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REFLECTION IN GLOBAL HEALTH

AN ANTHOLOGY

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FOREWORD by
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Reflection essay authors were instructed to use pseudonyms for all patients and for select institutions.

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Foreword

By *Louise Aronson*

The two words that summarize the topic – the occasion – of this anthology, “global” and “health,” encompass an enormity of human experience: the entire planet on the one hand, and much of its well-being on the other. Put them together and you have a vast and complex enterprise of unquestionable import, difficulty, and variety. Add education to the mix and you get a window into the world today and also into the future, as the owners of the voices herein move into their careers as health professionals equipped with the aspirations, skills, and insights to make a difference.

The writings in this anthology of reflection on global health experiences reveal undergraduate students, health science trainees, and young doctors confronting both illness and injustice in health systems around the globe and their own expectations, ideals, biases, limitations, and ambitions. Each piece meets the call for reflection by demonstrating deliberate contemplation of a global health experience. Many countries and parts of the planet are represented, as are a plethora of medical conditions and specialties. An occasional essay also confronts what might be termed global health at home, as the writer considers the migrations and health tribulations of her own or another immigrant family in the United States. All strive to understand some part of their lives in a larger context and to link that experience to critical issues in health care around the world. As such, each offers insights into the realities, joys, challenges, and key questions facing global health.

Using reflective writing to demonstrate and evaluate learning is a relatively new addition to the medical education toolbox. Yet in recent years, reflection has become one of the hot topics in medical education, mandated by governing bodies including the LCME and ACGME, and applied to areas from professionalism to quality and safety to surgery. Search any of the key journals and in most issues you’ll find at least one article on reflection. This was not the case five or ten years ago, though not because physicians then had no need for reflection. Rather, as the world has become more complex and communication has increased generally and across disciplines, medicine has begun to

recognize that its traditional modes of learning and evaluation are necessary but not sufficient to train and assess the performance of medical students and physicians. A good doctor is more than a repository of knowledge. He or she is also an amalgam of essential attitudes, behaviors, and skills. Moreover, to achieve and maintain proficiency in both the art and science of medicine, a doctor must be able to learn from experience, ask important questions, and consider the origins and implications of his or her own thought processes, decisions, and behaviors. In other words, a good doctor must be skilled in reflection.

This sounds more straightforward than it is. The term reflection often is used both colloquially and in medicine to indicate thoughtful consideration of or meditation on an experience, idea, or problem. This definition is accurate but vague. As a result, the exercises and products that count as reflective in medical education vary widely in their intent, approach, and criteria for success. Being thoughtful is good, even necessary, but it isn't always sufficient to guarantee learning from an experience. Simply put, sometimes we try our best and think as carefully as we can, and it is often not enough. Sometimes we need outside input to really see something as it is, or to see it differently, and to learn from it. While this may be particularly true for trainees who lack the knowledge or experience to appreciate the intricacies of new-to-them medical culture, it is equally true for seasoned professionals who find themselves in situations that are surprising, unsettling, complex, or uncertain, or for which they didn't have the necessary knowledge or skills. For this reason, educators often distinguish between reflection and a higher-order skill called critical reflection that moves beyond thoughtfulness to learning that includes a transformed perspective.

As with most – perhaps all – skills, reflection comes more naturally to some than others. However, it is a skill and as such can be learned and must be practiced to achieve competence and proficiency. Indeed, key scholars in the area have developed a hierarchy of levels of reflection, from *habitual action*, which occurs with little thought, to *understanding*, which is mostly theoretical with few links to personal or real-life experience, to *reflection*, in which experiences and concepts are linked and explored, and finally to *critical reflection*, which includes confrontation of assumptions and assimilation of alternate perspectives to produce new viewpoints, attitudes and behaviors. Novice reflectors generally reflect at one of the first three levels in a somewhat bell-shaped distribution. Training, feedback, and guidance are required to move them along the continuum to reflection and critical reflection.

While many types of reflection prove useful to trainees and educators, the key to making a reflection useful is to be clear and explicit about its goals. With this anthology, for example, the goal was to have learners consider their experiences and create a compilation so others could get a sense of where they had been, what they learned, and how they were thinking about that experience. In that case, a general prompt for reflection on a topic such as “your global health experience” usually suffices, as this

diverse collection so eloquently illustrates. But sometimes the goal is different. In order to generate and evaluate learning in areas where traditional knowledge tests or clinical supervision aren't adequate – and to produce fully reflective health professionals with the skill to learn from experience after formal training – we must apply techniques that help learners become critical reflectors.

Studies within and outside medical education have shown that a structured approach yields higher-level reflections than simply asking learners to reflect. This isn't surprising: teach the learner a skill, and he or she will be more adept at that skill. Multiple structured approaches to reflection have been published, and while they vary in focus and approach, all offer a series of questions or tasks aimed at getting the reflector to think deeply and differently about an experience. At UCSF, we have developed one such tool called "the UCSF LEaP," a 5-step approach for "Learning from your Experiences as a Professional." First, the reflector must pick a suitable experience, generally a situation that remains unresolved (i.e. clearly significant but from which learning has not yet taken place). Second, they describe the experience in a way that allows others to develop their own impressions and so provide feedback that leads to new perspectives. This entails offering details about events, thoughts, and emotions at the time followed by a consolidation of their current thinking about the situation. In essence, this is 'reflection;' the subsequent steps transform it into 'critical reflection.' The third step is getting feedback or finding information that increases knowledge, questions assumptions, and offers alternate interpretations of events. In the fourth step, they identify a learning issue (often there are multiple) and discuss their transformed thinking about this issue. In the final step, they make a SMART (specific, measurable, attainable, related, and timely) plan for future professional behavior.

As is perhaps obvious, critical reflection is a tall order and not suitable for all situations. It might come down to this: do you want reflectors to process an experience, to think about it, and note their own impressions based on it? Or do you want them to move to a new place they might not be able to get to on their own? The former is 'reflection' and the latter is 'critical reflection.' Both have utility. My own belief is that we should reflect on all notable experiences, and critically reflect when we come up short or simply cannot understand or feel resolved about an experience. As we can see in these pages, global health experiences are always notable and sometimes they also might benefit from a deeper dive that results in a clear plan forward through complex and challenging situations without simple or singular answers. So what might optimal application of reflection look like for global health and trainees learning from international experiences? Perhaps they could *reflect* to help identify the important questions for the individual, the programs they participate in, and the field, and *critically reflect* to help them begin to answer those key questions.

Introduction

“Something is better than nothing.” “They have so little but they’re so happy.” “Haiti was *great*.” “Change the life of just one person and it’s all worthwhile.” “All you need is love.” “Be the change you want to see in the world.” These commonly heard phrases, true to varying degrees, are sound bites that may be heard after experiences in global health. While this array of sentiment minimizes the value extracted from experiences in global health and relegates these experiences to a certain realm of superficiality, it is amazing how quickly or easily this type of phrase rolls off the tongue of even the most veteran global health practitioner. These expressions can be protective in nature, arising out of a sense of vulnerability and inability to express fully the significance of the experience, or are representative of a lack of clarity around what content and depth is being requested of the learner or practitioner. These expressions, if they were to stand alone, would be representative of an incomplete or underdeveloped understanding and articulation of reflection.

Oftentimes, however, this type of one-liner is rooted in good intentions and serves simply to test the waters of the audience. These statements are not necessarily false, but instead, they seek permission of the listener while also allowing the learner to gauge where to begin and how deep to go. These expressions are the tip of the iceberg, so to speak, as the learner or practitioner simultaneously sorts through experiences and assesses the context in order to represent a broad range of reactions, feelings, and thoughts on a complex set of experiences in a prioritized and appropriate manner. It seems to be a somewhat common occurrence that individuals return from experiences in global health to discover that when someone asks about their experience, they expect a simple and quick response. The result of this dynamic is the development of these cliché one-liners, which try to capture one small sliver of the importance and impact of the experience. Encouraging the practice of reflection in global health serves to address human experiential complexity in a systematic and genuine fashion.

In the body of this anthology, you will find 63 essays that explore an array of topics in depth through systematic, reflective approaches to experiences in global health. An anthology on reflection in global health benefits significantly from a brief introduction to

some basic definitions of “reflection” and “global health,” as well as a general overview of one methodology of maximizing the benefits and minimizing the obstacles of reflection in global health training for students and educators. Finally, the introduction will conclude with a few words of suggestion around how to utilize this anthology in conjunction with trainee experiences in global health.

This anthology aims to convey the profound impact of experiential education in global health, particularly through the reflection pieces offered by undergraduate and graduate participants in a variety of fields and projects. For this particular project, reflections are tangible, written pieces composed after participation in a global health training experience and do not directly refer to oral reflections, individually or as a group, on the ground or upon return. As educators in global health, we believe all forms of reflection play a central role in the incorporation of experience into the lives of the participants. Reflection encourages participants to grapple with the multifactorial nature of global health and to grant meaning to these experiences personally, professionally, and systemically. What one person experiences in one isolated interaction often resonates with others who have had similar experiences and gives rise to a conversation about topics ranging from personal engagement to justice to social responsibility and often, to humility, helplessness, and inequality. These written reflections report on experience and present the opportunity to share with others, as well as to take the next steps in global engagement through feedback, mentorship, and the pursuit of further involvement in global health.

Holding reflection as a central tenet of global health, a number of educators approached the Consortium of Universities for Global Health (CUGH) in 2012 and proposed the value of convening an essay contest for trainees in the various fields of global health. The call for essays was issued:

“Over the years, students, trainees and faculty have reflected in creative ways on their travel, learning, and work experiences. Through writing, sharing, listening, and storytelling, we can begin to derive clarity about the injustice we witness, embrace the complexities of the lives we touch, decipher the ambiguity of moral judgment in widely divergent cultural contexts, and imagine constructive action in response to our experiences. All current undergraduate, graduate and postgraduate trainees are invited to submit reflective essays in response to global health experiences. These may be in a research, educational, clinical, or service capacity. Please highlight the impact of your experience on professional development, personal growth, or new insights you have gained into cross-cultural or ethical issues.”

The reflection prompt left ample space for interpretation and creativity, defining only the topic for reflection: experiences in global health. Reflections pertain to trainee involvement in research, educational, clinical, or service capacity. Within these flexible parameters, reflections offered are not simply narratives, nor are they purely structural or systematic analyses, though both of these elements are incorporated. Instead, these elements are brought to bear on one's own understanding of the world, with one's interpretive framework, merging past, present, and future in the process of meaning making. But first, *Why?* Why is reflection integral to global health training? *So what?* Before answering the *why* or the *so what*, let's explore the *what* – what is reflection?

Reflection in Global Health: Value Added

While there are many different iterations of reflection, this anthology refers to reflection that is particular to personal experience. Furthermore, this reflection draws upon experiences within training in global health at various levels: undergraduate, graduate, and postgraduate. Global health, in this context, refers to immersion within, or being completely surrounded by and engaged in, cultures and contexts outside of that of the trainee, primarily within underserved, under resourced, isolated, or excluded populations. CUGH defines global health as “improving the economic, social, and environmental conditions people live in, and eliminating avoidable disease, disability and death.”¹ While global health experiences frequently occur outside one's country of origin, the operational definition of global health utilized is not synonymous with international health. Most frequently, these experiences pertain to encounters through which students experience contrasting health systems or cultural nuances in health access in economically scarce environments. Reflection in this context, then, surfaces a range of independent and overlapping themes presented through various student experiences both close to home and internationally.

What is the value of including reflection in global health experiences? First, when a participant knows that reflection on his or her experience is an expectation, the participant may approach global health more intentionally and thoughtfully. In an ideal scenario, the participant engages in a more contemplative manner; observations are more active than passive. For the astute observer, reflection is multifactorial and is inclusive of all five senses. Everything from one's own perception and biases, to the sights, smells, and sounds, enter into the experience. From the body language of others to one's own body language, the participant is acutely aware of the variations and nuance of the encounter. The participant notices the systems in place, accounts of justice and injustice, both in one's current location, as well as previous experiences, presenting elements that are both

concordant and discordant with prior experiences. Power dynamics are observed and questioned, or the absence of a power dynamic becomes apparent. But *why*? What value does this heightened sense of presence add to an experience or, conversely, how does this heightened sense of observation and analysis *detract* from the experience?

In addition to a heightened sense of presence in and engagement with global health, reflection urges participants to further explore the notion of *extracting meaning from experience*. Experience serves as the gateway to meaning. Someone may learn or believe something to be true, but if that belief is not verified through experience, or if that experience is somehow contradicted, beliefs adjust accordingly because experience has dictated a new dimension of reality. Experiences that prompt reflection range from subtle to quite dramatic. Reflection holds a deeply personal component. Expectations regarding reflection on experience may be expanded or adjusted to include targeted learning objectives, or to highlight desired course concepts, but generally speaking the starting point for reflection, the content without which learning objectives and course objectives would be irrelevant, is first-hand, personal experience. Experience can challenge us to the fiber of our being. It can inspire enduring change in even the most deeply engrained beliefs or practices. We see that, for better or for worse, the world is not always the way we believe it to be or have thus far experienced it to be. Going deeper, asking *why* and offering one's hypotheses and observations is how we attempt to draw meaning from or make sense of the distance between reality and the ideal, or the necessary coexistence of the two.

One approach to reflection can be conceptualized by thinking in terms of one's interpretive framework, or the structure of one's values and beliefs formed by life experiences thus far, against which all experiences are tested. Dutch theologian Edward Schillebeeckx captures the two simultaneously present dimensions of reflection through the use of the term *dauerreflexion* through which new experience is critiqued by one's interpretive framework, while also given the latitude to serve as a critique of that very same framework.² *Dauerreflexion* literally means "constant reflection," and the most immediate, tangible fruit of *dauerreflexion* is the ability to extract and define meaning by way of experience in a dually functional fashion. Based on one's interpretive framework, an experience is either accepted as consistent with the values and beliefs that were present in that interpretive framework, or the experience is rejected because it is inconsistent with the framework. Determining whether an experience fits within one's interpretive framework is complex; it is often not a simple yes or no.

Furthermore, *dauerreflexion* serves as the point at which a new experience comes to bear on one's very interpretive framework, testing its validity and applicability, either universally or particularly to the given situation. There are moments when the discordance between values and beliefs represented through one's interpretive framework

causes the individual to readjust her interpretive framework. Inconsistencies cause values and beliefs to be altered, purged, or built anew. At times this change occurs at the cognitive level and inspires subtle behavioral change, scarcely detectably by even the closest of friends. Similarly, even in the presence of significant change to one's worldview, consequent behavior change sometimes appears minimal to the outside observer. Occasionally, reflection on one's experience is so dramatic, so altering to one's interpretive framework, that significant, immediate, and lasting change to one's very framework results. Transformation has occurred. The transformed individual had engaged fully with heart and mind, embracing an openness to shift values and beliefs and, on some level, to admit incomplete or inaccurate beliefs.

Finally, incorporating reflection into global health requires a desire for complete and total *personal and cultural humility*. Participants who are asked to reflect can be guided to observe and not to judge, to enter this new experience to learn and not to teach, and to maintain a decided openness to the perspectives of "the other," both individual and cultural. The multifactorial nature of nearly every situation introduces a *certain relativity*. This relativity is not an "anything goes" type of relativity. But instead, the relativity that is encouraged through reflection in global health is a realistic relativity that is not conclusive but is exhortative. The relativity encountered exhorts the trainee to delve deeper into the reality encountered, into the factors influencing experiences that the trainee has never before experienced, or practices that the trainee had previously believed to be unsound or even immoral. The expectation of reflection in global health encourages participants to venture beyond the *fact* to explore the *cause*, beyond the *reality* to encounter the *ideal*. The personal and cultural humility inspired by reflection in global health is not meant to be passive or immobilizing. Instead, this humility serves as the basis of further discovery and of responsible engagement in the global arena.

In the foreword of this anthology, Louise Aronson shares the structured approach utilized at the University of California San Francisco by way of offering a pathway through which meaning can be optimally extracted from a new experience in one's journey from reflection to critical reflection. The five-step LEaP (Learning from your Experiences as a Professional) approach encourages learners to delve deeper into experiences in the setting of medical education. This structure is paramount in extracting meaning from experience and mapping a "clear plan forward through complex and challenging situations without simple or singular answers."³ Critical reflection in global health does not necessarily provide answers, but the value of critical reflection in these moments may provide the courage and determination to move forward by way of the newly evaluated framework of meaning, or through rebuilding the thoroughly deconstructed framework now in need of restructuring and rebuilding. A path is determined, even if existing only for a moment before further modifications are enacted, and a newly transformed

individual embraces a more firmly rooted and deeply inspired manner of embarking on this utterly rich, and quite often difficult journey, deeply influenced by the process of and guideposts placed through engaging in critical reflection.

Challenges of Reflection in Global Health: Value Questioned

Reflection, while extremely valuable, is not without its obstacles. When engaging in reflection or when utilizing reflection in educational settings, there are many potential challenges to consider. The inexperienced or untrained author may be tempted to write specifically to fulfill the expectations of the exercise and lack their own personal touch or depth. Similarly, the authors may write to what they believe the reviewer would want them to think or feel, or how they should react. There may be the temptation to exaggerate or embellish, to underemphasize or exclude. This temptation is particularly strong if a reflection is associated with a graded course or activity wherein the author may fear that certain points of view could mar the evaluator's grading or, more personally, the evaluator's opinion of the author. Another possibility is that the author has not yet come to terms with his or her own opinion, or is aware that their opinion or belief is not as commonly held or as politically correct as desired and hesitates to express herself fully. Information is withheld in these instances, leaving a recognizable hole in the logic and drawing incomplete or inaccurate conclusions.

Confusion around the structure of the composition or the expected components of a reflection can jeopardize the overall value of reflection for both the author as the innate value of the exercise. Reflection can be confused with narrative, which results in an often beautiful and descriptive piece detailing a typical day, or creating an elaborate and precise scene for the reader instead of delving more analytically into the experience. A related challenge that surfaces in reflection is insufficient guidance and or vague prompts. Clear expectations of the reflective exercise provides a basic rubric for the composition of the reflection, at the least, and serves as a reflection prompt into robust reflection at fullest capacity. Even though the learner's writing and storytelling skills might play a small part in the essay contest, they generally do not influence the assessment of reflective ability (Aronson, 2010).⁴ A structured process or guide to reflection helps improve reflective ability but raises questions about best practices around providing feedback on reflection.

A framework by which evaluators offer systematic feedback to trainees could promote and develop a more in-depth reflective process.⁵ Providing students with objective feedback, or how well a student has completed the reflection process given the outlined prompts and stated objectives removes an element of subjectivity from the process. Evaluators offer feedback on the *structure* of the student's reflection instead of solely

commenting on the *content* of the reflection. The concept of providing directed feedback on the structure of reflective exercises helps transition the concept of reflection to the more directed exercise of critical reflection, or “the process of analyzing, reconsidering and questioning experiences and of making an assessment of what is being reflected upon for the purposes of learning,” as defined by Louise Aronson.⁶ Structured feedback necessitates training of evaluators on desired components for reflections, as well as style of feedback to be offered, and would require protected faculty time in many institutional settings where training occurs. Most importantly, a supportive and safe environment must be created in order for participants to be honest and open in their reflections, knowing that they will be met by their supervisor or mentor wherever they are in their journey and accompanied to the next steps as they are ready and able.

To add yet another layer to an already complex process, reflection on human interaction in any culture or situation, even one’s own culture, is susceptible to projection or misinterpretation. The way the observer understands the reality of a specific scenario may deviate quite significantly from the reality of the situation. Many factors contribute the misinterpretation of a situation. We can see what we expect to see, or we are not fully conversant in the culture or language of the encounter and therefore misinterpret or oversimplify (or make more complex) an interaction or situation. We do not have to go abroad to have this experience; it happens to us in our own cities and countries. In the context of new experiences, reflection can provide a structure for allowing these experiences to serve a role that lies in the ambiguous ground between simple observation and lasting judgment.

One final confounding factor is that reflection brings the notion of privilege to the forefront. In global health, experience-based reflection stems from the very experience of removing oneself from one’s own day to day life in order to enter into the reality of another. This is a *privilege*. Global health participants may bemoan the expense, or increased debt loads, or the need to take vacation days for experiences that are not vacation, as defined by traditional standards, but the reality is that anyone who is able to participate in experiences in global health enjoys a certain level of privilege. It is a place of privilege, indeed, to come from a world where vacations, breaks, and daily routines are enjoyed without significant ramifications to one’s livelihood, without survival hinging on a lifestyle that is subsistence-based; to live this reality is a privilege. Remembering this privilege while engaging in experiences that are well-intentioned fosters a healthy sense of humility. Failure to remain humble in the experience one enters as a foreigner, as the other, can lead to being (perceived as) paternalistic. The “us/them” dynamic that innocently flows from the mouths of many upon exposure to underserved or under resourced communities can unintentionally reinforce negative power dynamics. Short-term medical trips can undermine the local health infrastructure as patients want to see

the pre-clinical American “doctors,” albeit supervised by attending physicians, instead of a local practitioner (to whom the visiting practitioners must ultimately defer). This challenge does not necessarily warrant the discontinuation of this type of experience, but instead, there is significant nuance to these experiences that needs to be considered carefully. Approaching these situations with deep and intentional humility, literally imagining the many factors that could negatively form the experience in some way and working to avoid or minimize negative effects, is worth all of the time and effort to neutralize crippling side effects of well-meaning experiences. There exists an ethical obligation to reflect thoroughly on scenarios created through global health experiences in order to move participants from observation to analysis, and perhaps ultimately to action. While this process takes many years, much experience, and significant guidance to engage maximally, everyone engaging in global health experiences starts somewhere. Observations are central to experience, and the structure of reflection invites participants to go beyond the *what* to the *why*. To enter into the reality of another, to contemplate root causes of difference, of injustice, and to allow oneself potentially to be transformed—which seems to be the most humble, most sincere form of lessening the power dynamic and the privilege that allows participants to witness realities distinct from their own. The belief that, when engaged responsibly, experiences in global health hold the capacity to build solidarity and serve as the foundation for positive change in the world that motivates participants and educators alike to incorporate structured reflection into global health.

