from adult children improves females' and rural seniors' subjective wellbeing, whereas it hurts males' and urban residents' subjective well-being.

[Tables 2 and 3 about here]

Chatting with children/grandchildren significantly decreased positive feelings of the elderly among all subgroups. It increases negative feeling index for females, urban seniors and elderly aged 75 or above. These results seem to suggest that the more often the elderly chatted with their children, the less likely they reported positive feelings. This finding appears to be contradictory to our common sense. I will discuss my tentative explanations of this finding in the conclusion and discussion part. Sharing thoughts with children, on the other hand, significantly increases positive feelings of the elderly. But such an effect does not vary by age. Sharing thoughts with children/grandchildren also significantly reduces negative feeling index for most elderly subgroups. Such results reveal that sharing thoughts with children and chatting with children perhaps meant differently to the Chinese elderly. People often share thoughts with those whom they trust and feel close to. In this case, if the Chinese elderly were willing to share thoughts with their children/grandchildren, it implies a close intergenerational relationship. Thus, "sharing thoughts with children" might be a much better indicator of intergenerational relations than "chatted with children frequently." Being taken care of by children only significantly improves the rural elderly's positive feelings and reduces negative feelings of subgroup aged 75 to 84. Asking for help from adult children/grandchildren significantly decreases the rural elderly's positive feelings and increases their negative feelings.

Results from Tables 2 and 3 can be summarized as follows: 1) Giving money to offspring generally improves male seniors' psychological well-being and receiving money from adult children benefits female elderly's subjective well-being. 2) The non-financial form of intergenerational support from adult children can significantly improve rural seniors' positive feelings. But financial exchange/support is more likely to significantly increase urban elderly's positive feelings. 3) Similarly, elderly aged 74 and younger are likely to be influenced by financial exchange/support variables and non-financial intergenerational support plays a more significant role promoting positive feelings of seniors aged 75 and over.

Results for the control variables show that married, well-educated and urban elderly along with those who were economically doing well and rated their health

better, tended to have better well-being than those who were not married, minority, poorly—educated, rural elderly as well as those with lower economic status and ADL disabilities. Living alone hurts Chinese elderly's subjective well-being.

CONCLUSION AND DISCUSSION

The study has focused on investigating the age, gender and rural-urban differentials when intergenerational relations influence Chinese elderly's subjective well-being. Findings provide evidence that intergenerational support/exchange promotes the Chinese elderly's subjective well-being, which reinforces statements of previous research. New findings also emerge in this research through analyzing the 2011 wave of the CLHLS dataset.

First, Chinese elderly's subjective well-being is negatively associated with age. With age, Chinese seniors are more likely to report higher negative subjective wellbeing scores and lower positive subjective well-being scores. In addition, the research also highlights that age 75 seems to be a bench mark that differentiating the impact of certain forms of intergenerational support on elderly's subjective well-being. To illustrate, intergenerational financial support/exchange variables show significant effects on subjective well-being of elderly aged 74 and younger. But the non-financial support variables tend to significantly reduce the negative feelings and promote the positive feelings of those aged 75 and over. These findings mean that financial forms of intergenerational support tends to have a significant effect on subjective wellbeing of Chinese elderly aged 74 and younger, whereas non-financial forms of intergenerational support is likely to influence those are 75 and older. The results remind caregivers that seniors over 75 perhaps need more emotional and instrumental support than financial support from their adult children. This maybe because elder individuals suffer more from loneliness, depression, chronical diseases and other conditions than younger age groups. Thus, they are less likely to be psychologically healthy and they need more emotional support-as it is suggested by this research. Providing more non-financial, including emotional intergenerational support may be the key to promote their subjective well-being.

The second new finding relates to the rural-urban differences in the relationship of intergenerational support and elderly's subjective well-being. The results show that urban seniors tend to report better subjective well-being scores than rural elderly. This is perhaps because urban seniors enjoy better welfare and health care systems than their rural counterparts. In addition, in recent years, increased labor force migration of sons and their wives from rural to urban areas has caused more and more rural elderly to live independently and grandparents to become full-time providers of child care for their grandchildren. Skip-generation households have become common in rural areas.²⁴ This pattern may have a negative impact the rural elderly's subjective well-being. This finding draws policy makers' attention that rural elderly are in a more disadvantaged position both financially and psychologically. Future health care programs should lean towards rural elderly and perhaps offer special care programs that are only available to rural seniors. My research also finds that financial forms of intergenerational support/exchange have a more significant impact on improving urban seniors' psychological well-being; whereas the non-financial forms of intergenerational support from adult children have significantly positive effects on promoting rural elderly's subjective well-being. This finding reminds us to advocate providing more emotional support to rural elderly.