Varying Educational Approaches to Reflection: Value Channeled

Reflection is a learned process. Individuals have varying skill levels when it comes to reflection, both in terms of the process required by reflection and the manner in which a reflection is composed. One value of incorporating reflection in a longitudinal manner, when possible, is observing students grow in their ability to reflect, as well as develop personally and professionally. Reflection is truly a life-long skill. One common characteristic of the essays in this anthology is that each reflection explored three necessary components of reflection: description, dialogue, and formation/transformation.

The descriptive elements set the scene for the reflection. This section often includes background information, key contextual elements and details, sensory observations, preliminary thoughts and emotions, and describes the interactions between the involved parties and their assumed roles in the scenario, perhaps even including that of the author.

The dialogue component details the interaction between the observed scenario or setting with the author’s interpretive framework. While the attraction to a particular

scenario might be initially presented in descriptive detail, the underlying depth to the reflection develops in the dialogue component. *How did the experience resonate with the author's interpretive framework and/or how was the experience discordant?* The author's core beliefs and value surface in this dialogue, incorporating all dimensions of temporality as well as various ideologies or disciplines.

Finally, a reflection involves formative or transformative elements. The formative component of a reflection involves action or change. New insight requires a new course of action, a new way of thinking, a broadened perspective. Alternatively, the formative component could serve to validate the author's current interpretive framework. In this case, the author comments on why this is the case and elaborates on the significance of her discovery. Beliefs or practices may become more deeply engrained. It is also possible for an experience to both resonate with and be discordant from one's interpretive framework. An example is when we receive confirmation on the way the world is, but we hope for more. We see the reality, but we hold out hope for the ideal, or at least more desirable conditions, and believe these more desirable conditions to be attainable. Reflections that are missing any of those elements either represent incomplete contemplation of an experience or the inability to express the fullness of the experience through reflective methods. This complexity reiterates that reflection is a learned process and requires targeted guidance.

Composition of the Anthology: Value explored

For the 2013 essay contest, 118 essays were received. Of the essays, 87 were submitted by trainees in Global Health at the graduate level and 31 essays were submitted by undergraduate trainees. There were 12 reviewers from 7 institutions in the United States. Essays were double reviewed, blindly, scoring essays from 0-10 in four areas: Originality, Style/Composition, Critical Reflection, and Impact on the reader. The top 45 essays were reviewed and ranked by the Essay Oversight Committee in order to select the winning graduate and undergraduate essays, as well as to identify 6 additional essays to be read at the Conference. Finalists and winning essays were invited to be published in the Anthology. The essays scoring in the top 50% by reviewers were selected for inclusion in the Anthology. 54 essayists were contacted and 37 accepted the invitation to publish their essays in the Anthology.

The 2014 call for essays received 166 essays. Of the essays, 142 essays were submitted by trainees in global health at the graduate level and 24 essays were submitted by undergraduate trainees. While the majority of the authors were from the United States, 10% of the essays were received from other countries. There were 22 reviewers in

total, 18 faculty and 4 students, from institutions in the United States. Essays were reviewed and scored according to the same criteria listed above. The top 21 essays were reviewed and ranked by the Essay Oversight Committee in order to select a winning graduate and undergraduate essay, as well as to identify 6 additional essays to be read at the Conference. Finalists and winning essays were invited to publish their essays in the Anthology. During the initial review process, reviewers indicated whether the essay should be included in the Anthology, should be considered for the Anthology, or should not be included in the Anthology. The editors reviewed those essays which were recommended for inclusion and consideration. The 2013 and 2014 editors selected the final essays for inclusion through a collaborative multi-step process. Each of the essays was personally reviewed by one of the co-editors, and then discussed over Skype for definite inclusion or potential inclusion. After thorough review of the invited essays, 63 entries were confirmed for inclusion in the first anthology. Those selected were edited, resubmitted to the author for approval, and included following receipt of final authorization. Special attention was paid to preserving the author's content, thoughts, and voice.

In keeping with a commitment to mentorship and highlighting of trainee capabilities, a team of five trainee co-editors (two for 2013 and three for 2014) were selected to collaborate with essay authors to refine their pieces. Ishan Asokan and Shawn Wen were the co-editors for the 2013 essays. Ishan is currently pursuing his medical degree at Vanderbilt University School of Medicine and received his M.Sc. in Global Health Science from the University of Oxford, while Shawn is conducting research at the Malaria Elimination Initiative within University of California San Francisco's Global Health Group. With direction and support from the faculty editors, Ishan and Shawn put forth a successful grant to the Arnold P. Gold Foundation for Humanism in Medicine to fund the publication and ensure its open-access status so that it could reach its wide intended audience.

The co-editors for the 2014 essays were Ambar Mehta, Kathleen Miller and Carmelle Tsai. Ambar is currently a medical student at Johns Hopkins University School of Medicine. Kathleen graduated from the University of Iowa Carver College of Medicine and is currently a pediatric resident at the University of Wisconsin. Carmelle graduated from Baylor College of Medicine and is currently a pediatric resident at University of Texas Southwestern Medical Center and Children's Medical Center of Dallas.

There is something very special about this first round of essays. There was no precedent. The reflections submitted possessed their own style and personal content. No previous anthology dictated any standard, either actual or perceived. No previous finalist or winning essays influenced the style or content of the submissions. In this regard, this anthology, this initial group of essays, is unique indeed. The essays received

were of extremely high caliber. Authors grappled with very real, pervasive topics that prove central to engagement in global health time and time again. Trainees encountered systemic injustices and the impact different belief systems have on health decisions and outcomes. The notion of global citizenship became real in a new way for participants as the many faces of global injustice surfaced, inviting participants to embrace the responsibility of reducing the global burden of disease. Trainees defined and redefined cultural humility, attempting to see their global citizenship and its consequent, enveloping interconnectedness through a new lens. Personal and professional growth blossomed as hopes and dreams of solidarity took root. In the midst of discouragement and doubt, surrounded by other-ness and despair, lessons learned and experiences garnered grounded these authors in their development of global realities and perspective. Love. Laughter. Struggle. Confusion. Bewilderment. Empowerment. Inspiration. Compassion. Empathy. Discouragement. Transformation. Solidarity. And more.

Utilizing this Anthology in Global Health Education: Value extended

The hope for this collection of expertly crafted, deeply personal, globally-situated essays is that they will affirm, inspire, and challenge the reader and, on a personal level, these essays can serve those engaged in global health experiences as a way by which to explore the world through a variety of perspectives offered, moments shared, and questions raised. It is a privilege to have the opportunity to walk alongside another, even once- or twice- removed. The authors of these essays have graciously shared of themselves and their experiences to invite the reader to join their world, if only for a moment.

For seasoned global health practitioners, some essays will *affirm* the reader, as similar experiences resonate with past experiences. Similar situations may have been experienced, similar conclusions may have been drawn from those moments.

The reader may also feel *challenged*. New perspectives on similar experiences may be demanded. Experiences offered through these reflections may draw the reader anew into conversation with her interpretive framework, to revisit conclusions drawn. Other essays may present the reader with entirely new, previously inconceivable or unexplored feelings and emotion. The reader may reevaluate the values and beliefs held in his or her interpretive framework. Reactions may range from personal consideration to systematic evaluation and discourse.

The reader may be *inspired* through this anthology to continue to work in global health, to partner globally for positive change through many related any overlapping factors: reduction of health disparities, increased health equity, mitigation of injustice, solidarity, perseverance. There is always more to learn, shared experiences to be witnessed, the

fullness of humanity to be shared—in laughter and in tears, through success and through struggle.

In an educational setting which includes an experiential component, these reflections can serve as a helpful tool at various points throughout the trajectory of the experience. These reflections may be used to *prepare* students for experiences in global health, introducing the concept and structure of reflection, as well as demonstrate the range of experiences and emotions. This anthology can be utilized *during* an experience in global health, providing select texts to encourage the trainee to delve deeper into the experiences of another to find companionship and to offer a variety of templates for reflection in the process of extracting meaning from his or her current experience. Essays from the anthology may serve as a fruitful prompt *after* experiences in global health by way of encouraging trainees to compose a reflection in a similar fashion. Similarly inviting students to select essays that resonate with their own experiences may help students identify within themselves, as well as for their fellow classmates, similar experiences, emotions, or meaning drawn from their own experience in a context of conversation or debriefing.

This anthology may be used outside the specific parameters of experiential education to reiterate concepts emphasized through coursework in global health or in related fields. The complex and interdisciplinary nature of global health practitioners invites a plurality of voices, experiences, and intertwined, often interdependent, influential factors. Essays from this anthology may complement a variety of themes presented inside and outside the classroom. In discussion around compassion and commitment to solidarity, these essays provide ample insights and a variety of perspectives for discussion.

And, finally, we welcome your feedback on how you have utilized the essays included in this anthology to fortify, incorporate, and advance the practice of reflection in global health.

Shades Off

By Nauzley Abedini

I recently completed a yearlong research fellowship in Kumasi, Ghana. Looking back, the research question was only a small impetus for embarking on the fellowship. A more salient motivating factor was the opportunity to live and work in an under-resourced setting and learn firsthand about the challenges underlying healthcare delivery and research study implementation. Most importantly, I hoped that by committing to live elsewhere for an extended period of time, I would avoid the ethically ambiguous ‘medical tourism’ we so frequently hear about and condemn in global health academia. I wanted to establish legitimacy as an advocate and partner by building strong ties with community members through immersion. With time, I hoped my foreignness would erode away, and I would become part of the fabric of the community—accepted, familiar, and comfortable. Additionally, the prospect of learning about Ghanaian culture and making lifelong Ghanaian friends excited me immeasurably.

My enthusiasm dissuaded me from giving significant thought to the potential obstacles I would face. My longest previous experience in a developing country had been approximately two weeks; I didn’t know how I would handle being on my own in a foreign country for so long, especially one in which the routine comforts of home, like water and electricity, were sporadically available. Second, I was working with people in Ghana whom I had never met. I had no idea whether we could collaborate on a research project for an entire year and simply, if we would even get along.

Things were certainly tolerable at the beginning. The random water shortages and power outages were new adventures. The frequent physical prodding by market sellers as I dodged goats and taxis in the bustling Kejetia Market (home to 10,000 traders and the largest market in West Africa) paired with the incessant cries of, “Hey, foreigner, come buy my things!” were survivable, even avoidable, if I planned my days properly. The swarming crowds and polluted downtown could be tolerated in small doses.

But slowly, these events started to take a toll on me. I would retreat to my tiny apartment and feel a physical and mental exhaustion unlike anything I had experienced

before. I grew wary of the constant sensory overload and the frequent reminders of my foreign-ness. It soon became apparent that I would never be seen as a co-inhabitant of Ghana no matter how much time passed nor how much I tried. As this reality set in, I escaped to the only place with familiar terrain—myself. I became more reserved. I closed myself off from new experiences to conserve or, more accurately, preserve my mental well-being.

I slowly became disillusioned. My original, albeit lofty, goal of making lifelong Ghanaian friends was progressively dispelled as I found that the cultural differences were sometimes insurmountable. Making friends became even more difficult once I started shuddering away from new experiences and attractions. My time in Ghana soon became an individualistic endeavor to survive. Work was the only thing I knew how to do well, and for a time, it was a sufficient distraction from the painful realization that I would never fit in. Slowly, my priorities began to shift. I became entirely task-driven. I lost sight of those intangible things that would have brought balance and richness to my experience.

It wasn't until I neared my three-month anniversary in Ghana that I truly came to terms with what was happening. Some issues came up with my research that made my project come to a temporary standstill. The crutch of work that I had devised for myself was suddenly knocked out from under me, and the stress caused by things that I had previously been avoiding or barely tolerating became amplified. I was suddenly acutely aware of how out of place and lonely I was. I started questioning why I was even in Ghana in the first place—I wasn't doing anything to help anyone directly. I was only thinking of myself.

Interestingly, during this time, I had started wearing my sunglasses a lot. At first it was out of pure necessity because of the blinding sunlight. Then I realized my shades could offer a sense of protection, hiding my eyes from the market sellers who incessantly vied for my attention. I even took to wearing my sunglasses in the medical student hostel where I lived. Soon I was wearing them all the time, even when it wasn't particularly sunny outside, and even when I wasn't going to the market. I didn't realize that my shades had become a barrier: a physical marker of my mental and emotional self-closure to interactions with people in the local community, the same people whom I sought to help through research, as well as the medical students with whom I lived, who could be potential friends in the short-term and potential colleagues in the long-term. I was isolating myself, and I was closing myself to the most influential and powerful experiences of living abroad: interacting with and learning from people who are different from myself.

Prioritizing work and seeking isolation are very Western practices. How many of us find ourselves in a hurry to get to work, and pull out our cell phones to falsely

absorb ourselves in a text message in order to avoid conversation with someone who is approaching? How many of us measure our success by our task-related outputs at work, and sacrifice our friendships to achieve those ends? I never realized what an oddity it must have been for people in Ghana to see me rushing about with a cursory smile or wave of the hand to my neighbors (or sometimes no acknowledgement, I'm ashamed to say) and to see me always wearing my shades.

One day, one of my few Ghanaian friends approached me and said, "Why are you so time-conscious all the time? Your work will be there for you later. If you want to make more friends, take off your shades and make some time for people." It was a subtle yet remarkably important transition point, to realize that while I may always be viewed as a foreigner, I was not doing anything to help my cause. In fact, I was perpetuating my own isolation. From that point onwards, I made a conscious effort to take off my shades as I approached people on the street or in the hostel compound. I put work out of my mind and slipped a smile on my face. Though it all initially felt completely manufactured, I had to get over my own pride to admit that my self-isolation was a poor coping mechanism. Soon, I started having more organic, meaningful conversations with people and made several new friends.

In hindsight, I realize that the interactions I avoided were actually the gateway to mutual understanding, the foundation on which those lifelong friendships I so eagerly sought are built. As a result of subtle changes in my behavior and mindset, I had so many interesting conversations that enriched my experience in Ghana, invigorated me, and granted me new and compelling purpose to the research I was doing. I interacted with the potential beneficiaries of my research and built relationships with future colleagues. It was just a matter of revising my goals and priorities and accepting the reality—that I would always be seen as an outsider, but that being an outsider is not necessarily incompatible with being accepted or familiar. My advice to anyone who is engaging with people in a new environment: take your shades off and adjust your vantage point. You'll be surprised what a difference it makes when people can meet your gaze and how much brighter everything seems.

Nauzley Abedini is a student at the University of Michigan Medical School.

Break the Silence

By *Nauzley Abedini*

A mother held a lifeless infant in her arms – an infant who minutes before had been healthy and active. Her shocked and bewildered cry hit me like a tsunami, threatening to drown me in the grief one only associates with an unexpected, devastating loss. Instinctively, I reached out to touch her arm – to comfort her – but I suddenly recoiled at the sight of my pale hand, a startling reminder of my foreignness. I resigned myself to watch from the periphery as my Ghanaian colleagues gathered, encircling the wailing woman. She sat alone in a pool of cruel sunlight, rocking back and forth to the rhythm of sorrow, still clutching her dead child to her breast. I waited expectantly, in painful silence, for someone else – someone less foreign – to provide the solace that I could not.

Finally, a senior nurse stepped forward from the crowd. My heart leapt in anticipation of a show of empathy. But no – the nurse suddenly started a soliloquy, vigorously and repeatedly reenacting how the mother had wrapped her baby too tightly, ultimately suffocating it. With each rendition, the mother's wails escalated in intensity as she endured the public shaming. In truth, she had not been responsible for her baby's death, yet she bore the brand of guilt from the nurse.

I again felt the urge to go to the woman's side – this time to shield her from the nurse's accusations – but I held back. I stared down at my white hands, taking in the irony that I held so much power, but felt so powerless. I was a privileged outsider, a guest in an alien culture. My skin color and Western upbringing afforded me an uncomfortable level of influence and constant scrutiny. Any action on my part, while perhaps temporarily quelling my own desire to provide comfort to a suffering human being, could potentially be construed as intrusive and condescending. I was terribly fearful of the consequences that could come from my interference, and thus remained silent.

I spent nearly a year in Ghana, taking in more circumstances that left my moral compass spinning: physicians wittingly turning their backs on their patients and their profession during repeated, prolonged strikes; providers making countless verbal and physical assaults on patients in my presence. I stood by, reticent and passive, adopting

a mask of unconcerned amiability. All the while, my inaction made me feel like an accomplice to social injustice. I tried to tell myself that it was right to stay out of it, and that passing judgment on such situations using a foreign ethical framework was inappropriate and unfair.

Yet I felt hatred brewing within me. I hated the providers who behaved in ways that I believed were fundamentally at odds with our professional obligation as healers. I hated the culture that condoned such dispassionate behavior towards those who, by no personal fault, had been born into a destitute and disempowered life. And, oh, how I hated myself. I hated my hesitancy to serve as an advocate. I hated my skin color and all of its social implications that kept me from connecting with others. Above all else, I hated my own capacity for intolerance and judgment.

I sought desperately to counter my disenchantment with Ghana and humanity, looking for inspiration amongst the devoted doctors crossing picket lines and the compassionate providers treating patients with kindness. I even tried rationalizing the ethically dubious behaviors I witnessed. Perhaps those providers aspired to treat patients with a tender hand, but in the face of so many environmental stressors and resource constraints, they couldn't. Perhaps they went home at night and felt remorse and self-hatred as I did.

Yet, despite these rationalizations, I was consumed by an overwhelming sense of apathy towards my colleagues and work environment. I condemned their behavior as un-humanistic and immoral. I, myself, witnessed injustice and failed to rise to the occasion again and again. I was simultaneously a self-righteous, moral bigot and a hypocrite. There is no worse sensation than holding yourself to a certain moral standard, but finding that your actions are discordant with it. It leaves you feeling deeply depraved, empty, and false.

When I returned to the States, the emotional vacuum remained. I resented the lauds I received for my work in Ghana, feeling unworthy of such praises. I met individuals who had spent time abroad and envied their elation and sense of purpose as they recounted the inspirational circumstances and people they had encountered. I wanted desperately to feel the same way, but didn't. Behind my mask, I struggled to hide the intense disorientation that threatened the lens through which I saw medicine and humanity. Most of all, I felt deeply unsettled and ashamed by what my experiences had taught me about myself. I was prone to hatred, prejudice, and cowardice.

I desired intensely to tell someone how I felt and remove my self-constructed mask. Perhaps, in the act of telling, I could repent for my hatefulness and complacency. And so, four months after returning from Ghana, I found myself sitting in a meeting with my mentors, struggling to find the words to set myself free. Surprisingly, I didn't need to say much. My mentors saw right through my guise with the practiced wisdom of those who

have borne and cast-off masks of their own. They offered simple yet pivotal advice: “Just accept. Accept the good, bad, and ugly, both within you and around you.”

Every day since then, I have endeavored to accept, and also to forgive. I have found it easier to forgive those who made me question the fundamental good within humanity and myself. Self-forgiveness has proven more difficult. I constantly question the appropriateness of my silence in Ghana and remain haunted by the notion that I could have done more to give a voice to victims of social injustice. At least, in speaking out now, I have found solidarity. I am comforted knowing that I am not alone – that others are fighting their own internal battles, questioning the silence.

Nauzley Abedini is a student at the University of Michigan Medical School.



View from inside the ‘Door of No Return’ at Elmina Castle,
a former slave-holding fortress in Ghana.

Photo credit: Nauzley Abedini

The Lone Man at a Child Welfare Clinic: Making a Case for the Role of Men in Neonatal Health

By Henrietta Afari

It is a widely accepted cultural norm in Ghana that mothers are directly responsible for caring for their newborn babies. They are expected to feed the infants, nurse them, and ensure their overall health and well-being. At a typical child welfare clinic, there is often a crowd of mothers presenting their children for review, proudly strutting as they bring them up to be weighed and baring their children's arms and legs for yellow fever and BCG vaccines. But in all the excitement that happens following childbirth, one often wonders: where are the men? Is there a need to revisit the apparent invisibility of fathers in the fight to reduce neonatal mortality in Ghana, and is there a way to encourage greater participation from them in neonatal care?

Two summers ago, I had the privilege of observing a child welfare clinic session at a remote rural community in southern Ghana. The makeshift clinic consisted of a few benches under a tree for the clients, a desk for the nurses, and a rectangular wooden structure with a weighing scale dangling from a hook in the middle. Not surprisingly, there was a teeming mass of women waiting to be seen by the nurses. A few hours into the session, we all looked up to see a man appearing to be in his mid-40s walking up to the clinic, beaming with pride, with a baby in his arms and a green child welfare booklet in his hand. He was unaccompanied.

"Where is your wife?" Many mothers asked.

"She is busy. She is getting her hair done at home," he replied. Almost immediately, a slew of reprimands were hurled at this apparently negligent mother. Did she think she was better than all the rest of the women at the clinic? How could she sacrifice the health of her baby for something as seemingly trivial as looking nice? Surely, she needed to be punished for her slack behavior. In all the uproar that followed, no one acknowledged the laudable efforts of this conscientious father. He could have agreed to skip this week's

child welfare session with the excuse that the person tasked with doing so was busy. Or, he could have used the excuse of work to leave such matters to his wife. Instead, he realized the importance of ensuring that his child's growth was progressing at expected rates and that his immunization status was up-to-date. Despite its noble aspirations, the work of this father went unnoticed. At that clinic, the role of the father had been made invisible. The lone man said not a word. And after he got all his baby's vaccines and well-checks, he left the child welfare clinic, arguably with less confidence in his stride than he arrived with.

Every year in Ghana, 76 out of every 1000 live births die before they are five. About 29% of these deaths occur within the first four weeks of life. Neonatal deaths (those within the first month) undoubtedly account for a significant proportion of deaths among children less than five years old (under-5 mortality) in Ghana. Reports show that more than 80% of neonatal deaths are preventable with good quality antenatal, perinatal and postnatal care,¹ and child welfare clinics function as a mechanism for health staff to give regular postnatal care to infants and children. A defining feature of most of these clinics is health education where clients are educated about the importance of immunization and growth monitoring, and instructed on how to properly care for their babies. At the community level, this often takes the form of durbars and radio shows where mothers are encouraged to present their children for regular, scheduled review. Not surprisingly, fathers are rarely targeted in community education nor are the efforts of the few who care for their children commended.

In the fight to reduce under-5 mortality in Ghana, it might be worthwhile to leverage fathers' existing interest in their children's welfare and engage them early as key stakeholders. For instance, if two parents are educated on common neonatal causes of death like sepsis or asphyxia, there will be two pairs of eyes instead of one looking out for danger signs, and the chances of early recognition and timely treatment will be increased. Moreover, with most rural Ghanaian communities largely operating patriarchal systems of governance, ongoing neonatal and child health efforts stand to gain immensely from including fathers and men, as well as women, not just in final policy endorsements but rather earlier in the process to allow for richer, more empirical, and more invested discussions of effective change ideas for improvement. In the effort to accelerate Ghana's achievement of Millennium Development Goal 4 of reducing under-5 mortality by 66% by 2015, it may be worthwhile to borrow from ongoing national family planning efforts. The group's most recent campaign ad on national television runs under the banner, "Are you a real man? Real men plan their families." With similar motivations, child health

¹ Lawn, J. E., Cousens, S., & Zupan, J. (2005). 4 million neonatal deaths: When? Where? Why? *Lancet*, 365, 891-900.

campaigns should encourage fathers to become more involved in the healthcare of their children with a slogan that could say something like this: “Are you a real man? Real men know their children’s next polio vaccination date.”

Henrietta Afari grew up in Accra, Ghana, and came to the US for her undergraduate training. She is currently a 4th year medical student at Harvard Medical School, with plans to pursue residency in internal medicine next year while maintaining her interest in health systems strengthening in sub-Saharan Africa.

My American Project

By *Stephen B. Asimwe*

Coming to America

Sometime after University, I knew I wanted to leave my country. By all standards, I was from a problematic demographic. Born and raised very poor, I had, as a child, strangely built many castles in the air — which I did not get to live in — but I had remained optimistic. I still had time. Then, childhood had come to an abrupt end. Without warning, I had become an adult. Praises had morphed into expectations, and feelings of “*missions unaccomplished*” were taking me over. I had to go somewhere or run out of time.

America though was not my first choice. The eleventh of several children, I was grateful for the scarcity, sometime back, of family planning services in Uganda, but I was the first to go to University. I would face a hard time alone in America. But both America and the University of California San Francisco were lands of opportunity, or so I had been told. I took the risk.

The first flight is the longest

The physical distance between Uganda and the US is quite large. By the time we arrived at the airport in San Francisco, I had not seen the night, but knew that I had been travelling for days. I went to baggage claim to find a chair, and sleep; I had lost interest. As I entered baggage claim, someone called my name. It had escaped my mind that this lady would be receiving me at the airport. Sitting in her car, with her driving out of the airport at an incredibly high speed, I somehow regained my interest in my American project. I began to reflect on what I had seen today — and would see subsequently.

My mental sketch

Before travelling to a new place, we usually create mental sketches of what it will be like. My mental sketch was not bad but was fraught with underestimations. As an example, I had expected long bridges, but had underestimated the size of their pillars.

I eventually concluded that infrastructure, energy, and transport, are what distinguish rich from poor countries. Infrastructure is orderly steel and concrete, and wide roads. Energy is electricity running everything, and everyone knowing that it is important. Transport is trains that allow you to live miles away from work, and airports where planes line up to take off or land — continuously. I had always criticized western systems as being a little too perfectionist. With time, I thought that maybe the perfectionism was justified. To have thousands of planes crisscrossing one another's path every day, you must get it right — all the time.

My language problems

On a connecting flight to Chicago, a United Airlines flight attendant had asked me: "What can we serve you, sir?" I had replied, "Hot water." In my rather direct accent, hot would have sounded like: "hawt"; water like: "wotta." She, rather strangely, did not seem to hear me. My neighbor then intervened and told her, "He said he needs hot water." In her American accent, which nearly got me protesting, "Hey, that is not what I said!" "Hot" would have sounded like "hat," with the "t" a little silent, "water" like "wada," with the "d" neither a "d," nor an "r," but the so-called "silent d." This conversation was a prophetic sign to me of impending problems, but I had not paid attention.

I was to later learn that people genuinely did not hear me when I spoke, a very disappointing realization. Like everyone else, part of my grand plan was to make new friends. How would this happen if they did not hear me? As time went on, I got my answer. The conversation would get strained eventually forcing one of us to pretend that they heard what the other said by nodding in agreement; a highly risky strategy. I just asked you, "Where did you eat out last Friday?" and nodding in agreement, you reply, "Okay!"

Over time, I watched educational YouTube videos, and improved my English, aiming, in part, to open my mouth more, and be a little louder, and more articulate. I eventually became more audible, although I do still get those bewildered stares going like, "*What on Earth is he talking about?*" Most definitely, they do not get my jokes. With jokes, you can tell, especially if you are sure that what you just said is funny; and they are looking at you like nothing happened.

Civilization

I have come to think about civilization differently. I think that civilization is when you hurry on the road but slow down on the door; and if someone else appears to be in a hurry (at the door), you let them go in first. It is when people feel that there is going to be enough for everyone, and that it will not matter, if they miss out, and so, see no need to squeeze against each other in order to get through first. It is also when people respect the

thoughts, feelings, and opinions of others, and admit that people are different, and that people will remain different. At times, I nearly take back my definition when someone shoves me off a line. I do also see some that hope to make everyone the same, or give no regard to the feelings, or status of others: America has got its own problems. For most people though I guess, it remains the land of opportunity.

Final thoughts

I have learned a few things about American society. I think that, compared to my country, America is more nuclear (no pun intended), i.e., organized in smaller units of family and friends. There is a private space around everyone, but (some) people, are actually nice. Contrary to what it might be in my country, in America, immediate reactions to a stranger seem to range between indifference and suspicion. Finally, I should never have worried about the food: it is okay.

Despite all my problems, my so-called American project — which really is nothing but an unrealistic plan to eventually see one of those castles that I once built — has taught me that striving for excellence, whether as an individual, or as a society, is (sometimes) not in vain. Tunnels can actually penetrate mountains, and bridges that look impossible can be built. In a way, some of these things have validated my personal optimism: even the wildest things you can imagine are not always impossible.

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Behind the Baobab Tree: A Story of MSM Culture in East Africa

By *Ishan Asokan*

The Indian Ocean's foamy mist greeted us as we arrived in Mombasa. Twelve years had passed since my first visit, and now, with a backpack filled with memories of coconut trees and shimmering coastlines, I embarked on a journey that would forever alter Mombasa's meaning to me.

Before that evening's stakeout I had spent three months studying Kenya's MSM (men who have sex with men) commercial sex industry. During my investigation, I struggled to understand how, in a country where homosexuality is condemned and criminalized, such an industry could thrive so publicly. Through my many conversations with players on both sides of the game I encountered fathers, sons and husbands secretly soliciting what belonged to them - their identity. But, these interviews were not enough; I had to see this underworld for myself. I needed to go to Mombasa's famous nightclub, Bishara.

Choking back hesitance, I entered Bishara with my very own Virgil, Saif. Saif was a member of our prevention staff, and took it upon himself to show me this dark side of Kenya. Over the course of three months, I came to know Saif very well. I learned that he was HIV+, that he struggled to adhere to his medication regimen, and that despite enduring instances of rape and abuse, Saif found solace in being a part of HIV prevention. I grew to trust him and on that particular night, I was glad to have him with me.

After wading through a maze of lust-drunk tourists, dancers, and businessmen, we secured seats by the bar. With keen interest I examined my surroundings, only to later discover that I was being thoroughly inspected myself.

"May I sit?" winked a beautiful Swahili girl. "Oh, sure" I responded. But before I could even ask her name, I felt her hand reach for my thigh. Alarmed, I pushed her away and said, "Please don't do that. It makes me uncomfortable."

"Then why are you here? Are you not a man? You are behaving like a *msboga* (homosexual)!" she cackled. But when she saw my guide, and recognized Saif, her

countenance transformed from charming to frightening. “I *hate* gays,” she shouted. “You are ruining my livelihood. You are ruining my work, OUR work.”

This was not the first time I saw the MSM sex industry threaten its female counterpart. In visiting clinics in Kilifi and Malindi, I heard of male commercial sex workers (MCSWs) charging three to four times the going female rate for similar services. Female commercial sex workers (FCSWs), quite unsurprisingly, detest and protest the presence of MCSWs vying to dissuade otherwise curious clientele.

Though I was no client, the sex worker’s embarrassing remarks made me feel, for the first time, unwelcome in East Africa. My attention, however, was soon drawn to a male sex worker watching nearby, Masha Baanu.

“Don’t mind that silly girl, my sister,” he chuckled as he slid into the vacant seat.

“What’s your deal?” Saif responded with a giggle.

“Ha, just finished with a client in the bathroom. Had to pay the *ascari* (guard) to keep watch so we could do the deed. But still, the *mzungu* (white man) paid me so little. I can’t even buy cigarettes for the Matatu ride home,” said Masha.

“How much did he pay you? Did you use a condom? Do you know his HIV status?” I fired off the questions, attempting to mask the light buzz I was starting to feel from my beer.

“No, I got 500 shillings instead of the 300 I would have got if I’d made him use a condom. It’s pretty simple, really. And HIV, well that’s a done story,” he lamented, ordering cigarettes on our tab.

This was a common response, especially on the coast. Unlike this particular MSM, many get offered enormous amounts for unprotected anal intercourse. Despite the condom dispensers in nightclubs, clients often opt for the short-term enhanced pleasure over the long-term risk of infection. Just beyond Bishara, numerous sex houses make securing a bit of fun all too easy.

“So, *je-Ma* (tell me), why are you here with no man?” Masha asked.

“I’m here for field work,” I said. “And, what brings you here?”

“Well, that’s obvious. We all want a *mzungu* or a *mubindi* (Indian) to whisk us away. It’s hard here. We do this to eat, to drink. We get beaten, harassed, and jailed for the lives we live.”

He continued as he puffed his cigarette, “The worst part is that it is low season now. We are anxious, driven to steal, and willing to accept any payment we get. The *mzungus* come from Nairobi to drug us, have their fun, and leave without giving us so much as a shilling.”

I listened as Masha talked, but was preoccupied with worry over Saif’s now lengthy absence. Though he had assured me he would return in a few minutes, nearly an hour

had passed since his departure. Unsure of where he had dashed off to, I closed the tab and went out in search of him.

Bishara was hardly navigable for a newcomer and I was unnerved each time I entered a different room or new corridor. When I got to the ground floor, I was shocked to find even scarier surprises housed within it. As I opened the door, I saw Saif getting dressed, after finishing with what appeared to be a session with a client. He quickly scrambled to gather his things, pulling me forcefully out of the room. I had heard the rumors that some of the prevention staff engaged in transactional sex, but I was unprepared for the sadness I felt seeing that it was true.

The guilty Saif stared at me, trying to gauge my reaction. But, beyond my initial feelings of shock and sadness, I was beginning to really understand the nature of his actions. HIV prevention and sexual safety in Kenya could no longer be restricted to regular testing and distribution of condoms. The reality was that treatment as a form of prevention had to be embraced as it was clear that risky sex would continue.

From an outsider's perspective, it is easy to see the challenges impacting most at-risk communities, but it's saddening to see the challenges within them. Not taking ownership of their safety and accepting little pay for unprotected sex keeps the world's oldest profession alive and well in Kenya. But, that is what happens, when there is no other way to survive.

Ishan Asokan is a student at Vanderbilt University School of Medicine.

Love and No Other Drugs

By *Ishan Asokan*

The scorching heat of the Arabian sun greeted my frail face as I awoke that Friday in Amman, the capital city of Jordan. It had been nearly four weeks, and my research block at one of Jordan's premier hospitals was drawing to a close. I appreciated my practicum in the Middle East, since the country offered scientific luxuries I naively believed to exist only in the States. State-of-the-art labs, the newest chemotherapeutic agents, and plenty of support from Arab financiers branded this hospital as a top contender in the international healthcare industry.

My Friday that week, however, would change my perception of Jordan's health system forever. It was during this time, the summer of 2013, when the Syrian Crisis began to escalate. The *Zaatari* Camp, famous for swelling Jordan's population by nearly 20% in a mere couple of months, became the focus of the United Nations Development Programme and the world. Thousands of aid workers and troops attempted to meet the demands of the crisis, but failed to keep up with the droves of refugees freshly occupying Jordan's border cities.

My contact with Syrians was sparse until a week into my stay, when a merchant from Damascus moved into the apartment next to me. Mitra, a jeweller in Amman for nearly three years, immediately captivated the attention of our complex. His pride for his country was reflected in the fine arts he traded, but his hospitality was his greatest gift. Each night's festivities centered upon meals with Mitra, as he would dine us, entertain us, and shower us with Syrian traditions and customs. But, to our worry, Mitra's demeanour rapidly changed one morning. I recall hearing a horrific cry in the apartment next door when the city of Aleppo came under attack. While the BBC reported mounting atrocities, Mitra was informed that his family had been injured from air strikes. The greater tragedy was the lockdown that took place shortly thereafter, preventing him from breaching the Syrian border to provide help.

His only therapy, at the time, involved seeing other Syrian refugees stationed in Mafraq, a border town not too far from Amman. And, given that it was Friday and a

day dedicated to *Allah*, I felt compelled to help him in his time of need. So, I joined him as he filled his van with toys, candy and clothes for a trip to this now controversial city and haven for the displaced.

The small town of Mafraq hosted numerous refugees, many of whom were now described as insurgents by the Jordanian media. The UN labelled *Zaatari* as unsafe and a source-point for drugs and crime, further crippling the role of aid efforts. Mitra routinely volunteered, however, in the small tents flanking this fortified campsite. He made promises of bringing healthcare and medicines to the patients in need. I did not realize, however, that I was the healthcare he was then referring to.

Without even a stethoscope in hand, I ventured into the colourful UNHCR compound, routinely introduced as “the Doctor.” At this point in my career as a medical student, it was customary to blindly nod in agreement with a suspected ailment, without knowing the scientific basis for its occurrence. I thus remained a novice at physical diagnosis, which was visible at the time. Though I knew I had limited skills to offer, Mitra’s words of encouragement somehow nudged me into the first tent.

This small home featured a veiled grandmother with blinding glaucoma, to which I responded with a presumed diagnosis but failed to treat. The second tent I entered showcased a father of five who sustained five bullets to his leg. A botched procedure and series of infections following insertion of a metal rod rendered him unable to walk, possibly for the rest of his life. To this handicap, I shook my head in disbelief and disapproval. The third tent, now housing eight family members, featured a man with two wives, one of whom suffered from a bout of dermatitis. To this, I mentioned potential treatment with a topical corticosteroid. Again, a resource that was then also absent from my arsenal.

As I travelled from tent to tent, the guilt of providing nothing more than kind words weighed me down, highlighting the unforgiving inequity I benefitted from for the past four weeks. Just an hour away from this decayed, sand dune city stood a mecca of medical aid, one in which these patients could receive immediate resolution and life-altering care. But newfound racism, a lack of resources, and the challenge of a population exceeding a nation’s supply barred access to treatment. It hurt me to see Mitra’s dual expression of sadness and gratitude, further evidencing that Syrians were to remain a foreign entity, perhaps even permanently, in this land.

When I asked Mitra why he brought me to this camp, he said he just wanted me to witness the plight of his people. Even this empathy, this ‘love’, was enough to inspire awareness for the position of his community. He was convinced that through prayer and devotion a solution would come in weeks, perhaps even months. But I was convinced that these people needed more than the love Mitra spoke of – they needed basic, unprejudiced care.

Though I am unsure what may happen to the Syrians I saw that day, or in the final weeks of my stay in Amman, I know that the world's eye needs to be refocused on them. It is a crime to be gifted the skill of caregiving if this care is to be restricted and laced with prejudice. It is thus unsurprising that I worry for the people in the Middle East and simply hope they receive more than our thoughts. But, this is the story, when there is love and no other drugs.

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Hacking for Human Rights: Global Health in the Age of Radical Transparency

By Bethany Bogges

Globalization has dramatically affected the health of populations; access to food, clean water and health care are increasingly controlled by multilateral institutions and corporations. Radical transparency is an ideology embraced by hacktivists (hacker + activist) that calls on governments and corporations to operate openly in the new global era that relies on digital information networks, often with the end goal being the advancement of human rights. Wikileaks and Edward Snowden are well-known examples of acts of radical transparency that have exposed violations of civil rights and blatant corruption with the Internet as their medium. Recently I joined an international volunteer group of investigative journalists, hackers, students, and labor rights institutions seeking justice for Bangladeshi garment workers with radical transparency as the rallying cry, and the experience made me rethink the boundaries of global health. A new intercept point for public health, human rights advocacy and hacktivism is emerging, and it is aimed at building inclusive collaborations that examine, expose and eliminate the root causes of health inequities experienced by the global poor.

In October 2013, the volunteer group I joined formed a “data expedition,” which was led by the London-based School of Data.² The data expedition was a global collaborative hacking project that focused on the horrific industrial disaster at the Rana Plaza in Bangladesh that killed 1,129 workers in a building collapse in April 2013.³ The primary goal was to connect the supply chains of the international garment industry in order to expose the companies that source from the factories that commit human rights violations. The first step was to find the factories with the greatest labor

² School of Data. (n.d.). Home page. Retrieved from <http://schoolofdata.org/>

³ Butler, S., & Hammad, S. (23 Oct 2013). Rana Plaza factory disaster: victims still waiting for compensation. Retrieved from <http://www.theguardian.com/world/2013/oct/23/rana-plaza-factory-disaster-compensation-bangladesh>

and human rights violations, then uncover the U.S. and European companies buying from these factories, and finally to disseminate that information to journalists and grassroots consumer groups to pressure corporations into socially responsible behavior. This international group of social activists, journalists, hackers, labor professionals and students spent a weekend on video calls, Google docs, and Datahub sorting and cleaning cryptic import/export data, geocoding factory locations, and researching labor violations and work-related fatalities in Bangladesh. The hacktivist approach to the ongoing assault on workers' rights in Bangladesh aimed to attack the root issues of poor working conditions for a highly vulnerable population, which focused on the global network of consumers and corporations rather than small factory owners. While hackers often have a poor reputation among academics and government officials, many have a strong social conscience and want to see their skills utilized for public benefit, including corporate accountability, environmental justice, and public access to research and scientific advancements.

I learned a key lesson from participating in this hacking for human rights project: Public health needs to keep pace with globalization. Radical transparency and hacktivism offer a chance to construct global collaborations that include participants from all levels of society and from all nations to address the root causes of poverty, disease, and despair. These root issues are not simple or singular: addressing a web of opaque multilateral trade accords, passively corrupt NGOs and blatantly abusive government policies requires the efforts of activists and advocates from all disciplines and sectors of society. But the complexity of these causes of inequity does not preclude them from solutions. The field of public health was originally built on the principle of social justice, which focuses on addressing the impact of the global political economy on health, and it is social justice that must remain our primary goal.

Tackling intricate international supply chains and the fatal consequences of political disregard for worker health and safety in global free trade is not easy. The experience I had linking U.S. corporations to collapsing factories on the other side of the globe has left a deep impression: Realizing social justice and eliminating health inequities means that action must be taken on not just the surface of those inequities, but on their deeply buried roots.

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The Investigation is Ongoing

By *Andrew Boyd*

The woman was younger than most of the women in the ward. Her brother confirmed that she was 16, but they put her in the women's ward because the pediatrician was not available to see patients. Previously healthy, the young woman had become more fatigued over the last few weeks, and she was no longer strong enough to walk to school. Then, two days ago, she began sobbing about sudden pain in her knee, which then became red and swollen. Now she was having trouble breathing. Her brother brought her by bus to the hospital in Kigali, the Rwandan capital, for help. I heard this story, I looked at this very sick young woman, panting for breath, and I panicked.

Every morning at the hospital in Rwanda, I struggled to keep my head above water. Working in the capital city Kigali's main referral center, my team was in charge of twelve patients, all young women. I was a second-year medicine resident doing an elective rotation in Africa, and I was trying, for the first time, to lead a team of local residents and interns in diagnosis and treatment of patients. The prospect of assuming that leadership position in the US, in a system I knew well, was enough to make me nervous, and now I had to do it here.

In this very poor setting, I realized that I, like the Rwandan physicians, had to make medical decisions without the ancillary information I previously relied on to help make diagnoses: CT scans, blood tests, and the advice of specialists. Instead, resource limitations forced me to make decisions based solely on epidemiology, medical history, and physical findings. Granted, these bits of information were often enough. Many of our patients suffered from HIV, tuberculosis, or malaria, difficult infectious diseases but ones that were common, diagnosed easily, and had available treatments. For these patients, we approached the patients with confidence and authoritatively wrote our plans in the charts. And then there were patients like this young woman, whose diagnoses eluded us.