Third, I find significant gender differences when intergenerational relations affect the Chinese elderly's subjective well-being. The major gender differences lie in the way in which financial forms of intergenerational support affect elders' psychological well-being. Specifically, providing financial support boosts male seniors' subjective well-being whereas receiving financial support from adult children improves female elderly's subjective well-being. Such differences may be explained by gender roles in our society. Since males are generally considered as providers but females are viewed as receivers, offering financial support to adult children perhaps makes male seniors feel independent and a sense of power, which in turn benefits their psychological condition. In contrast, females who receive financial support from adult children may feel financially secure and being taken care by others, which also results in a positive effect on their psychological feelings. The gender differences may also result from the fact that males are generally doing much better in economic condition than females. Thus, I suggest policy makers to pay special attention to more disadvantaged groups: females, rural seniors and elders aged 75 and over.

Besides the major findings on age, residence and gender differences, the research has presents some interesting results that warrant discussion. For instance, the intergenerational support measure of "often chatting with children" shows different results from the other five measures. The particular measure appears to damage the elderly's subjective well-being. One explanation could be that perhaps the elderly who often chatted with children had very small social networks or supporting circle, which deteriorates their well-being. Chen and Chen (2012)'s²⁵ study showed that elderly engaging in various degrees of social interaction with others and the environment led to different levels of emotional dependence and perceived social support. Zhang's (2015)²⁶ research also showed that elders who had larger social networks had a lower likelihood of living with other family members. Those seniors who often chatted with children could be individuals with little communication and interaction with others besides their family members. As a result, they were likely to report worse subjective well-being. Thus, I argue that the negative impact of "talking to children/grandchildren" variable on the Chinese elderly's subjective well-being could be due to their relatively restricted social networks, which indeed has negative impact on elderly's subjective well-being. Of course the explanation remains as a hypothesis until it is formally tested.

The research has applied six measures of intergenerational relations and all six variables are found to have significant effects on either positive or negative feelings of some subgroup(s). This means that multiple forms of intergenerational support (financial, emotional, instrumental et al) need to be considered to explore factors that advocate healthy aging. Financial exchanges indeed can be reflected in many ways, including paying for housing loans, giving money for special occasions, running errands, sharing intergenerational housing et al.²⁷ Moreover, researchers have argued that studying intergenerational financial exchanges also requires considering both the form of exchange and the extent and purpose of exchanges.²⁸ Since the CLHLS did not aim to study intergenerational relations specifically, the future research may extend this current research by applying more measures of intergenerational relations and exchanges to explore intergenerational relations and the subjective well-being among subgroups of Chinese elderly.

In sum, the research shows that intergenerational relation measures could lead to very different psychological well-being outcomes for different subgroups. Thus, treating the elderly group as a whole is not appropriate when studying the Chinese elderly and perhaps elderly in other countries as well. The subgroup variations highlighted in this study remind policy makers and gerontology researchers to consider unique characteristics of elderly subgroups to promote their psychological well-being.

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Table 1. Descriptive Analysis of Independent and Control Variables for Elderly Aged 65 and Over: China, 2011-2012

		S	Sex		Residence		Age	
Variables	Total	Male	Female	Urban	Rural	65-74	75-84	85+
Subjective well-being variables (mean)								
1) Positive well-being	11.1	11.2	11.0	11.3	10.9	11.2	11.1	11.1
2) Negative well-being I	7.0	6.6	7.1	6.8	7.1	6.3	6.6	7.0
Intergenerational relation variables								
1) Main source of financial support from children	57.9	45.6	68.1	48.8	66.1	32.4	52.3	71.0
2) Receive money from children (mean)	2378.6	2377.2	2396.2	2559.0	2231.0	2453.0	2365.4	2374.1
3) Give money to children (mean)	584.7	795.0	413.2	876.3	316.5	934.0	706.7	393.8
4) Usually talk to children	45.0	30.6	56.9	44.1	45.7	19.3	33.5	61.3
5) Share thoughts with children	60.0	40.6	68.9	55.1	56.8	26.0	46.9	73.2
6) Taken care by children when sick	68.4	53.6	80.6	66.5	70.0	39.0	61.4	83.6
7) Ask help from children	70.0	59.1	79.1	68.1	71.7	44.9	64.1	83.7
Control variables								
1)Currently married(%)	61.8	57.3	22.6	38.4	38.2	74.0	52.0	17.3
2)Minority(%)	94.1	94.6	93.7	95.2	93.1	94.2	94.3	94.0
3)Sex(%)	45.0	-	-	45.9	44.3	55.3	51.3	37.6
4)Urban(%)	47.3	48.2	46.6	-	-	46.7	49.4	47.1
5)Age	86.0	83.3	88.1	85.8	86.2	-	-	-
6)Self-rated health	3.3	3.4	3.3	3.4	3.3	3.4	3.3	3.4
7)ADL disabilities (%)	26.4	20.3	31.5	24.0	29.1	31.7	31.5	10.2
8)Household income of last year	24,869	25,622	24,238	30,703	19,679	24,134	24,562	25,342
9)Education	2.3	3.9	1.0	2.9	1.8	4.2	2.5	1.4
10)If spouse died in past 3 years	10.8	9.4	11.8	10.5	11.0	7.4	10.5	12.1
11)Living with others	81.0	83.3	79.1	82.0	80.0	85.8	78.1	80.3