"I think it's a blood clot in her leg that went to her lung," volunteered one intern.

"What about sepsis? Pneumonia plus bacteremia," another posited.

Or it could have been a juvenile inflammatory condition, or leukemia with leukostasis, or anaphylaxis with pulmonary capillary leak. I lamented, both to myself and aloud, that we could not check a lactate dehydrogenase level, could not order a CT scan of the lungs, and could not call a hematologist to do a bone marrow biopsy. If only we had the information we needed, we could get this right! The degree of uncertainty was made all the more acute by how rapidly the young woman was failing. We decided an infection or a blood clot was equally likely, and each was potentially fixable. We started antibiotics and a blood thinner. Commensurate with our uncertainty about the diagnosis and treatment, the medical student wrote vaguely in the patient's chart that "the investigation is ongoing." The patient died later that evening.

One of my friends in the US has been sick for the past year. Not sick in a dramatic or terminal way, but sick enough that she has cut back at work and occasionally avoids parties. She has fleeting but frequent episodes in which she feels lightheaded, with blurred vision and a pounding heart. She has seen a cardiologist, an endocrinologist, and a neurologist. She has had MRIs of both her heart and her brain. She has had a heart monitor, an EEG, and blood tests searching for endocrine tumors. Despite her access to multiple specialists and the availability of expensive blood tests, her physicians are unable to present her with a diagnosis, and by extension, unable to present her with a treatment plan. I am also unable to offer definitive answers, which makes me feel inadequate, both as a new physician and as her friend.

I think frequently about these two young women, but the way I think about them now that I am about to finish residency has changed. In Rwanda, I fretted that I did not have the labs, the imaging, and the consults I thought I needed to do my job. I thought the problem in Rwanda was the existence of medical uncertainty, and that if Rwanda had more testing, then more patients like that young woman would be definitively diagnosed and subsequently cured.

But in counseling my American friend, I learned that extensive lab investigations and specialists do not guarantee a diagnosis or deliver a treatment. We as health professionals, whether in Rwanda or the US, cannot eliminate medical uncertainty. What we can do is work earnestly with the information that we do have, provide a source of comfort to the patient, and do our very best to make that area of medical uncertainty as small as we can. When I was in Rwanda, it bothered me profoundly that "the investigation was ongoing." Now it inspires me to work harder.

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Old Neighbors: Exchanging Values on the Reservation

By *Eric Bressman*

The dust kicked up behind me in the late afternoon of another North Dakota summer day. I'd ventured further west than on any of my previous rides, and I happened upon the pow-wow grounds just past the outskirts of a small neighborhood. My comically undersized bike rattled along as I admired the backdrop: rolling green hills meandering down toward glistening ponds and back up toward tree-lined plateaus. I was struck by the contrast to my expectations. The road west of Fargo on my drive to the Spirit Lake Nation reservation had yielded two truths about eastern North Dakota: topography is in short supply, and Jesus remains a powerful muse on the North Dakotan airwaves, second only to pickup trucks. These were no Alps, to be sure, but it felt like a veritable oasis in the middle of an endless ocean of ho-hum amber waves of grain. Another radiantly yellow meadowlark had just caught my eye when I was snapped out of my peaceful daze by the sound of a rez-dog barking up ahead, protecting its territory. I tried to continue forward non-threateningly, but the dog quickly gave chase and I abandoned all pretenses. The road curved left, and I pedaled like a mad man as the dog easily kept pace. We were in front of a row of houses now, and some of the residents looked on, laughing as I pedaled ferociously by with the dog barking at my heels. It occurred to me that I was probably in less danger than I originally thought, and as I came to a stop the dog proceeded to lick my leg and walk alongside me. Finally someone let out a whistle calling it back, and I continued on home.

In the weeks leading up to my time on the reservation, I was often asked if the people still live in tepees, and in the weeks afterward people wanted to know if I had been given an Indian name. The answer to both questions seemed to disappoint most people, although I'm grateful I was spared the moniker Soils Himself on Tiny Bike. But what struck me most was that after the few dated facts that most of us picked up in elementary school, just about everyone's knowledge ran dry. And I don't fault them for

their ignorance, either. Until I started reading about Spirit Lake and the Dakota people a few months prior to my departure, I was equally unaware. I eventually learned a great deal about the current state of affairs in Indian Country, but what resonated with me more than anything was how little I had known before. I began to wonder whether the final, and perhaps greatest, injustice committed against the American Indians was simply their relegation to anonymity.

Our job on the reservation was two-fold: to teach a class on public health and health careers at the tribal college, and to run a camp for pre-teens with a health careers theme. The goal was to encourage members of the tribe to eventually pursue careers in health. The ambitions our students expressed at the end of the summer indicated that our message had hit home for many of them. But the appreciation expressed by the people we met and worked with seemed to transcend the project in which we were involved. They thanked us graciously and profusely for coming, almost as if the greatest service we had performed was the simple act of showing up. They invited us to break bread with them and welcomed us into their spiritual community. I thought about how little the issues that plagued their community factored into mainstream American discourse, and it began to make sense. From the moment the native tribes first encountered our forebears some four hundred years ago, they'd had their basic humanity ignored time and again. Talking with the people on the reservation, it seemed that, from their perspective, the disrespect with which they had been treated for centuries was an outgrowth of the same fundamental injustice that engendered their sense of anonymity today. They simply wanted to be understood, and if people could just see the beauty of their way of life they might finally appreciate the common humanity that connected them.

After telling people about the reservation, they've asked me if it's a depressing place. Unemployment in Spirit Lake is nearly sixty percent, many small homes are occupied by ten to fifteen people, and obesity, diabetes, and alcoholism are as pervasive as ever. I think the question misses the point, though, because the atmosphere of a place is rooted in the people that inhabit it. Indeed, there are some bad people on the reservation, as well as some unlucky people. But there are also many beautiful people, individuals whose spirit and capacity to love shine brighter than the sun over the great plains on a summer afternoon. Some of them may become nurses or doctors or politicians, while others may never earn a college degree. The last question I've commonly received is what can be done to improve the situation on many reservations. The answer, in short, is that I'm hardly qualified to answer such a question. I do know, however, that at the core of our own project's success were the relationships we formed, and if any of the people we met walked away inspired, it is only because we engaged in a mutual exchange of values. For a century our forebears chased down the native tribes until they had the land they wanted, and we've spent the century and a half since running away, trying to forget the fate to

which we consigned them. If our hope is to right the wrongs that have been done, our first step must be to stop running, and simply connect to them as friends and brothers. Only when we establish a clear understanding of mutual respect and learn how to learn from them, can we hope to finally share some of our own values in a meaningful way.

Eric Bressman is a graduate of Columbia University and a current medical student at the Icahn School of Medicine at Mount Sinai. He spent a summer teaching on a Native American reservation through the Mount Sinai Global Health Department.

Santosh⁴

By *Megan Campbell*

You never know what you have until it's gone ... I sat on the red carpet with my legs crossed listening to the shopkeeper as he lit up with pride talking about his country. We had spent the past three weeks in India, mostly in remote villages within the Himalayan Mountains. "What is India?" the shopkeeper asked. Feeling put on the spot, I looked over at friends who had also come to the shop, and was puzzled and overwhelmed with where to start. "I will tell you what India is. It is a land of magic," he answered. The shopkeeper, who had insisted we enter his shop for a glass of chai, was doing very little to try and sell anything. He simply wanted to tell us about his country, about the Taj Mahal, about the *magic*. He went on describing the regional differences throughout the country with regard to language, religion, and overall culture. As he talked, I thought back to the person I was three weeks prior and about the person I had become. *Maybe this country really was one of magic?*

I remembered the morning of July 16th and how it could not come fast enough. The excitement, anticipation, and anxiety had festered and grown and far surpassed the emotional capacity of a single person. With very limited international travel, I was travelling to the Himalayan Mountains for three weeks to do clinical work. I was going to be alone half way around the world. I was entering the unknown completely unprepared. Yet, despite all of this anxiety, there was still an unwavering excitement about the challenge ahead.

As I boarded the plane in my hometown, I looked back to my parents. Through the preparation and planning, they had been my biggest cheerleaders. Now, they were fighting to hold back tears, and surprisingly, I found myself doing the same thing. I quickly waved, gave a half-hearted smile and looked forward praying no tears would make their way down my cheek.

⁴ *Santosh* is Hindi for contentment

I spent the next 48 hours in international airports, hopping from one plane to the next until I met the rest of the team I would be working with in New Delhi. As we approached the hotel there were wooden carts hooked to bikes everywhere. I would later learn they were rickshaws. They were big enough for maybe two people to sit, yet every single one had at least one person sleeping in a contorted position. As exhausted as I was, the frustration of trying to sleep on a plane immediately went away. This was the first time I realized the difference between the society I had left and the society I had now entered.

We drove for the next three days on bumpy, narrow, dirt roads as we climbed in elevation. Each hour we drove brought us to people with less and less, from what my eyes could see. Western toilets transformed into holes in the ground, the temperature became colder and colder, and technology virtually disappeared. To fill this void I decided I would journal.

After a few days, I was amazed to see how much I had written. Stories of people I sat near on the plane, elephants, cows, food, and even general reflections. I had become so much more receptive to my environment. I was beginning to transition from feeling homesick and like I had left everything behind to a feeling of gratitude and fortune for all that I was experiencing. Contentment was beginning to set in. All of the distractions back home were gone, and now that they were gone I could see the blessing of what I had left behind. I was no longer a fixture standing in the background of my environment. I was actually participating and observing what was happening.

When we arrived at our campsite, it was the most beautiful thing I had ever seen, with snow-capped mountains, rushing rivers, and pristine wilderness everywhere. We slept in tents with sleeping bags, had holes in the ground for toilets, and 3 liter buckets of water for showers. The people here, similarly, had nothing.

Driving to clinic one day we passed through a village where a young father sat in the dirt with his children laughing and playing. This man exemplified *santosh*¹, or contentment. I again saw what I had left behind by leaving home. This father helped me get past seeing these people as having so little materialistically, and showed me how rich this culture of people are with regard to family, spending time together, and valuing life. I had forgotten about the simple things in life—the things that last longer than a battery—things that last for generations, like time and compassion. Ironically, it was not until I shed the life from back home that I realized how much of my time was occupied with email and text messages.

Clinic only further reinforced the value of time and compassion, and it extended the value from personal life into professional life. One day, my preceptor reached over and held both arms of a patient, feeling the pulse on his wrists. He then said, “Feel the pulsations, the synchronization? Medicine is an art. Touching your patient is part of that art. They won’t teach you this in medical school.” For the past year, taking a thorough

history and completing a physical exam had been the most important skills to learn. This was no longer true. The most important skills to learn are how to listen and connect. I lost the ability to speak to my patients, but in turn I was appreciating another way of communicating. I had grown a new kind of ear towards my patients. The shopkeeper was right. India is a land of magic. I really didn't know what I had until it was gone, for better or for worse. In this magical land, I was learning the *art* of medicine.

Megan Campbell is currently a third year medical student at the University of North Carolina at Chapel Hill School of Medicine. She attended East Carolina University for undergraduate studies and received a Bachelor of Science in Biochemistry and Chemistry.



Photo credit: Megan Campbell

My Own Feet

By *Natalie Cassell*

There is a scene that comes to my mind in moments of quiet, in moments of daydreams, in glimpses when I talk to patients, and when I lie down and close my eyes to sleep. My thoughts come swirling up in a spout of memories and visions, bringing with them strong emotions that keep me awake and thinking.

Not too long ago, I sat down to eat with some fellow medical students and we almost immediately started into what experiences we recently had around the hospital and clinics. On her turn, one of my friends described her repulsion at many of her patients' feet describing one particular interaction with extremely unhygienic and poorly cared for feet that she had to manipulate in her examination of the patient. And as she spoke, assuring us she dutifully continued her exam without outward signs of disgust, I could feel the solemnity slip down over my face once more as my thoughts drifted to my own feet.

In my first month in the village, my new home, I became sick. Being sick away from home is more than unpleasant, but being sick in a foreign country, when you barely speak the language, have no friends, and endure the sweltering heat with no relief in sight, is frightening. I had an infection. I was feverish, my ankles were ulcerated, and my feet were swollen and painful. The doctor in the capital, a several days' bus ride away, repeated her instructions thick with accent from a distant world away: continue to bathe my feet in salt water in one of those multipurpose ubiquitous plastic basins. My water supply was grossly dirty and even boiling it was dubious: it was probably contributing to my infection. The cholera tents were visible at the hospital as rainy season continued, and I pushed hypochondriacal notions of dreadful illnesses to the back of my mind. I tried to carry on. A young man offered to show me how to make the first of many dreadful trips into the city to run errands. This ride was more painful than any other I remember. We waited for the minibus to fill over capacity in sweltering heat to make a 5-plus-hour jarring voyage of mostly unpaved road with no stops. My legs were unbelievably painful as I tried to disembark from our minibus in the city after sitting upright for so long and

I was unable to run any of my errands in the city. Previously determined to stay stoic, I broke down crying as we arrived at the young man's family apartment where all I wished was to be back in my own home and not have to act the part of foreigner and guest, a sometimes grueling expectation.

I was fighting back tears in a small third-world city apartment with strangers and a young man who I had known, apart from the long bus-ride, for a matter of minutes. And then it happened: he began to take care of me. I had been cared for since my arrival, but never at a moment of vulnerability such as this. Without hesitation, he fetched and boiled water and gently took off my dusty shoes as I cringed in pain. He peeled off my dirty socks and began to wash my feet in hot water and salt. I did not know this man and he was washing my dirty, infected, painful feet. I was grateful. As I look back I can't help but feel absolutely in debt to such a show of humility, compassion, and service.

I was helped a countless number of times during my stay in that country without question and the cumulative effect was to create in me a dedication to returning the favor. But in particular, having my repulsive, dirty feet washed by practically a stranger has played over and over in my head, reminding me of my dedication to service as a physician, to global health, and to communities at home and abroad like those I visited. I have yet to be able to run through this story without tears welling with gratitude and shame -- shame at my unworthiness in receiving such generosity, care, and compassion throughout my stay.

Hopefully I can earn the kindness I received in that country and repay them through my service as a physician. And whenever my mind flinches when dealing with the ugly side of medicine, I hope I can remember that once, when I couldn't, a stranger washed my feet.

Natalie Cassell is a medical student at Wake Forest School of Medicine.

Demystifying the Art of Medicine in the Mayan Landscape

By *Anne Marie Chomat*

Drawn by a desire to better understand human experiences of health and illness in marginalized contexts around the world, I have worked in several countries across the global south, first as a medical student and later as a physician and public health practitioner. Everywhere, I have been moved by the remarkable healing and coping strategies of those I have encountered, as well as their silence despite the profound inequality, social injustice, and structural violence they face. These experiences have shaped my beliefs, practices, and values, often challenging the very core of my formal education. Perhaps nowhere has it transformed me more than in the remote indigenous communities of Guatemala's Western Highlands, where I am presently working.

The following narratives are drawn from my encounters with *Mam*-Mayan women and the struggles they experience in their everyday lives.

September 2, 2012. Lucia hands me her newborn in a dark, crowded room of her family's adobe hut. I gently remove layer after layer of swaddling cloth, bright in color of the typical patterns worn in this remote mountainous area. A sash fastens half an onion against the baby's small stomach. Below the onion, a large bandage imbibed with an herbal ointment covers his umbilical cord. These are local remedies given to newborns with "pujo," a culturally perceived illness often affecting newborns in this area. The skin around the bandage is red and swollen, but I am unable to examine it well. I ask if I may remove the bandage, explaining my concern for an infection, but Lucia and the *facilitadora* (community health worker) accompanying me state that a traditional healer had placed it there, and that it has to stay on until it falls off; otherwise, the baby may die. As I hold her infant, Lucia asks what more can I do to cure him of "pujo."



Mam-Mayan woman with newborn infant

Photo credit: Anne Marie Chomat

The scarcity of resources blended with local *Mam-Mayan* narratives of health and illness, create a landscape foreign to me through which I attempt, when asked, to traverse using my best practices, within the “art of medicine” as dictated by Western medical traditions. Local health workers often prescribe tea brewed with medicinal plants. But I am often left feeling helpless. No diagnostic tests are readily available. Medical cabinets, supplied by the government’s Ministry of Health, are mostly empty. Treatment plans are reduced to informed guessing games, and in the absence of any symptoms of concern, I shy away from making prescriptions, opting instead to listen intently to the women’s struggles and concerns, and to learn about the tried and tested traditional remedies often used in such remote areas.

December 5, 2012. Roselia, a 15-year-old first-time mother, lives with her family in a large brick home on the hillside; a dusty, red pickup truck is parked outside. Roselia delivered her baby via C-section, though she is unsure why. She has been unable to breastfeed her three-week old infant. The formula she gives her, only an ounce a day mixed with water, is not enough to sustain life. Her baby appears profoundly malnourished. Even with the help of the *facilitadora* who speaks the local dialect, it is hard to communicate; the mother avoids eye contact, and her answers are monosyllabic. I

feel uncomfortable in her father's presence, hovering, clearly disturbed by us being there. Perhaps they have decided to let the baby die. The mobile clinic serving the area had already come by several times and advised Roselia to take her baby to the hospital, but she and her family have not followed suit. Like many others, they believe the hospital is a place where people go to die. They would rather the baby live or die at home, according to God's will. We advise Roselia on adequate nutrition for her newborn and urge her again to visit the hospital. We continue to check in with Roselia; her infant continues to grow, albeit very slowly. At 6 months of age, her baby is severely stunted.

In Guatemala, roughly 54% of children are chronically malnourished, with the country having the fourth highest rate in the world. Chronic malnourishment, measured as stunting, or small height-for-age, is a strong determinant of early mortality and adversity throughout a lifetime. In the indigenous communities where I work, the rate of chronic malnourishment reaches nearly 80%. Out of the 155 women who have given birth in these communities since I arrived, five have lost their newborn in the first month of life. Forcing families such as Roselia's to engage with the formal health sector places at risk the tenuous trust that many have of Western medicine. Because some families feel threatened by or reject Western concepts of health and illness, local health workers who have exerted such pressure to seek formal care have sometimes experienced violent repercussions.

Roselia's situation may be complex. Perhaps she did not want the child. Perhaps her family was ashamed by a pregnancy out of wedlock. Perhaps the situation could have been prevented with contraceptive options, but birth control is not readily available and when it is, many men oppose its use. Abortions are illegal. There are few effective social programs to provide much needed support.

I am aware of the global and national statistics on maternal and infant health and well versed in the Millennium Development Goals and the interventions considered most effective in reducing maternal and infant mortality. But despite impressive scientific and technological advances in global health interventions, many questions remain. How do these advances trickle down to individuals and communities such as those that I work with? Moreover, aside from addressing the problem of inequitable distribution and access to these resources, how do we navigate through diverging beliefs about life, health and illness, and through diverging preferences in health care utilization? How do we empower individuals and communities, including the most marginalized, to secure their health and well-being, and to be able to do so in harmony with their own beliefs and traditions?

After a decade working as a clinician, the diagnostic and treatment modalities once so familiar to me now seem abstract and foreign, as I struggle to find solutions that work for mothers in these Mayan communities. The little that can be done sometimes feels only like a Band-Aid solution to a much deeper and largely invisible wound plaguing the most

vulnerable. In Guatemala, rural indigenous populations, deeply scarred by years of civil war, remain entangled in a vicious cycle of food insecurity, extreme poverty, limited access to basic resources, dispossession and land loss, violence and marginalization. Systematic disempowerment of traditional, community-based health systems by the formal medical establishment further deprives poor, remote communities from the only health resources to which they may have access. A legacy of gender inequality further adds to existing cultural and linguistic barriers, leaving many women helpless in sustaining proper care for themselves and their infants.

What is a health practitioner to do when health and illness are as much, if not more, tied to socioeconomic, cultural, and infrastructural factors as they are to biomedical ones? The stories of Lucia and Roselia call us to take a humble approach to healing and care, one that combines a deep awareness of local realities, gentle trust-building, and a constant effort to link public health action to locally defined need and priorities. When our own knowledge, tools, and skills are lacking in their power to heal and fail to address underlying determinants of health, we, as global health practitioners, have a great deal to learn from local actors and realities. We ought to only proceed through open dialogue and through active and genuine engagement and collaboration with the very people we hope to heal.

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Adobe house in Mam-Mayan community.

Photo credit: Anne Marie Chomat

The Thrill is Back

By *Michael Clark*

More than halfway through a busy residency program in pediatrics, I signed a one-year contract to work as a medical officer at a district hospital in South Africa. In addition to my clinical responsibilities, I intended to carry out a research project on tuberculosis in young children. Within months of being there, I realized that I would never complete my research, as I became bogged down by clinical duties and in-house calls. Long hours in a hospital were nothing new, but it was hard because of all the unexpected horrors and injustices. It was even harder when I awakened one day, surrounded by pain and suffering, feeling like I was part of it. When I returned home, I became ill with depression and sought help. Here, I should quickly add that some of my closest friends and fondest memories come from that year. It was a life-changing experience. I believe an adventurous heart is required to embark on such a journey, but the true experience is not an adventure. It is a commitment, and the most important prerequisite for this commitment is a solid personal foundation. I had to learn this the hard way.

The reality of practicing medicine in a resource-poor setting takes a while to sink in. Before this year abroad, I had completed two electives at the same hospital, each only a month in duration. Encountering late presentations of illnesses I had only read about, more HIV and tuberculosis cases in one week than in ten years back home, and the opportunity to perform countless procedures made the previous experiences exciting. Working as a foreign medical officer – licensed under their authorities, receiving their wages, registered to pay taxes to their government – is a completely different experience. A heavy burden of disease, HIV/AIDS, and preventable death took the thrill away swiftly. At first I felt sick, and later, cold and numb, as we played God with ventilators (the HIV-negative child gets it). I struggled to remain motivated. It was challenging, but rewarding too at times. I remember smiles on the faces of children who once looked like skeletons, hugs from their parents, and the angelic voices of nurses singing at 7AM every morning.

There was one thing, however, that I was not at all prepared for: experiencing a horror and knowing it will return tomorrow and the next day. That feeling is nothing like reading about it or having a brief glimpse of it. Before my year abroad, I had fully assessed and managed only one childhood sexual assault, a seven year-old girl raped by two young adult males. This isolated experience did not prepare me at all for the phenomenon, or rather the epidemic, of childhood sexual abuse in South Africa. Sexual assault was a chief complaint in the pediatric outpatient department everyday. When I later reviewed the clinic register, I found my name scribbled beside six visits for alleged sexual assault in a single shift. On call, I would see them between admissions and emergencies, while managing children on ventilators. It was a horror. The belief that raping a virgin could cure HIV still circulated in some corners, and I did diagnose previously uninfected young girls with HIV, having acquired it from their uncle or neighbor. As I wondered why so many children were being raped, I only had enough energy to provide care the best I knew how and to not ask too many non-medical questions.

“Before we can take care of others, we must take care of ourselves.” Repeated attempts by my seniors to drill these words into my head had been unsuccessful. I needed to learn this lesson the hard way, through firsthand experience. My time in Africa was filled with the unexpected. I did not expect the excitement to fade into routine, or a daily horror of sexual abuse. I felt sad, guilty, and weak. One day, I jokingly told a colleague I was in need of an SSRI for depression. In a stoic yet understanding tone, he said he had been on one for years. He added that I looked pale and had been working too much. He was right. I had become obsessed with my job. I worked through it, transferring to a different position with fewer hours for the second half of my year there. Soon I began to see that depression, post-traumatic stress, and substance abuse were common problems among my colleagues. Overwhelming disease burden, perceived impotence in dealing with it, shocking inequity and violence, and the intense dilemma of “playing God” were taking their toll. I wanted to know what it felt like to be a resident there. Now I do.

I did not rid South Africa of HIV/AIDS, tuberculosis, or childhood sexual abuse, nor should I have expected to. However, my commitment to global health is now stronger than ever, and just as importantly, so am I. Rather than regret this experience, which came at a personal cost, I am grateful because it taught me an invaluable life lesson. Statistics from the World Health Organization and UNAIDS still paint a grim picture, but in it, I also see hope. A myriad of opportunities can arise from seemingly infinite need, for the student or trainee to learn new skills and help build capacity in resource-poor countries. I would encourage such initiatives at every turn, but always with a degree of caution. We must build solid, sustainable partnerships, setting forth objectives that benefit both learners and their hosts. Although it is impossible to guarantee, we should do our best to maximize safety and remain mindful of our limitations. Finally, let us

be respectful of our colleagues in other countries. I often reflect on the daily struggle I witnessed – their struggle – and remember that after I boarded my airplane home, they remained. A foundation of good health, realistic expectations, and empathy is vital, if we are to be effective partners in global health.

Michael Clark is a post-doctoral fellow at University of Ottawa.

The Voyeurism of Global Health

By Bayle Conrad

“We have visitors coming this afternoon.” I inwardly groaned hearing these words. In the weeks I had been interning as a global health graduate student at the HIV/AIDS pediatric care organization located in the Kibera informal settlement of Nairobi, Kenya, I had come to dread the arrival of tourists visiting the facility. The routine was the same during every visit. The visitors would arrive, the staff would greet them with a tour of the facility, and they would be taken to visit homes deep within Kibera. I had become used to the preparation surrounding these visits: the announcement at the beginning of the work day, the rearrangement of staff schedules to accommodate the visitors’ site tour, and the strategic discussion among social workers of which families in the slum to visit with our guests. A few weeks into my internship, the social workers began asking me to come along as they escorted visitors around Kibera. When I asked one of the social workers whether my presence as an additional white Westerner would cause greater disruption in the slum, she answered honestly, saying, “Please come. We don’t know what to say to them (the visitors).”

That comment stuck with me for the rest of my internship in Kibera. What do you say to foreigners, coming to visit a Nairobi slum in between their Kenyan safari and Mombasa beach vacation, shedding tears over tea in a tiny home where an HIV-positive woman lives with her four children? I found myself consistently annoyed by the presence of visitors and their disruption of daily work. But even more, I found myself disgusted at their voyeuristic presence because it reminded me of my own unease, the exploitation inherent in my observations in Kibera. I often felt uneasy just being in the slum, as though I had no right to be there, to see the people and their homes. While I was warmly accepted as a fellow coworker by the clinic staff, I knew that my existence there for a short summer had little measurable impact and was not necessarily needed by the organization, which hosted an endless rotation of Western interns. Even though I was a global health graduate student interested in working at the community level in East Africa, how different was my presence there from that of the visitors I scoffed at? I pondered this on my frequent

visits with clinic social workers to homes within the informal settlement. To residents of the area, was there a difference between me and any other Westerner coming to “tour” the infamous slum? Where was the line between “voyeur/exploitation” and “witness/experiencing”? When I asked my Kenyan coworkers this question, one replied by saying “It’s different. You are one of us.” When I responded by saying that I could just as easily be a fellow Westerner on a slum tour, my coworker gave me a confused look, replying, “But you aren’t. You are here, working beside us, teaching us as we teach you. You are not here to simply gaze.”

It is now months later, and I still have not shaken the unease I feel when thinking about the privileged voyeurism inherent in global health. As global health practitioners, we work in some of the worst, most impoverished conditions in the world. We spend our trips abroad observing these conditions and those who live in them, even in places we may not belong, and then have the privilege to leave once our projects are over. In my struggle to come to terms with this unease, I am reminded of what it has brought me. By remaining aware of my own position as a Westerner in Kenya, and the power and privilege inherent in such a position, I was better able to connect with coworkers, clients, and community members, much more than I would have by presenting myself as a Western “expert.” I was able to have several frank, critical discussions with coworkers in Kenya about the field of global health; its domination by young Westerners wanting to make a change in the world; and how it blurs the edges between voyeurism, aiding, and witnessing. These conversations became one of the most valuable aspects of my internship, and have altered the way I view myself and global health.

My experience working in Kibera threw me into an ethical conundrum that I had previously grappled with but had never felt so acutely. There is not much to differentiate myself from the constant stream of tourists at the clinic, other than a graduate degree in global health. In trying to find a solution to my unease as a global health practitioner and the power differentials inherent in the field, I have come to realize that there is little to no solution. My unease and discomfort will continue as I pursue a career in global health, and more importantly, *should* continue. This is the greatest realization I take away from my experience in Kibera. The blurry line between voyeurism as an outsider and observation as a global health practitioner will always remain because, in reality, my role encompasses both.

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The Outsider

By *Rebecca Cook*

Warning! To pursue an experience in global health is inevitably to become an outsider. By leaving your own racial and cultural training group and going to learn and serve in another, you are taking on a new identity. It is this experience of being the outsider that leads to some of the greatest self-growth, moral distress, and opportunities for change. How we handle it makes us who we are.

Growing up in Kenya, I was accustomed to the experience of being in the cultural and racial minority. Sometimes walking down dirt roads in rural areas, children would shout “Mzungu!” (White person!). Neither threatening nor personal, their call was simply an announcement that an outsider was walking through their neighborhood. Even my close childhood friends found my hair and freckles fascinating, just as I thought it was odd that they didn’t seem to get sunburned in the hot equatorial sun.

As I spend more time in the United States for training, this “outsider” identity adds more layers and complexities. It’s no longer just the difference in skin color, language or accent; now I must grapple with the reality of coming from different training experiences, standards of medical care, professional cultures, privileges, and resources.

Returning to Kenya as a college student to do summer research and again on clinical rotations in medical school, I often found myself in the uncomfortable position of patients and families assuming that I was the most educated or qualified member of the team, when in fact the opposite was the case. My colleagues were incredibly gracious with these misunderstandings, but much vigilance was also required on my part to work in clearly established roles and stay within my scope of training even in settings when there was less supervision.

More recently, rotating as a resident on the medicine wards of a teaching hospital in Uganda, I have found this outsider identity becomes even more challenging the more advanced I am in my clinical and professional training. I could not have asked for a more accommodating group of Ugandan faculty, residents and medical students; yet the vast gap in resource availability and differences in medical systems made it impossible to

ignore my outsider status. Watching a previously healthy adolescent girl progressively decline in hypoxemic respiratory failure from a likely reversible pneumonia simply because there was no oxygen that day, I felt alone in my urgency and desperation. One of my Ugandan colleagues said, “You seem angry.” I was horrified. Knowing from my experience growing up in Kenya that anger is a grave cultural offense, I quickly apologized and explained I was not angry at anyone but rather frustrated and sad at the harsh reality that this girl may not survive. In that moment I realized that while my perspective as an outsider on what medical care should be available was not wrong, my indignation at the inequity of health resources and inefficiency of systems could easily be misinterpreted as anger at the individuals who worked there.

Based on these experiences I developed a “code” to help guide my interactions as an outsider during global health rotations:

- I will never undermine a local provider in front of a patient/peer.
- I will approach points of clinical disagreement with humility and an eagerness to learn.
- If I am concerned about the clinical judgment of another provider, I will *ask* a question, and only directly intervene when there is a risk of immediate and serious harm to the patient.
- When in doubt, I will *ask* ... and if no one at my site can provide a satisfactory answer I will seek information from outside experts.
- I will *not* perform procedures alone that would require supervision at my own institution.
- I will *not* handle medical emergencies by myself and I will not be the team leader in emergencies.
- I will defer all final decisions about referral, payment, discharge plans to local clinic leadership.

The most interesting thing about the experience of being the outsider in global health is that you ultimately return to your “home” and find you are an outsider there as well. The experiences you have and the relationships you form have made you a different healer and a different person. Immediately after return you experience “reverse culture shock” – suddenly there is an obscene number of cereals in the grocery store and incredible waste in the hospital. Yet even after the initial shock fades, you will discover you have been changed in more profound ways. It is almost impossible to return to practice without a deeper awareness of systems and resources. You will rely more on your history and exam, you will assess whether the diagnostics you are considering are really necessary, and when you do order tests or treatments, you will be grateful that they are available.

You will have more understanding for the “difficult” patients and families – those who require multiple interpreters, or those who have a different set of priorities or values than your Western medical agenda.

There is no question about it. Being an outsider, while challenging at times, changes you. Multiple studies have found that trainees who spend time abroad are more likely to go into primary care and work in underserved communities. Now consider an even more important question - how might it change someone else? Even in the current economic climate where funding for global health programs in our own graduate medical education is threatened, can we really say we are travelling internationally to pursue global health equity and ignore the unequal training opportunities for our colleagues? If the experience of being an outsider has so many positive effects on our personal and professional growth, what impacts might these experiences have on retention and systems improvement in low resource settings? Are not our East African colleagues equally entitled to the experience of being the outsider?

Rebecca Cook was born in Kenya and received her undergraduate degree at Wake Forest University. She has a master's degree from Oxford University and attended the Vanderbilt School of Medicine. She is currently a Med-Peds resident at Massachusetts General Hospital.

An Interesting Clinical Finding

By Siddhartha Dante

Year 1. "Lub-woosh-dub, lub-woosh-dub, lub-woosh-dub ..."

I raised my stethoscope and searched anxiously for my clinic preceptor. I found him outside, bundled up for the cold, looking out over the picturesque Andean valley. He always left the room when his medical student examined the patient – later I would learn it as a technique to let students gain confidence in their exam skills.

The sound was a heart murmur, so loud that it was obvious even to my second year medical student untrained ears – the ‘woosh’ occupying the space between the heart beats as we listened again and again suggested a Ventricular Septal Defect (VSD). My 9 year-old patient was sitting with her mother when we returned, with her jacket back on to protect from the cold as it was not much warmer inside. Her mother knew about the murmur; it was identified at birth and referred for follow-up. As her daughter had grown well, the follow-up had never happened. But with the Americans now here and her daughter quickly becoming comfortable with us – playing in our crafts sessions, asking us questions over meals, dancing during the traditional festival, adopting our undergraduate students as big sisters – asking the American doctor for a checkup at our free clinic was easy to do. With our exam and working diagnosis, we explained and reinforced the need for her to have follow-up with the imaging tests that could only be done in a hospital and the requisite evaluation by a cardiologist.

Year 2. "Lub-woosh-dub, lub-woosh-dub, lub-woosh-dub ..."

The murmur was still there. This time I could compare it to what I had heard during my student rotations – it was not like the atrial valve regurgitation I had heard the week prior on an adult during my medicine clerkship or the machine-like murmur of the patent ductus arteriosus in a newborn I heard on pediatrics the previous fall. This murmur was different and I could hear why we knew it was a VSD.

But no, she and her mother had not traveled to the nearest city to seek evaluation at the state hospital. They knew it was important but the obstacles were challenging – the

distance, the time away from the fields, the waitlist at the clinic – and she was still growing and seemed healthy. But yes, they were concerned. She had less energy and she was not keeping up with the other kids – signs that perhaps her murmur was beginning to affect her. She needed an echocardiogram and an expert opinion.

Year 3. “Lub-woosh-dub, lub-woosh-dub, lub-woosh-dub ...”

She smiled as our routine was familiar. I listened, more confident now. My residency match results would come the following week and seeing patients in the remote Andean clinic was a welcome tonic for my nerves. I had read the report – the VSD was small, less than 2 mm and fortunately unlikely to cause her long term problems.

After returning from my second trip, we scoured the internet and sent emails across the US and Peru. We were able to arrange for her and her parents to travel to Lima, get an echocardiogram, meet with a pediatric cardiologist, and return in the course of three days. We paid for their trip, their stay and even supplies for their home that were only available in Lima. My preceptor and I had partnered to transform our initially simple medical and educational trip into a global health group that was incorporated with non-profit status, formalizing our work with this town and health post. The check reimbursing our Peruvian partners for her trip and medical evaluation was the first I wrote in my role as Treasurer.

Year 4. “Lub-woosh-dub, lub-woosh-dub, lub-woosh-dub ...”

I recognized her immediately but was taken aback – we were 3 hours down the mountain at a school running a clinic in one of the far-flung towns in the health post’s district. She was a teenager this visit – more reticent, but she let me listen and let me teach. I was a doctor and had survived my intern year of early wake ups and an incessant pager. This time, there were medical students listening to me. I quizzed the students on the inverse relationship of murmur intensity and the size – the answer: the smaller the murmur the louder it can be.

Afterwards, I sat and asked her about school, how her brother was, and why she was in this town. Her family had moved in search of new jobs in the summer and she was in school here, but they still returned to the town up the mountain for the winter and harvest. Her friends called for her as our clinic was wrapping up. I extended greetings to her family; she smiled and shyly left to join her friends.

What could have simply been an interesting clinical finding on a one-time trip has, through commitment and persistence, become a profound lesson of systems and care. The girl has become my longest standing continuity patient in my short medical career and her care taught me about the external factors in healthcare both globally and locally. I could know the pathophysiology of her disease, learn to write prescriptions, or provide

the proper instructions, but still not affect the desired health outcome. My approach has to broaden from just learning the skills to diagnose and prescribe to include the know-how to build effective systems of care and eliminate barriers. My next trip to Peru will continue to involve the personal connections in clinic but will also include strengthening our partnership with the community and local physicians. Our next patient that needs a referral will not need to wait two years for care.

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An isolated village at 10,000 feet in the Cordillera Negra.

Photo Credit: Siddhartha Dante

Hauntings

By *Mark Darby*

In my career as student, I am haunted. Haunted by my trips to Rio De Janiero or to Santiago De Los Caballeros, Dominican Republic. The experiences which seem neatly packed away in Facebook postings suddenly come full and alive to change the way I work. For example ...

1. I sit in a neighborhood health clinic with a small sign informing passers-by that we offer free STD screenings. It is a busy clinic. As we wait for the results of the rapid HIV, a 13 year old boy tells me he stopped playing basketball because he doesn't want to "spread AIDS by sweating on people." I want to chuckle.

Then I remember the favelas. Buildings built with red bricks crowding the hillsides overlooking Rio's beaches. On first glance, the buildings look like shanties, poorly constructed without electricity or water. Then I went into one of the homes, built by hand by a man with a name. He has built his family a home out of nothing. Pride does not come with readymade doors from Home Depot. He teaches me that in every situation there is always something worthy of respect.

So I imagine this young man's perspective. He is someone who cares enough to give up something he loves to save his friends. In that light, we speak of his sexual encounters, condoms, his desire now to be abstinent, and how AIDS is spread.

2. I say *hola* to the woman who cleans the bathrooms in my workplace. She is patient with my Spanish. One day she tells me that the hospital used her 10 year old to translate when she had an allergic reaction to her last dose of chemo. I am embarrassed that my Spanish is so poor I did not even know she had breast cancer.

Then I remember the first Spanish school I attended in Santiago. I struggled to learn nouns and verbs. The teacher looks like Erik Estrada and speaks very little English in class. I am glad that at least one other person has trouble with a foreign language. I want

to go to with the others to experience the local beers rather than work in the language lab. Professor Estrada seems to understand and says in perfect English, "Don't let your fear of inefficiency prevent you from developing your effectiveness." Rather than being further embarrassed, I study. I become if not an expert than certainly better.

So I forgo my embarrassment and speak to this woman about her treatment, which is lacking. She says she needs help but is fearful. I teach her to assertively ask for changes in her care. She asks me to attend her chemo sessions, which I do. I resist urges to step in when she questions the doctors and watch her grow in self sufficiency.

3. I am part of a group of experts that want to address the issues behind a mass shooting at a shopping mall. The group brainstorms very traditional answers that have been tried before. A suggestion to hold local meetings and listen to community members is met with skepticism.

Then I remember sitting in a Rio classroom for a lecture on urban architecture from an animated Brazilian professor. He shows a picture of Rio from the ocean with its beautiful beaches and shimmering hotels. Going three miles inland, he shows us the same picture from the other side. Behind the hotels, are densely crowded favelas populated with talented people busy making a living. "It is safe looking from the Ocean," he says. "In order to know the real Rio you have to stand where the people live and look around."

So I agree to work with a group that goes to where people live. We hold community conversations—in churches, homes and schools. We have hundreds of conversations. Change occurs. A new employment office with trained and friendly staff, programs for youth held where kids are living, and more relationships across racial and ethnic lines are built that did not exist before the shooting.

4. I attend an extracurricular activity on how narrative can improve how I care for patients. The teacher says that writing a poem can increase self-reflection, and clarify goals and values. We are asked to recall a meaningful story and write a poem.

Then I remember a retired teacher who volunteered with young mothers in a Rio favela. I recall one particular door and I write this:

The door had breathed its last yet a
wire still crucified the door to a post

Knobby mulato hand, fingering a pen, pounded the door,
causing
a groan from wire and door.

Pounding woman yells “Criaaaaaaçaaaaaa Pastoralllllll”
Portuguese vowel sounds echo over door to exhausted
window and wall
Would the worn streets awaken and attack me, the
American-protected only by a bony Brazilian teacher?

As we wait, the teacher says, “Pastoral da Criança (Pastoral
Care of Children)
Help mothers and young children
With information, food and love

A woman’s face appears
“Anna Louis” yells the teacher,
Teacher and mother skitter like two squirrels

To business
Child is eating, gaining weight. Going to school, reading,
being active
Very much unlike other children I have seen

The teacher and I say good bye,
As we go down the crumbling street the mother waves to
us, one hand on sagging door.

So now as I think of my future career, I am haunted by this poem. Because I wanted a feel good ending I left out the other child. I had not written of the developmentally delayed 5 year-old that only wore diapers and crawled. He was not enrolled in Pastoral da Criança. Two children two blocks apart and the only difference was a dainty retired teacher who worked in their neighborhood.

I finally learn my most important lesson. Healthcare, whether global or local, occurs not in large buildings and laboratories but in homes and neighborhoods where the sick live and need care.

Mark Darby is in the Family Nurse Practitioner Program at the University of Nebraska Medical Center in Omaha, Nebraska.

Moving Forward

By *Danielle Dougherty*

The five women in my car laughed and chattered in Setswana as I drove through their village in Northwestern Botswana. I had just picked them up from the outskirts of town where they had spent the day in the hot sun interviewing other women about domestic violence. Despite the long day of trudging through the sand and talking about rape and abuse, they cheerfully asked to stop by the river, where they helped me splash water on my muddy car. I adored these women and although I knew the stipend I was giving them was tempting, it was moments like our impromptu river car-washing session that made me believe that they cared about much more than the money. I was convinced that they were passionate about the issue of domestic abuse in their culture. Whenever I think of my team of five interviewers laughing and washing my car by the river, I wish that we could empower every woman to be as independent, strong, and zealous as them.

The project this summer lasted seven weeks and was implemented in collaboration with a local organization supporting women who had been raped. It was the same organization where I had served as a Peace Corps Volunteer years earlier and still remained in close contact with. After every long day of interviewing, the five ladies often came back with terrible stories, filling the margins of the questionnaire with horrendous anecdotes that often left me feeling hopeless. As a safety precaution, American Institutional Review Board ethics requires that the subjects remain de-identified, and although every interviewee was informed of resources to seek help from at the end of every interview, we always worried about the fate of each participant. Our hope was that by trusting us and being willing to open up, the interviewees would provide statistics that would help identify risk factors to help the local organization with its programming and potentially result in policy change that could increase access to assistance and protection services. But at the end of each day, the women we interviewed still went back into their often-abusive homes.