Source: CLHLS wave 2011. N=9,679

Table 2. OLS Regression on Chinese Elderly's Positive Well-Being: Chinese Aged 65 and Over, 2011-12

	All Sex		Residence		Age Group			
	M- 1-11	Male	Female	Urban	Rural	65-74	75-84	85 +
Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intergenerational Relation								
Variables 1) Main source of financial support from children	01	04	.01	10	.13	.07	.12	10
2) Give money to children	.21**	.26**	.13	.20*	.08	.36*	.26*	.06
3) Receive money from children	.17**	.01	.30**	.22**	.01	.46***	.16	.34
4) Usually talk to children	33***	32**	32***	32**	35**	25	40**	36***
5) Share thoughts with children	.38***	.40**	.38**	.21*	.57**	.21	.22	.52
6) Taken care by children when sick	.08	.08	.11	07	.23*	.03	.18	.11
7) Ask help from children	08	06	18	.63	23*	01	15	06
Control variables								
1)Currently married	.23**	.36**	.07	.25**	.19	.15	.36*	.10
2)Minority	24**	28*	22	.19	58***	48**	37*	09
3)Male	11*	-	-	13*	07	07	17	04
4)Urban	.14*	.19**	.10	-	-	.12	02	.25***
5)Age	.01*	.01	.01	.02***	01*	04	01	.01**
6) Household income	.13***	.12***	.14***	.13***	.12***	.10**	.16***	.12***
7) Education	.04***	.04***	.02	.04***	.02	.03*	.04**	.03**
8) Self-rated health	1.0***	1.0***	1.1***	1.0***	1.08***	1.0***	1.0***	.98***
9) ADL disabilities	09***	12***	08***	12***	13	33***	22***	06**
10)Spouse died, <=3 years	02	11	.04	.07	07	42*	.05	.06
11)Living with others	.02	.03	.02	.12	07	16	02	.06
Constant	6.18***	6.01***	6.34***	5.3***	7.39***	9.10***	7.47***	5.60***
N	4887	2290	2597	2754	2133	1051	1455	2381
Adjusted R2	.28	.27	.28	.28	.27	.28	.32	.26

Source: see Table 1. *<.1, **<.05, ***<.01.

Table 3. OLS Regression on Chinese Elderly's Negative Well-Being: Chinese Aged 65 and Over, 2011-12

	All	Sex		Residence		Age Group		
-	Nr. 1.14	Male	Female	Urban	Rural	65-74	75-84	85 +
Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intergenerational Relation								
<u>Variables</u>								
1) Main source of financial support from children	.10	.31***	10	.21**	05	.17	01	.11
2) Give money to children	21*	24**	16	16	68*	53**	47***	.21
3) Receive money from children	20*	.05	38***	23**	11	35**	21	14
4) Usually talk to children	.28***	.17	.33**	.36***	.21	.05	.55***	.26**
5) Share thoughts with children	40***	43**	39**	23	60***	.03	53***	46***
6) Taken care by children when sick	11	16**	11	04	17	.03	50***	.04
7) Ask help from children	.11	.06	.25	17	.44**	.14	.08	01
Control variables								
1)Currently married	50***	69***	33*	51***	48**	07	81***	42***
2)Minority	.28**	.35*	.26	12	.57***	.38	.60**	.12
3)Male	-	-	-	11	04	11	04	20**
4)Urban	14*	16*	14	-	-	01	13	20**
5)Age	.01	.01	.01	.01	.01	.03	.01	02***
6) Household income	11***	11***	10***	13***	07***	10***	08**	12***
7) Education	04***	04***	04**	03**	06***	05***	07***	01
8) Self-rated health	78***	67***	87***	71***	87***	58***	87***	78***
9) ADL disabilities	.19***	.21***	.18***	.18***	.21***	.41***	.22***	.18***
10)Spouse died, <=3 years	.12***	.15	.10	.19	.01	.49*	.07	.02
11)Living with others	32	35**	30*	50***	12	14	63***	14
Constant	10.49***	9.71***	10.84***	10.41***	10.83***	7.51***	11.07***	12.40***
N	4971	2340	2631	2784	2187	1072	1483	2416
Adjusted R2	.19	.18	.19	.19	.20	.17	.24	.17

Source: see Table 1. *<.1, **<.05, ***<.01.

Appendix.	Scale Items	and Alpha	Coefficients
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Variables	Individual Items	Alpha Values
Positive feelings	Q1: How do you rate your life at present?	0.51
	Q2: Do you always look on the bright side of things? Q3: Do you feel happy as younger?	
Negative feelings	Q4: Do you feel fearful or anxious? Q5: Do you feel lonely and isolated? Q6: Do you feel useless as age?	0.63

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