I frequently wondered if what we were doing was far removed from the actual problem, but my interviewers assured me otherwise. The oldest interviewer on the team

of five, who I will refer to as H, was also the most diligent worker. She worried about the women she had surveyed and followed up to make sure the organization's counselors had visited the ones who had asked for assistance. H was a self-sufficient woman, raising several nieces and nephews on her own, crafting and selling homemade jewelry, and was proudly independent. She was always the first to arrive at the office in the morning, often before I did. When two of the other tired interviewers started complaining about the work and appeared irritated when I requested them to do something, I heard H, as the respected elder, address them in Setswana. "Be considerate of her," she said, referring to me. "Answer her nicely." And they did. She believed in our project because she cared deeply about this issue and wanted to make a change.

By the end of the summer, we collected more surveys than I had expected. I gave the women more money than I had originally agreed to, and I wrote them all letters of reference and promised to hire them again the next time I made it back to Botswana. I went home determined to quickly finish the data entry, get the statistics back to the local organization, identify the risk factors, and work on program implementation. I wanted this research to make a difference.

But plans change in unexpected ways. I got caught up in my second year of medical school. I wasn't thinking so much about violence against women in Botswana when I received a terrible phone call in October that abruptly thrust me back into the anxious mindset of the issue. The friend who called tearfully told me that H had been killed by her ex-boyfriend late the previous night. H became a victim of the very issue she worked so diligently against. How could this happen to such a strong and independent woman? I thought we were trying to change policy for the women who didn't have resources, who were stuck, who were helpless, who didn't know there was another way. But I was wrong. It could happen to anyone. At the funeral service, the speaker talked about how much H cherished her participation in our research project and saw it as a way for her to "move forward."

I still see H as an empowered woman who continues to make a difference. Despite any cruelty she suffered in her own life, she worked endlessly toward ending it for others in the future. I hope that the data she helped me collect will help the collaborating organization to influence policy change and shed more light on the situation of rampant gender-based violence. But more importantly, I hope that every woman who participated, whether interviewer or interviewee, uses this experience to move forward in her own life, just as H always aimed to do.

H had lived a good life working hard, inspiring others, and taking each day in stride despite any setbacks. Her passing made me briefly feel hopeless about the situation of violence against women, but I believe the strength of the women in the village will turn tragic emotion into power and change. I think back to the interviewers laughing and

teasing and carrying water from the river to wash my car, even after a long day in the sun tirelessly writing down stories about abuse. It reminds me that we must continue to plough ahead and aim for change, and this is possible with a strong group of women, like the ones in my interviewing team, who demonstrate such hard work, such solidarity, and such drive to always move forward towards a better life.

Danielle Dougherty is a medical student at University of Michigan.

Learning to Listen: A Reflection on Global Health in the United States

By Erica Mukai Faria

Swinging on a hammock at a typical university-students home in southern Brazil, I can hear the excitement of my friends chattering around the samba drum that is also a coffee table. While shaking canisters of rice and tapping knives on plates, they talk about the country's future with a rhythm that is uniquely and decidedly Brazilian. As I listen to their hopes and frustrations, their strategies to gather, energize, and persevere in the work ahead, I realize that their struggle is nourished by a fierce love for the place they call home and the people who live there.

Two months before I was born in the State of São Paulo, universal and equal access to healthcare was enshrined as a citizen's right by the Brazilian Constitution of 1988. Around the same time that my family moved to the United States, Brazilian municipalities began offering comprehensive healthcare through a decentralized model with community clinics and lay health workers. While my mother faced numerous logistical and financial barriers trying to get me vaccinated for school in New Jersey, my cousins in rural Brazil, some of whom were raised without electricity or running water, obtained vaccinations for free with a visit to the nearest health post. Even today, despite strides made by the Affordable Care Act, millions of low-income Americans are left uninsured and at risk for poor health outcomes. It reminds me how much we can learn from other countries where healthcare is defended as a human right.

Global does not mean foreign. If one of the tenets of global health is to provide equity for disenfranchised people, I wonder how we can reevaluate national policies that incriminate behaviors of our most fragile populations? Earlier this year, I helped facilitate a women's health course at a jail in Philadelphia. When I led a class on non-violent communication, I was moved by a simple partner exercise in which one person shared a story for five minutes and the other person listened. After the listener repeated back what they heard, the person who shared often began to cry. The world we live in is so loud that when we take the time to really listen to each other, we heal each other.

American students and educators committed to global health can listen to the cries in our own backyard. We can stand up for underinsured citizens, poor families, women's bodies, veterans, elderly people, folks trapped in dangerous cities or isolated in rural America— these are our neighbors and our friends. Remembering that America is a country of immigrants, we can brainstorm ways to be better listeners to the 60 million people in the United States who speak a language other than English at home. As global health advocates, we can speak up for the voiceless victims of environmental injustice and discuss candidly the role we play in climate change. As global health scholars, we can initiate conversations about doing research with vulnerable populations rather than on them.

As the Global Health Ambassador at my school, I've been trying to encourage honest conversations among students who plan to go abroad for their cultural learning experience. My hope is that there are more discussions about the privilege of being able to leave home, to travel, and to be welcomed into cultures that are not our own. When we go abroad, I hope we share what we have in a lasting way and bring back all that we have learned. Above all else, I hope that global health advocates earn a reputation of being good listeners.

Sustainable work is fueled by efforts that encourage and invigorate! One such effort that inspires me is the training of community health workers across the United States. Programs modeled from developing countries have reduced health disparities among refugees, rural communities, and people with chronic disease. I also admire the nurses from the United States and Canada who marched across the Golden Gate Bridge last summer in protest of the Keystone XL Pipeline. By speaking up for the hundreds of communities across North America affected by poisoned water systems, they advocated for the wellness of our planet and all the creatures that live in it. It was global health in action.

We want the things we love to be their best, so we work on bettering them. Every now and then, I think about my friends in southern Brazil, gathered around the coffee table that is also a samba drum, discussing how to make their country better. I think about the systems in the United States that I want to be better so that we can make more people better. If we put in the work to make home a better place, our work elsewhere will be meaningful too.

Erica Mukai Faria (BS, BSN) is the Global Health Ambassador at-Large at the University of Pennsylvania School of Nursing. She is also a member of Put People First! PA.

The Love Thing

By *Susan Folsom*

I've always loved to sing. When I arrived in Romania to begin my volunteer internship at a children's hospital, I couldn't keep my music inside of me. I was singing from every particle of my body. Cobble stone, ancient monasteries, gypsies, trains, remnants of history that I'd only ever encountered in books. I was in Europe. I was in Romania. I was sure that I was going to change the world.

Then I saw poverty, but I didn't understand it. I saw illness, but I didn't comprehend what that meant in this new place. People approached sickness differently here. I encountered hardened souls and bitter memories. It was hot. The hospital looked and smelled like something out of a horror film. In America, falling ill was usually an inconvenience. In Romania, it was a matter of life or death. Sometimes coming to the hospital was a death sentence.

We were commissioned to help care for abandoned children at the hospital. It was a product of communism, one book told me. Someone else said it was because of people's poverty. Whatever the cause, every children's hospital in the country had its fair share of orphans. "Copii fura mama (children without mothers)," is how we were told to refer to them.

Soon, without even realizing that it had happened, I stopped singing. I couldn't any more. Children without mothers didn't have a chance here. The nurses were overworked. They had more patients and longer hours than humanly possible to manage. Together, we watched children die every day.

One day there was a baby with hydrocephalus. I'd read about this in one of my neuroscience textbooks. It was usually a pretty simple fix, if caught early. But this was a baby without a mother. So we changed their diaper, watched their head swell, and waited for the day when the nurses said the room no longer had any, "Copii fura mama."

Too many sweaty rooms, packed with children, some groaning, others screaming, others just staring blankly at the ceiling they stared at every day, all day. It was loud,

but my soul was quiet. All I was good for any more was changing diapers and waiting until the beds were empty again.

I liked the ICU. It was different there. Most of the children were small, still babies or toddlers. They were too sick to groan or scream. They were too sick for us to even change their diapers. I knew there was very little we could do there, but it was quiet. It matched my soul. I needed quiet.

One day, one of my favorite babies from the cardio wing was in the ICU. She didn't have a name. She was a baby without a mother, but her sweet, scrunchy little face and wild hair earned her the name, "peanut baby." Looking back, I don't know if it was really all that fitting, but my mom always called tiny babies "peanuts." So she was peanut baby.

That day, in the ICU with peanut baby, was the first day I sang again. It was a quiet place so my voice was different. It wasn't belting show-tunes or singing along with the radio. It was a different kind of singing. It was a children's hymn. I didn't know any songs in Romanian yet, so I sang quietly in English. My friend who was holding the hand of a baby in a nearby bed joined in with harmony. Our voices resonated through the quiet wing. We weren't singing loudly, but I'm sure you could hear us all the way down the hall. We finished the song and it was quiet again, except for the soft weeping of a mother sitting on the bed next to us, holding her baby. For the first time I looked at her baby and realized her baby was dying, too. Even babies with mothers often died. She whispered, "Multumesc (Thank you)." We smiled, I kissed peanut baby's head, squeezed the mother's hand, and proceeded to the next floor.

After that day, things changed. I couldn't do much, but I could sing. I could smile. I played tag with the kids from the 7th floor. I played cards with the ones confined to a bed. We began having games of catch between the 6 beds in the room on the 5th floor. The parents there would often join in. We laughed, we taught them some English, they taught us some Romanian. I learned Romanian songs and sang them often.

People often asked how I felt about my experience in Romania. At first I couldn't bear the thought of trying to encapsulate what had happened that summer into a few trite words. "It was great, I loved it," just didn't seem appropriate when one considers what we saw everyday. We saw horrors. We watched helplessly as children died from diseases I knew were treatable under better circumstances. But when I began to sing again, I knew it wasn't what I couldn't do that mattered. I realized that I may never have the resources or knowledge to help everyone, but I could always, and forever will, give love.

Susan Folsom is a second year medical student and Air Force HPSP scholar at the University of Utah in Salt Lake City.

Political Bodies: A Charitable, Unjust World

By *Shiyam Galyon*

I didn't think, at age 17, while hugging my Syrian grandmother goodbye, that the next time I would enter Syria would be at age 22 and through a refugee camp. I travelled there this past March to work on a humanitarian relief project and to make connections with workers on the ground; the journey was as much personal as it was work-related. Those five days marked a change in how I understood international power relations, the political nature of human existence within a state, and the construction of privilege.

For the first year of the Syrian revolution, I watched, powerless. I was the only Syrian-American in my social circles and didn't have a support network. In hindsight, I should have immediately sought out a support network, a team, to keep up with the news and work on projects together. The first step to being politically active is joining the conversation, but finding the American conversation on Syria was difficult. There would be no mainstream conversation to join until Obama was forced to act on his Red Line policy in August 2013.

Eventually, after months of asking around, I connected with an activist online. She in turn connected me with other activists on Facebook, and a few months later, 17 of us planned a relief project to deliver aid inside Syria. In a little over one week, we were able to fund-raise \$105,000 online with Syrian Sunrise Foundation, a registered non-profit. At the Syrian-Turkish border, we partnered with another NGO to help us allocate our money, mostly towards food baskets and one development project.

The Syrian borders are congested with tents. I saw more refugee camps than I can name. Refugee camps are spontaneous cities that emerge without an infrastructure or economy whose residents are more or less impoverished. We invested money towards a sewer to prevent the spread of water-borne diseases. Driving through the various refugee camps, you will see the occasional UNHCR-stamped tent. It's bewildering how the UN has invested time, money, and media to raise the alarm about the refugee crisis while members of its Security Council protect Bashar al Assad from being sent to the International Criminal Court: we live in a world that will hand out charity but withhold justice.

At the refugee camp, I played with the children and spoke with the women, and was ashamed that I could not offer more than just my company and promises to write about them in the media (which I later fulfilled in an online photo story and article). With just my Biology degree, I was unskilled and couldn't offer something useful, like medical care. Everyone knew we had travelled long distances to be there and expected us to be powerful or influential people. My taking up their airspace only benefitted us, the North Americans, who wanted to ensure the honesty of the relief delivery system. In a way, it was like walking in on domestic violence ... and just watching and handing the victim a blanket instead of calling the police.

Americans feel a disconnect with Syria because the Obama administration sidelined the issue and made Syria appear irrelevant to the average American. Many Americans forget that the United States has a seat on the UN Security Council which is blocking political justice for Syrians. When the August 21 sarin gas attacks happened, Obama abdicated his responsibility as commander in chief to the uninformed, indifferent American population. Suddenly, Syria was relevant, and a frenzy ensued as 300 million people tried to catch up on 2.5 years of revolution in 2.5 weeks. They failed.

Children, who are simple and innocent by nature, speak of death in Syria. One million of Syria's refugees are children while five million are in desperate need of assistance according to UNICEF. The UN estimates 1 million people are at risk of starvation. Nine million Syrians have lost their homes, and everyone has a story about death. "We were walking in a protest and both my cousins on either side of me fell to the ground, shot dead by a sniper," a relief worker told me. Conservative estimates say 191,000 people have died in Syria, and hundreds of thousands more are missing or are being tortured in detention. The residents of opposition strongholds of Ghouta, Moadamiyah, Yarmouk Palestinian camp, and Douma are imprisoned in their own neighborhoods by the Assad regime's medieval siege policy — no food, water, or medicine goes in and no one gets out. As of this writing, Yarmouk Refugee Camp has been without water for 14 days.

Individual health within the state is to certain degrees at the mercy of state policy, a reality that is evident to absolute extremes in Syria. The Assad regime responded to populist demands for reform with disproportionate force, as many Youtube videos of bleeding and dead civilians will attest. When the people persisted, the regime escalated, bombing bakeries, hospitals, schools, and homes, destroying Syria in an effort to save its rule. Lack of food takes its toll on the body while bombs take their toll on the mind. When the regime drops SCUD missiles, TNT barrels, thermal bombs, and cluster bombs, they always seem to land on civilians and never on Al Qaeda-affiliated groups fighting to control parts of the country. Yet it's the Al Qaeda groups, much like roadkill, who generate morbid fascination thanks to a decade of fear-mongering from the Bush administration in its fallacious post-9/11 "Global War on Terror."

On my third night in Syria, I slept under rocket shelling in Kafranbel. On my fourth day, I had a nervous breakdown in Aleppo. Everybody I met was wounded in some way by the war, and open to sharing their stories. And every young child reminded me of my cousins, every young man of my uncles, and every old woman of my grandmother, all of whom were a few cities away and inaccessible to me. These moments added to the well of emotional distress I carry privately with me to this day.

In America, I would write op-eds, organize political and educational events, and donate money to Syria, but it didn't stop the violence. I became acutely aware of "first-world culture" and our privileges as American citizens. I realized how two groups I used to be apart of, the "do-good" and "life-enthusiast" sub-cultures, are failed attempts by the privileged to both "save the world" and grasp the full extent of "living." Furthermore, the "radical activism" sub-culture has its own problems practicing the very ideas they preach, particularly in recognizing intersectionality and creating safe spaces (many advocates for Syria have initially been shunned by the political Left due to the latter's inability to accept that another entity besides the US could damage a Middle Eastern country). Deconstructing privilege, pushing past our isolationist xenophobia, and developing an intersectional view of the human condition will be necessary to grasp as we strive for a more balanced world.

As I began to see how political structures create and perpetuate violence, I quietly committed myself to becoming a doctor. There is a chance that by the time I'm a practicing doctor, the violence in Syria will have stopped. But unless a major shift in political and social values occurs, there will continue to be casualties at the intersection of health and human rights.

Shiyam Galyon was born in Houston Texas and attended school at The University of Texas at Austin. She's currently the President of the Houston Chapter of the Syrian American Council, a non-profit pro-democracy advocacy group, and hopes to attend medical school in the future.



Syrian NGOs, who often partner with international organizations, deliver food bags filled with staples to IDPs and vulnerable families inside Syria. The UN's Office of Coordination of Humanitarian Affairs is \$5 billion underfunded for Syria, despite estimates that 10.8 million people are in need of humanitarian assistance.

Photo credit: Shiyam Galyon

An Unexpected Journey

By *Samantha Gammel*

December 26, 2004.

A word was re-introduced into vocabulary and languages around the world. For most, the word simply means “a large wave of water.” For those in a small fishing village in Sri Lanka and thousands of others like it in southeast Asia, the word inspires terror, fear, and death.

Tsunami.

A word that changed the lives of millions of people, mine included.

The 2004 Christmas season began just the way we had planned. My friends and I were at our families’ houses in Texas after holiday celebrations eagerly anticipating the New Year and all it would hold. None of us imagined how our lives would suddenly change the following Sunday morning. A massive 9.0 earthquake in the Indian Ocean occurred off the west coast of Indonesia. The earthquake induced a massive wave that affected eleven countries. Initial news reports suggested the death toll could reach 150,000 people. This figure eventually doubled. It soon became apparent that this was no ordinary natural disaster, but something much greater, more powerful, and much more devastating.

Three days later, through our local church, we decided to respond to the disaster in Sri Lanka. Immediately, volunteers began working around the clock mobilizing resources, money, and people to respond to the needs of those we would encounter. Everyone contributed what he or she could. Teachers wrote curricula for the children who were no longer able to attend school. Construction workers, businessmen, and medical personnel offered their expertise. Counselors gave their talents to help relief teams better understand the situations and emotions we would experience. Others gathered supplies, packed crates, and did whatever else was necessary to ensure we were prepared.

On January 1, we left for what was planned to be ten days of relief work in Sri Lanka. We didn’t know exactly where we were going or what we would be doing, but we

went to offer whatever aid we could to those who were desperately in need. A few days later, we reached a small coastal town in the southwest that suffered much damage and lost many people to the deadly wave. For days we immersed ourselves in projects ranging from helping people clean their homes to picking up trash along beaches and roads.

Soon we were led to a small fishing village. At the entrance, a grave was being dug for a member of the village who died in the tsunami. Her husband found her in a lagoon six days after the tsunami and was preparing to bury her and their first child, with whom she was six months pregnant. One of our team members helped him bury his wife and unborn child before we entered the village for the first time.

Beyond this new grave stood four cement buildings, which now served as temporary housing for displaced people. The buildings stood directly behind their old village, which had been completely destroyed by the tsunami. All that remained were piles of bricks that served as reminders of the life that once was.

The need was great, and we did what little we could. We distributed kerosene stoves, cutting boards, pots, and other essential kitchen supplies. Medical staff assessed the physical status of the people and dispensed first-aid kits. Small construction projects began, including fixing doors, building shelves, and installing a community laundry line and a much desired volleyball court.

Perhaps the most significant contribution, however, was establishing a daily school for the children in the village complete with curricula, coloring, dramas, exercises, songs, and puppet shows. The school brought life to the children and many of the parents commented that this was the first time they had seen their children smile since the tsunami. More than anything else, the school gave us access to the hearts of the people. We gained their trust as we played, taught, and spent time with their children. Soon we found ourselves in their homes drinking tea and listening to them share about their lives before the tsunami. They spoke of where they were when they heard the wave coming and how they climbed the coconut trees and held on as the water raged underneath them. They cried and told us about those from the village who were lost. Through sharing in their fellowship, we soon learned they were just like us, people who were hurting, people who just needed to be heard and loved.

Our hearts broke for them. We knew our resources and words of sympathy were limited. And more than anything tangible we could offer them, we wanted them to be restored. As we questioned what we had to offer these people who had lost everything, what hope we could possibly give them, a local architect told us, "If you really want to see them restored, you have to build them homes."

And so it began. We again had to adapt our initial plans. What began as a week of relief work turned into four years of rebuilding. We moved to Sri Lanka and helped build 85 homes with these people we had come to love. The village was relocated away from

the ocean, away from the memories that still caused fear and sleepless nights. Nine years later, the people, and their homes, are still there and continue to remain in our hearts.



Completed Sri Lankan village rebuilt after the 2004 tsunami.

Photo credit: Samantha Gammel

I never imagined I would live in Asia or do something of such personal significance. But I saw a need and responded. I was asked, and I said yes. The best things that have happened to me have been things I didn't plan. They made me the person I am now and led me to where I am. I am thankful my plans were interrupted that holiday season. And I look forward to many more interruptions as I work to gain new skills to be of better service to those I encounter.



Gammel shares a laugh with Sri Lankan children.

Photo credit: Samantha Gammel

Samantha Gammel is pursuing a Master's of Physician Assistant Studies at University of Texas Medical Branch, Galveston, Texas.

Life Portrait

By *Thomas Golden*

The surgeon grasps his patient's hand and pulls it to his chest. His patient lies on the blood-soaked operating table beneath lights that illuminate every painful detail of the open gash stretching from her forehead to her cheek. She pays no notice to the blood pouring out of her wound, or the nurses hurriedly preparing suturing material. The moment in which her fingers interlocked with the surgeon's, her eyes widen in cold horror and fix on his unwavering gaze. In a strong whisper of Chilean Spanish, he delivers the world-shattering news that the woman feared most: "Your daughter is gone." These words hang in the air, momentarily taunting the mother as she processes the meaning and finality of the statement. In what is certainly a more visceral reaction than a conscious decision, she screams with the pain only a mother can know. The surgeon holds tightly onto her flailing hand. I hear her cries. I retreat within myself, and I do not wish to ever come out.

This time, the patient takes my hand. This time, dim light from a single bulb traces a heavily lined face that is free from any visible gashes or scars. The deceptive stillness of an urban slum in Peru has replaced the chaos of the Chilean operating theater, yet similar emotions permeate the lean-to made of corrugated iron in which we sit. The external calm masks the storm raging within the woman whose hand I now hold. I see no terror in her eyes, only resolute determination. She makes one request of me in exchange for sharing her story, an account of her unfaithful husband who infected her and their unborn son with HIV before abandoning the family: "When you become a doctor, do what you can to help. Not for me, but for the children. I have hope that my son and others like him will lead a normal life. Please, do not forget us." I look from her to the toddler sitting on her lap. He smiles, too young to understand the conversation. This time, I do not retreat. This time, I feel my own storm brewing within, calling me to act.

These memories sealed themselves in the deepest confines of my consciousness several years ago, during a summer in which I retraced the path of the young medical student Ernesto "Che" Guevara, a path detailed in his memoir *The Motorcycle Diaries*. Throughout

his travels, Ernesto Guevara witnessed systemic exploitation and disparity, which prompted his transformation from Ernesto, the doctor, to Che, the revolutionary. While my physical journey mirrored that of Ernesto's, my emotional one deviated substantially from Che's. Che viewed the suffering he encountered as a call to revolution and armed conflict in order to reverse the established social power dynamic in favor of the exploited. Ultimately, his dwelling on the extremist fringe of the political spectrum enabled a penchant for violence and retribution to supplant the love of humanity that first called him to medicine. When I witnessed such tragedies, I also concluded that action is necessary to address suffering. Yet I possess neither the hubris nor the longing for notoriety necessary to instigate social revolution. What, then, do I make of my time in South America?

I long to derive meaning out of the seemingly senseless phenomena of pain and tragedy. What can I learn from witnessing the devastating effects of an automobile accident in Chile, or from the heart-wrenching story about mother-to-child HIV transmission in Peru, besides concluding that the world is a cruel place? To answer this question, I must not treat these experiences as discrete pieces of memory from a different time and place, but as dynamic components integrated with my own life experiences. When I think of the pain these mothers endured, I realize that true suffering is only possible in the shadow of love. I think of the love my mother has for her children, and the shackles of cultural relativism break free when confronted with the universal ties that bind, the shared love that unites us all whether we reside in Chile, Peru, or the United States. However, this realization alone does not present a true evolution of thought. While I observed testaments to the commonality of humanity in my time abroad, I must maintain the humility to understand that I know almost nothing about these women and their children in the context of an entire human life, a portrait so multi-faceted that even the artist fails to register all of the details. I will maintain this perspective after I graduate from medical school and begin to see patients of my own. I aspire to a clinical practice that never succumbs to stereotyping, that most insidious of injustices. Stereotyping bars physicians from truly connecting with their patients and strips patients of their complexity. When physicians refuse to understand the patient's perspective, they fail their empathetic duty as health care providers.

Years hence, that boy with HIV may realize that the true scourge of society resides not within the T-cells of those positive for infection, but instead within the minds of those who pass judgment upon the infected. A mental health provider may dismiss that mother in the automobile accident as another patient undergoing the five stages of grief. As a physician, wherever in the world I might practice, I will connect with my patients through shared experiences. I will adopt their perspectives to the best of my ability, but I will never feign to understand all of the joys and sorrows, as well as the victories and

defeats, that have brought them before me. Above all else, I will endeavor to enhance their autonomy, to enable the fulfillment of their dreams, and to increase the number of strokes in their life portraits that neither subject nor artist nor observer will ever fully comprehend.

Thomas Golden is a medical student at University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School.

In Her Honor

By *Karina Haber*

I have traveled to twenty-six countries on five different continents. I have found myself delivering babies by candlelight, wrapping newborns in pieces of old cloth, and sterilizing my instruments in boiling water. I have operated on women's prolapsed uteri from which they had suffered in silence for years. I have done PAP smears on women never before screened for cervical cancer; and performed surgical excisional procedures for those harboring pre-cancerous lesions. So, by the age of thirty, I thought I understood the hardships of the world.

However, working in the labor and delivery unit at the largest national referral hospital in Uganda revealed to me I had much to learn about the consequences of poverty.

The sound echoing from that room was one I had never heard. Was it the beeping sound of fetal heart rate monitors or the whirl of epidural pumps? No; the only sound was of thirty-five women moaning and groaning to the pains of childbirth. Laboring women covered the ground, their amniotic juices and bright red blood saturating the plastic tarps spread to protect the floor.

Midwives were hard at work but none were smiling. They seemed defeated by the number of patients and the lack of access to necessary life saving resources. Desperation radiated from every laboring woman's face, each pair of eyes sent a silent plea to allow her and her unborn child to survive the journey.

On my first day, still in shock from the sights and sounds, I patiently coached a new mom in the birth to her daughter. After her perfect little being was born, the mother asked me my name.

"Karina", I responded. She looked down at her precious newborn and said "So is hers." I was not prepared for the extreme contradictions before me; I was moved by this mother's choice and the beauty of a healthy birth, yet, I was also aware that we were surrounded by serious complications, limited resources, preventable tragedies, and overwhelming desperation.

I went to the hospital with the intention of being an observer. I had a professional interest in how obstetrical and gynecological care differed in a low-income country from my practice in the United States. I wanted to understand why one in every 12 women in this country had to die in childbirth, and hoped to identify ways the willing hands of American physicians might help minimize the current inequalities in medical care. However, as I saw what was happening and witnessed the dire need of a competent health care provider, it was impossible to stand on the sideline. I couldn't let the woman in front of me suffer from an obstetrical emergency if I had the ability to perform the necessary surgery. I felt compelled to engage and I did.

I will never forget Mrs. Jane Doe, mother of seven, who arrived to the hospital seizing from eclampsia. I took a deep sigh of relief when I found a reassuring fetal heart rate but the mom was clearly unstable. We had to stabilize the patient before doing a cesarean to save the baby. It took me fifteen minutes to locate a functioning blood pressure cuff and another ten minutes to find a working pulse oximeter. I immediately ordered magnesium sulfate to protect the mom from consecutive seizures, but it arrived more than hour later.

Meanwhile, the patient continued to convulse. Her blood pressure was severely elevated but there were no available anti-hypertensive in the hospital pharmacy. The family dug through their satchels but couldn't gather enough money to purchase the necessary medication. I handed the son a few shillings from my own purse and he sprinted out of the hospital in search of this life saving remedy. Finally, we got the blood pressure out of a dangerous range, her seizures stopped, and thankfully, there was still a fetal heart. The patient was ready for surgery. But, as always, there was a long line of extremely sick women waiting for a cesarean section and the patient with immediate life-threatening issues took precedence. A patient with a ruptured uterus was taken back to the operating room, followed by a women and fetus suffering from a cord prolapse. The emergencies never stop. Twelve hours later, I finally performed a cesarean section on Mrs. Jane Doe. I delivered an alive but struggling baby boy. Mrs. Jane Doe never opened her eyes to see her newborn child; she died from a hemorrhagic stroke that occurred as she waited for treatment.

In a country like Uganda, misery comes in many guises: lack of medications, lack of anesthesia or mandatory operating equipment. At other times it's the inability to efficiently monitor vital signs or because there just aren't available physicians. The hospital has fifteen hundred beds but its average occupancy is greater than four thousand. Neither the thirty Ugandan house staff obstetricians nor the hospital resources can keep up with the overwhelming number of acute emergencies. I learned that the complexity of the many chains of causation are hard enough to comprehend let alone interrupt. I quickly realized that easy solutions simply do not exist for complex problems.

As an individual, I was overwhelmed when facing the enormity of the inequities and sufferings of Ugandan women, but I was comforted remembering that we are all part of something bigger than ourselves. As such, when we have the opportunity to take the first steps in being the change we want to see in the world, we should take them. Hopefully, others will see the impact we are capable of creating for those less fortunate, and join the journey towards positive change.

Karina Michelle Haber is the Chief Resident of Obstetrics-Gynecology at Danbury Hospital.

Silence

By *Roxane Handal*

“My body went limp as the fifth one penetrated deep within me. The other four chuckled as they held me down. Gang rape. They had taken turns ripping me apart, stripping me of my innocence, and then leaving me naked in the street to die. Alone and helpless, I lay there because nothing I did could change my situation. After all, they were part of the government, and as a poor woman, my voice meant nothing.”

Speechless, I listened to the woman before me tell her story. Only six weeks had passed since she had escaped from her native country Haiti in an attempt to give the baby girl she was expecting opportunity-granting citizenship. She had blocked out the memory for 12 years, but today the scars were reopened. Late to prenatal care, at 21 weeks of pregnancy, her symptoms revealed something far more ominous than a complicated pregnancy. Her weakness, neutropenic fever, dysphagia, and genital lesions were a direct result of a weakened immune system, a CD4 count of 47, and newly diagnosed AIDS, the disease the men who had raped her promised would represent their mark. She had never told anyone about that day, not even her husband, and refrained from getting tested for fear that the threat of disease would become reality. But she knew. She showed no signs of surprise at today’s diagnosis. This was the first time she had told her story, and it was clear that in a way, she felt liberated.

As I reflected on my patient’s years of suffering, I felt grateful for being able to speak her native tongue, allowing her to break from this bondage of silence. But what if I had not had the time as a medical student, nor the ability to speak Haitian Creole? Would she still be having unprotected sex with her husband and potentially bring a child with AIDS to this world? How many other patients have we failed because we no longer have the time as physicians to really *peak* to our patients? As a medical student I had been naïve to the weight of silence in my patients’ diagnoses. For the first time, I realized the power of silence, its critical role in disease, and the importance of providing a safe environment in which a patient can speak freely, free of fear and judgment. Whether it resulted from rape, abuse, shame, misconception of disease, lack of education, or the mere existence as a

woman with limited rights, fear drives the reluctance to break the silence. We frequently forget how silence continues to ravage many countries around the world, often presenting as an undetectable disease even to the brightest and most able physicians.

As physicians and physicians-in-training, it is our duty to treat silence and to palliate its related symptoms. However, we remain crippled by administrative affairs and short visits. When we pledge the Hippocratic oath, we promise to treat all who sought our aid without exception. We pledge to do no harm, but fail to act dutifully when we do not take the time to listen to our patients. To comprehend the physiological consequences of a disease, we need to immerse ourselves in the patient's cultural and social existence. In essence, to fully understand the complexity of the entire human physio-psychological palate, the burden of silence must be unveiled, because silence is a disease that can ultimately lead to death, and it is our responsibility to arrive at its cure.

Roxane Handel is a medical student at Boston University School of Medicine.

Catalyst

By *Lily Horng*

When asked about global health, I recall one particular hospital in Uganda and try to explain how witnessing this hospital as a medical student was terrifying, paralyzing, fortifying and ultimately transformative. I spent four months at this hospital over the course of my training, and I still often reread my initial reflections from 2007:

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These past six weeks taught me life is precious but so very cheap. It's unbelievable to see the end of this rotation approaching so quickly. The truth is that I am *scared* to leave. After all this hospital has given me – motivation, perspective, a sense of justice, a new work ethic – what if I disappoint? What if this “potential” within me is wasted? How can I even begin to repay what I took this summer?

My initial impression of the hospital was one of utter chaos. One-third of patients die in the hospital, and another third die within two months of discharge. Interns are so overburdened and poorly equipped that they are like firefighters using thimbles of water to put out the sun. Interns work for six months straight with zero days off, get two weeks of vacation, then work six more months straight.

But there was order, however foreign, within the chaos. Our first day rounding with my favorite intern Robert, we came to a bed I thought was empty. After a few minutes of conversation between Robert and the attendant, I was shocked to realize that under the small bump of blankets was actually a patient: an emaciated woman dying of AIDS and cryptococcal meningitis. Her attendants had no money, so the hospital was providing whatever it could for free. The average Ugandan earns US\$1/day. Certain medicines are free while they are in stock; a CBC costs US\$3, chest x-ray US\$6, echo plus EKG US\$37, and mortuary services US\$50. Residents and interns minister to these dying patients with everything they have. Residents actually pay to be residents at this hospital and, amazingly enough, they also personally contribute to a small free care fund. As a medical student, I've always wondered how I can contribute to patient care. Here, I wonder even more.

Perhaps my greatest contribution was to one patient, Mr. S, a 55 year-old man with six months of shortness of breath, wheezing and cough, and anasarca. Our only tests were our physical exam and a bedside echo showing right ventricular hypertrophy. Mr. S was diagnosed with CHF and renal failure and put on the Cardiology service. We gave him free furosemide and a nasal cannula to a communal, chronically empty oxygen tank. A chest x-ray was ordered, and the hospital waived his fees because he was so poor. Unfortunately, Mr. S had no way of getting to Radiology. He could not walk without getting short of breath and falling. He had no family or friends to act as attendants. He could not afford the US\$3 bribe for hospital transport.

After six days of waiting for a chest x-ray to be done, I decided to get Mr. S a chest x-ray. I talked to three nurses, a receptionist, and an emergency room staff member before I found Peter, a tech in the plaster casting room, who had a key to the wheelchair storage closet. Armed with a wheelchair, I took Mr. S into three different partly-functioning elevators to get to Radiology where I talked to the receptionist, billing, and x-ray techs to jump the queue to finally get Mr. S's chest x-ray. The long-awaited x-ray? It showed Mr. S had TB! The next day, he transferred to the Pulmonology service. The next week, after positive sputum samples, he moved to the TB ward to begin treatment. Mr. S's first, only, and last English words to me were "Thank you, Madame."

When I told this amazing success story to my brother, he just asked, "Shouldn't this be standard of care for everyone?"

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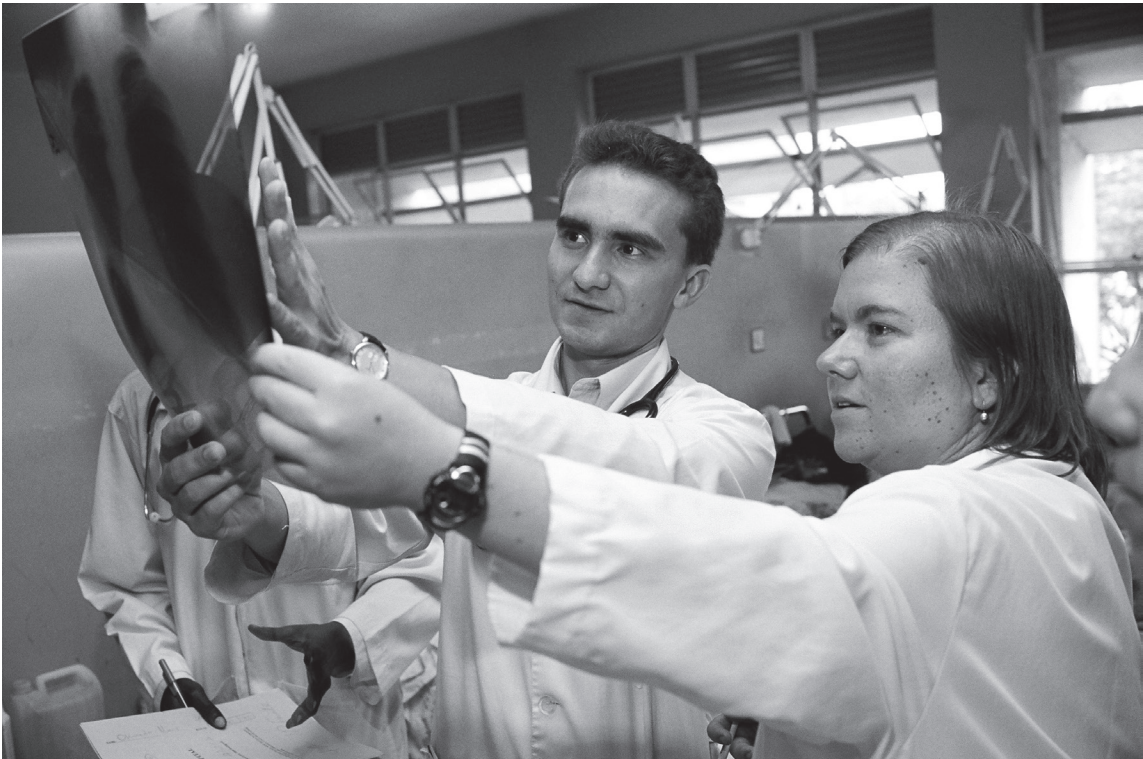
Coming back to the U.S. has been so unsettling and disquieting – I feel like everything and yet nothing has changed. Roads are too smooth, people are too mean, people are too fat, and things are way too expensive. These reactions are something I expected. What I did not expect is this feeling of being lost, disconnected, unhappy, and angry. I am hyper-critical of everything and everyone. I am thoroughly disgusted by so much waste, so much excess, and people being clueless and ungrateful. Friends and family have already called me "misanthropic" because I have little patience for people here. When someone asks "How was Uganda?" I only become more irritated.

How could these people possibly understand all that I saw? I have constant flashbacks of roads that were more potholes than roads, of men bicycling towering mountains of pineapples for sale, of neatly-stacked pyramids of battered skulls from genocide victims in Rwanda, of one skeletal, unattended, paralyzed patient reeking of feces on whom we *practiced* our neuro exam, and of a young orphan named Maska who rubbed her tummy and swallowed rocks to show me how hungry she was. I find myself wanting to either not talk about Uganda at all or take everyone I meet to Uganda. The hospital burns into my eyelids when I close my eyes to sleep.

My sister pointed out that my newfound negativity stems in part from guilt and self-disgust. I see how privileged I am. In the eyes of every person I meet in the U.S., I see how oblivious I was before Uganda. Even after Uganda, I find myself inexplicably wasting time and money on stupid things. My inability to change myself frustrates me so intensely! I deeply miss being in Uganda; I felt so alive there. Those six weeks were hyper-stimulating in every aspect of life: food, culture, friends, classes, travels, and medicine. Being in the U.S. is like life without color. I want to go back. I will go back.

So ... who should go to this Ugandan hospital in the future? Someone who is willing to be changed. Someone oblivious, but not purposefully ignorant. Someone who can survive the death and despair to then see the beauty and lessons beyond.

Lily Horng is currently a third year fellow in Infectious Diseases at Stanford University. She completed medical school and Internal Medicine residency at Yale University.



Rasikh Tuktamyshev (left, medical intern, Kazan State Medical University, Russia) and Allison Arwady (right, medical student, Yale University School of Medicine, USA) read chest X-rays.

Photo credit: John Curtis, Editor at Yale Medicine, Yale School of Medicine

Canada's Indigenous Population: A Forgotten Nation

By Rebecca Hrab

It is well known that many people are living in poverty and struggling to meet their basic needs in developing countries around the world. However, few are familiar with the dire circumstances in Northern Canada. I was quite naïve when I entered Nursing school. I had participated in a couple of short volunteer trips in the Caribbean during my time in high school; trips that I thought had opened my eyes to the disparity in the world. I chose nursing as my career so I could dedicate my life to the field of global health. I had my sights set on working in Africa, but much to my surprise, flying halfway across the world was not required to work in global health. Leaving my own province was not even necessary!

Learning about the health disparities between Indigenous Canadians and non-Indigenous Canadians during my University career shattered my sheltered view of my country. How could people living in the same province have such different health outcomes? After securing my fundamental nursing skills, I made a drastic career change. I left my job at the hospital, boarded a tiny plane that fit no more than ten people, and landed into a whole new world.

I had taken a job at an agency that provided nursing relief to remote Indigenous communities in Northern Ontario. These communities had limited resources and physicians were often only available by phone. I worked within an expanded scope, diagnosing and treating common illnesses. I provided emergency care, administered routine vaccinations, performed preventative health checks, and provided mental health care, among many other tasks. I worked long hours, often on call overnight. I developed rapidly in my professional career, and matured in my personal life. The experience was truly life changing.

Some communities lacked potable tap water, were food insecure, had limited access to job opportunities and education due to remoteness, lived in overcrowded

houses in need of repair, and suffered from illnesses related to these conditions. Before boarding that tiny plane, I thought I was going to make a difference. I soon realized how inexperienced I was, how interconnected the determinants of health are, and the impact these determinants have on individuals. Improving health in these communities was a more complex task than I knew how to handle.

Needless to say, the situation in these remote Indigenous communities shocked me. The circumstances are dire, and I was heartbroken to see this happening in my own province. I was not prepared for this experience. The history of Indigenous communities and how they came to be in their current state is long and complex. It reaches back through generations and harshly echoes today. But that is for a separate discussion.

After working in Canada's north, I finally embarked on my dream of travelling to Africa. I volunteered at a clinic in a remote, rural town in Kenya, with no running water or electricity. But, somehow, I felt prepared. Using a latrine was new, but working with limited resources was second nature to me after working in Northern Ontario.

Community members lived in overcrowded houses and had limited access to health care and education. The town was food insecure, and many people suffered common ailments not seen in Canada due to low immunization rates, environmental conditions, and various other complex reasons. I saw simple conditions go untreated because the clinic lacked the supplies to intervene. Sadly, this was of no surprise to me.

We see the situation of many countries in Africa in the news, portrayed in movies, on television, and over the Internet. We see the unjust circumstances that some people are forced to live in, and are aware of the poverty. With this exposure, combined with my experience working in Indigenous communities, I was not completely overwhelmed as many other volunteers in Africa were. Of course there was the usual culture shock, but I quickly adapted to my surroundings and found the clinic to be somewhat similar to Northern Ontario. Upon returning home, I was able to reflect and compare my two experiences. Why did I know about the hardships many people endure living in Africa, a continent so far from home while remaining almost completely blind to what was happening in my own backyard? Canada's Indigenous Peoples have been forgotten. The Indigenous people I worked with were kind, welcoming, and had a strong sense of family, community, and justice. Unfortunately, many of their voices go unheard by the public, and people are unaware of their situation.

My invaluable experiences have urged me to help make a change. I believe that these communities deserve better. More emphasis and interventions are required upstream, at the public health level. Focus on improving the social determinants of health is crucial to the future of Indigenous communities. Collaboration with members of the Indigenous community is imperative for success. I am currently studying to obtain my Master of Public Health, with a specialization in Nursing. I hope to use my broadened skillset to

make an impact in these isolated communities and improve the overall health. I wish to be involved in current public health programs, and help advance them to the forefront of Canadian global health initiatives, shedding a light on the current situation for all to see. If more people knew about the developing country within their developed country, more change may occur and people's lives could be drastically improved.

Rebecca Hrab obtained her Bachelor of Science in Nursing at the University of Ottawa, and is currently pursuing her Master's degree in Public Health with Specialization in Nursing at Lakehead University.



An aerial view of a remote community in Northern Ontario

Photo credit: Rebecca Hrab

Discovering India's Water Crisis in the Alleys of a Slum

By *Neil Issar*

A 500 mL bottle of water. While North Americans are often more concerned about the global overabundance and negative environmental impact of water bottles, ubiquitous in every grocery store and gas station, my view of them changed dramatically when I volunteered in India. I was teaching Hindi and English to children in the Ashoka Bindo Sar slum in New Delhi through *Prayas*, a local non-profit organization. The problems of lack of electricity and the inability to combat the sweltering heat were secondary to the slum's alarming shortage of water. Every family's routine revolved around the arrival of a water truck, the only source of potable water, which came three times a week. The appearance of the truck would cause temporary havoc in the slum as everyone ran to fill any empty water bottle they could find.

It was cruelly ironic, then, when a flash rainfall flooded the undeveloped roads leading to the slum and prevented the water truck from arriving. Collecting the rainwater itself was unsafe as runoff from fertilizers, septic tanks, and sewage, exacerbated by inadequate wastewater treatment facilities, has contaminated most of New Delhi's water sources. As such, many families were left with only a few 500 mL bottles of water, if even that much, to sustain themselves until the roads could be cleared. I cannot imagine how a family could survive in such meager conditions, with barely enough water to drink, much less to bathe or wash clothes.

I discovered that India, despite being a country that has trumpeted its economic and technological achievements over the past few decades, still reveals many enduring images of extreme poverty: open sewers framing the narrow lanes of the slum in which I was teaching; crippled vagrants rummaging through garbage heaps, vainly searching for food or something to sell; malnourished children vying for the opportunity to touch my foreign clothes, flashing rare but bright smiles for the camera; and families subsisting for days on a few bottles of water.

The wave of industrialization that began in the late 1970s certainly changed the economic landscape of India, but many industrial structures were built along riverbanks for easy water availability and waste disposal. As a result, rivers and groundwater have become laced with toxic heavy metals and chemicals such as acids, alkalis, and dyes, all of which greatly impact the pH of the waters. The effects of this contamination are being rapidly felt across the country, both by rural farmers attempting to tap into groundwater through wells and by citizens living in urban slums. The problem is continually worsened by the expanding tendrils of the nation's urban sprawl, which is replacing ponds, lakes, marshes, and mangroves – the natural sponges of Indian cities – with economic development and construction. And when rainfalls or monsoons hit, as they did when I was in the country, they come in short unpredictable torrents. Thus, instead of replenishing groundwater reserves and being welcomed by farmers and slum residents alike, they flood riverside villages and wreak havoc on fragile infrastructure, transforming waterlogged city streets and slum alleyways into breeding grounds for dengue fever, cholera, and other water-borne diseases. The very resource around which the lives of slum residents revolve and depend becomes the source of life-threatening illness.

I had previously seen the uncertainty and fragile emotions of the impoverished suffering from illness and isolation when I volunteered in the emergency ward of a rural hospital in Ontario, Canada. I travelled to India familiar with the statistic that over two million Indian children under the age of five die each year largely due to a lack of clean water and that 700 million Indians lack adequate sanitation or access to basic healthcare. However, it was in that New Delhi slum that I truly realized and witnessed firsthand the profound disparities of healthcare and economic status still far too prevalent in the world. My experiences in India solidified my passion for providing underprivileged people with healthcare and the resources to influence both policy and legislation. This passion, in turn, has motivated me to pursue a joint degree in medicine and law.

Depressingly, the situation for New Delhi and the rest of the second most populous nation in the world is only expected to deteriorate. India's water demands are growing exponentially, and this demand is being stretched by an economy that is pushing ever forward and an agricultural sector that still relies heavily on water-intensive crops. However, the country's water crisis is frustrating, as the root of the problem is not availability but instead distribution, encumbered by feeble administrative oversight, government corruption, a lack of pollution regulations or legislation, and industrial and human waste. While many politicians recognize the severity of the water shortage, and students and activists continue to send strongly worded letters and emails compelling government officials to action, the only ones suffering on a daily basis are the lower-class

citizens and slum residents, who are left with nothing to do but tackle the crisis one water bottle at a time.

In the end, I am left with the image of slum children and adults clutching empty plastic bottles and frantically running towards a water truck. It will serve as a reminder of the Indian government's staggering failure to deliver the most basic services to its people while the nation simultaneously attempts to assert itself as a major economic player in the global arena. The problems of water management and environmental injustice that I witnessed are threatening India's ability to sustain its economic growth, support its sagging agricultural industry, and maintain habitable cities. At stake is not only India's international image but also the very fabric of Indian society. I fear that the water crisis, among a multitude of other problems facing the nation, is causing this social fabric to unravel.

Neil Issar is pursuing an MD/JD at Vanderbilt University School of Medicine.

Pasyon, Lespri, Renmen: The Haitian Way of Life

By *Jie Jiao*

While most of my college and medical school classmates returned from medical trips captivated and inspired, I came back humbled and burning with questions. Let me rewind and tell my story from the beginning.

Before my second year of medical school, I spent my summer in Haiti working with a non-profit medical organization based in Port-au-Prince and the Central Plateau. While my main focus was to quantify and address the increasing shift in disease prevalence towards chronic conditions, my observations took on a more anthropological approach as I learned about Haitian culture and lifestyle.

Haiti is a country rich in tradition, happiness, and spirit; a liveliness reflective of Haiti's incredible history. Every individual I met was committed to working their hardest to earn a living and provide for their family. However no matter how hard these individuals worked, the extreme forms of poverty they were living in were still unacceptable and shocking to my eyes. Several families shared a space in unfinished concrete rooms, sandals worn down to a skinny strap held together by the cheapest tape, children so malnourished their beautiful black ringlets took on a copper hue. I wondered if and how Haiti could ever raise its citizens out of this poverty and create a sustainable, independent country.

To understand this poverty is to understand the everyday life of a Haitian. While I was not allowed to exit the hospital compound due to security reasons, Haitian life was brought to me in the forms of the patients and their stories. From machete wounds endangering limbs to beer bottle lacerations, I witnessed violence. From anticholinesterase poisoning, I saw the long-standing Haitian practice of Voodoo. From the loss of two intubated children due to a city blackout, I appreciated the necessity of a permanent electrical source. By witnessing patients pass away because their disease was addressed too late in progression, I learned the transiency of life. Even though I was at one of the largest foreign aid hospitals in the country that has saved many lives and ameliorated the prognosis of many others, the events I witnessed were accepted as commonplace. My

inquiries into this acceptance translated into a curiosity about the infrastructure of these hospitals and the utilization of foreign support.

As time passed, I appreciated the crucial role foreign aid played in addressing the immediate healthcare issues in Haiti. However I became wary to the sustainability of this system. To operate the hospital I was working at, many donations were required. This was obtained in the form of volunteer personnel, medications, and equipment from Western countries. But how do you apply Western medicine and solutions in a country such as Haiti where patients were lost due to electricity outages? Further, how long will foreign aid last? And an even more ethically challenging question: is it fair to allow the Haitians to build up so much dependence on their Western supporters for something as essential as healthcare? Will the system be sustainable once foreign aid has ceased? Putting Band-Aids on something that requires stitches can only last for so long.

While I have no answer to this complex question, my experiences in Haiti taught me to understand the universal themes underlying systemic issues. If the goal is to help Haiti become an independent nation, supporting nations and non-profit groups need to evaluate what is underlying the health and economic issues facing Haiti. This begins with communication - communication with and among the Haitian government, people, and supporting organizations about what is needed and what is currently in place. Working in concert, these organizations can help to build a Haiti for Haiti. With communication, Haitians can begin to piece together gaps in their healthcare system, evaluate existing models and build upon current models that have shown success in addressing healthcare issues.

Although I was only in Haiti for a brief period of time, I learned a lot about people, the practice of medicine, and challenges that face medical professionals. After processing my experiences in Haiti, I still hold onto my idealist perception of medicine. I believe the disparities that we witness throughout global health and healthcare can be addressed. While I have mainly discussed the injustices I witnessed in Haiti, I want to emphasize an incredible strength Haiti has that will be instrumental in addressing the injustices we witness. Passion. The Haitians have an incredible passion for life and their country which is evident in every aspect of daily living. Even through roadblocks and lack of resources I believe the Haitians can continue with the building process and persevere; for themselves and for their country.

Jie Jiao is currently a 3rd year MD-MPH student at the University of Miami Miller School of Medicine.



Living conditions in Port Au Prince, Haiti.

Photo credit: Jie Jiao

A Summer Abroad: The Lost Children of Peru

By *Mark Kashtan*

When I first arrived at the Hogar, I was surprised to find a modest two-story house that would not have been out of place in a middle-class suburb back home in California. Nestled in a small Peruvian village, its unassuming façade belied the institution's mission of providing free care to sick and impoverished children from across the country, more than fifty of whom called the Hogar home at any given time. Inside the foyer, pictures of children and volunteers going back more than a decade covered every wall. Soon voices drifted down the solid oak staircase, followed a moment later by their owners, one of whom I recognized as the doctor who ran the Hogar.

"You must be our new volunteer. Welcome to my home."

I was first inspired to journey to the Hogar by a documentary produced by two brothers from a boys' home in New York. In the film the young men search for the answer to the question "what makes us human?" by seeking out and living amongst some of the most vulnerable that humanity has to offer: the homeless of New York City, the lepers of a colony in Africa, and the children of Dr. Tony's clinic in Peru.

In fact, to call the Hogar a clinic would be something of a misnomer. While the children do receive in-home care for their day-to-day needs, most of their medical treatment is actually delivered in hospitals and specialty clinics in Lima, a two hour ride away by bus. A handful of kids make the long journey each weekday, braving the cutthroat highway traffic in order to receive the examinations, prescriptions, and surgeries for which they have left their families behind. Staff members accompany the children on these trips into the city, as do volunteers when infants, toddlers, or those confined to wheelchairs are counted among the day's travelers.

While the regular pilgrimage to Lima for medical care is the reason most of the children have come to the Hogar, it is by no means the defining experience of their time there. Every child who is able attends school as long as he or she stays at the Hogar, while those who are unable benefit from the services of an in-home tutor. As important as the schooling is for the children's education, it is perhaps more important for the socialization

they receive. The large number of Hogar children attending the same schools year in and year out have become a fixture in the community, and the familiarity has bred an understanding of the nature of their illnesses, even among their young peers. Bullying or teasing of the children for their health issues – which are often profound and readily apparent, from facial burns to skeletal malformations – is virtually non-existent. These children, some of whose deformities earned them accusations of Satanic influence in their home villages, instead get to grow up in an environment of acceptance and understanding.

Not to be undervalued, either, are the three square meals the children are served every day. Peru is an extremely impoverished country, and for many families putting food on the table is far from a routine affair. With immense urban and rural populations in poverty, as well as enormous family sizes due in no small part to the nation's predominantly Catholic ideology, having enough to eat cannot be taken for granted. The handful of patients that show up regularly to the Hogar's door to be treated for nothing other than malnutrition is a testament to this fact.

The spiritual benefits of the Hogar cannot be understated either. Peru is a ninety percent Catholic country, and the children's religious sensibilities are nurtured as surely by their time at the Hogar as are their bodies. While no child is forced to attend mass, every Sunday the house empties out into the street and parades through the neighborhood together to the local church, and in the afternoon a nun from the local parish visits for Sunday school lessons. Interspersed with the pictures of smiling children and past volunteers on the walls are images of saints and other holy icons, and before every meal the children recite a simple grace. Many of the children, particularly the older teenagers, find great comfort in their faith, not to mention relief from the day-to-day difficulties of their illnesses.

Ultimately, the real magic of the Hogar is in the community that has been created within its walls. Regardless of the medicine that is practiced there, the collections of crutches and wheelchairs that lie scattered about, or the bandages and medical hardware apparent on its inhabitants, the Hogar is not a clinic – it is a home, and the children and staff that live and work there are a family. Many of the childrens' ultimate ambitions are to become nurses or therapists at the Hogar, an aspiration reinforced by the fact that several staff members are themselves former patients. Alumni drop by often to see their friends and share stories of their lives, and more than a few are now married to spouses they met in the Hogar as children. The importance of this sense of community was illustrated most vividly for me when the school term ended in the middle of my visit. With their studies completed, several children, now healthy, were slated to go home. One boy, a thirteen-year-old, spent an entire morning running about the house, unashamedly in tears, hugging his goodbyes to the nurses, the Mamitas, his friends, and anybody else he could find. As his family piled into their small van and drove away, his eyes never

once left the Hogar. As I would discover, most goodbyes to the Hogar were waged this way – a bittersweet mix of hope and sorrow as the children left one family behind to rejoin the other.

Mark Kashtan is a fourth year medical student at the Medical College of Wisconsin and is pursuing a residency in general surgery. He attended the University of California at Berkeley for his undergraduate degree.

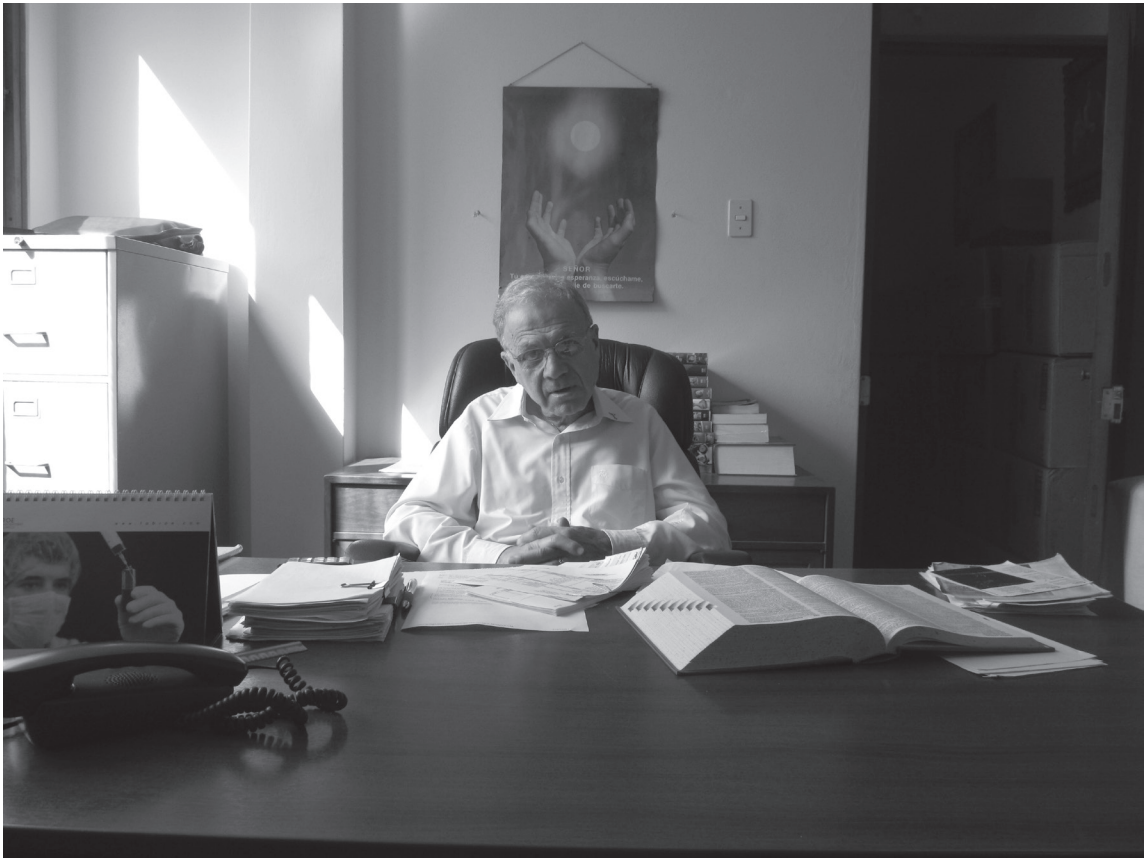


Photo credit: Mark Kashtan

The “Fix”

By *Traci Kazmerski*

“Nice to meet you, Mike. Why don’t you get scrubbed in? We have a clubfoot repair in the OR now.”

This was how my husband, an orthopedic surgery resident, was greeted at the CURE hospital in Addis Ababa, Ethiopia this past spring. Within thirty minutes of arrival, he was doing a procedure that would put a fifteen-year old boy on the road to walking normally for the first time in his life.

I was jealous. As a pediatric resident, I watched Mike go into the OR to fix problems as I sat actively identifying them. I had no idea how medicine fit into this culture. I struggled to learn the hospital and city’s existing infrastructures. I couldn’t even begin to understand what resources were available to the patients I was seeing. Most of the children were undernourished and unvaccinated. Many were from poverty-stricken rural areas with limited access to education and preventive healthcare.

I found myself asking, “Is the ‘fixing’ that we are doing enough?” I felt overwhelmed and lost. I knew we were doing a good thing by operating on these children. My husband was correcting deformities that had, until these surgeries, rendered them unable to find employment, unsuitable for marriage, and socially ostracized by their communities and families. But, I also knew there was so much more to be done.

A December article in the *New York Times* highlighted the tremendous gains in reducing childhood mortality in the past twenty years. In the most recent Global Burden of Disease report, it was observed that the death rate of children under five years of age has dropped in every country in the world except three. Reducing childhood mortality has been a long-standing goal for aid organizations worldwide, and this achievement is truly remarkable. However, this feat must also be viewed as a jumping-off point. In an article in *Pediatrics*, Jack Shonkoff states, “The campaign to save lives is incomplete if the future prospects of those who survive are constrained to continuing adversity.” Reducing childhood mortality, like fixing orthopedic deformities, is just the beginning.

The “rehabilitation process,” either of life or limb, is arguably the greater challenge and, during my time in Ethiopia, I encountered many barriers towards achieving this goal.

First, the malnutrition I witnessed in Addis Ababa unfortunately is far from the exception. In developing countries, poor nutrition greatly contributes to all major causes of childhood mortality, including diarrhea, measles, pneumonia, malaria, and neonatal disease. Furthermore, improving the nutritional status of children will not only improve health outcomes far into adulthood, but also affects educational achievement and economic potential. Nutritional supplements and encouragement of breastfeeding are the mainstays for intervention and improvement, but are still not universally available or accepted.

A second barrier I identified in Addis was the effect of social determinants of health. Much research has focused on the negative impact of social stressors on development. Poverty, violence, abuse, and neglect lead to significant poor outcomes in physical, mental, and emotional well-being. Moreover, continued stress can lead to a sense of hopelessness and despair. In these environments, survival is prioritized above all other variables, however crippling those may be.

The relationship between stress and poor health outcomes extends beyond sub-Saharan Africa. In a community survey of a neighborhood in Pittsburgh, Pennsylvania, parents of children with asthma were asked to identify the barriers they faced in adherence to controller therapy. Community violence was cited by many as a major roadblock to regular dosing of inhaled corticosteroids. To put it bluntly, you don’t worry much about controlling your asthma when you are worried about your safety. Similarly, a neglected clubfoot, continued breastfeeding, or purified water doesn’t seem so important when you are enveloped by more immediate threats of war or poverty.

Lastly, the most powerful factor at play during my trip was a lack of knowledge. Education has long been a focus in improving the conditions in the developing world and is viewed by many as a basic human right. Specifically, education of women has been found to have important implications for improved health and child mortality. Nicholas Kristof and Sheryl WuDunn called attention to this in their book *Half the Sky* as they examined not only health repercussions, but also effects on economic development and treatment of women. Educated women are more likely to seek medical attention for themselves and their families, postpone childbearing, and adopt encouraged health practices. As I saw patient after patient with suboptimal healthcare, I wondered how different their situations would be if their mothers’ education were made a priority.

All this theory I know. However, I felt truly powerless when faced with these realities in Ethiopia. But what can we do? Surgical repairs and mission trips cannot be put on hold until we figure out how to curb poverty, develop educational opportunities, and improve access to healthcare. US Ambassador-at-Large for Global Women’s Issues Melanne Vermeer stated simply that we need “heat at the top and at the bottom.” We

need to pressure our government to stress these issues in foreign policy and push for investments in agencies with agendas that will focus where the problems lie. We also should continue to work for the more “immediate fix,” whether that be the operation that my husband performs or individually staying vigilantly informed on developing world issues. Engaging in global health goes beyond professional development. It goes beyond theory and rhetoric as well. You become an advocate for the basic human rights of your fellow man.

So, is the “fixing” enough? The answer is no, certainly not. But it is a part of the solution. We, as a society, always have a duty to do more. I will always feel overwhelmed when faced with these issues, but I think Somaly Mam, a former sex slave from Cambodia who now works to rescue young girls with a similar story, put it best: Sometimes people want to do too much and they do nothing. Sometimes they say, “I can’t help you.” Everyone can help. Everyone can do one thing. Start with your heart ... what it wants.

Traci Kazmerski is a Pediatric Resident at University of Pittsburgh.

Standing Among the Empowered

By Aparna Krishnan

I could hear the clanking of iron on metal from across campus. Sawdust filled the air around the small concrete enclosure where four men diligently worked from dawn to dusk to cut, grind, drill, sand, hammer, weld and plaster. After a few hours of labor, their prosthetic masterpiece – the Jaipur Foot – gifted a patiently waiting amputee a second chance to walk again on two feet. Several hundred other amputees awaited their opportunity.

Spending a year in a rural Indian village, working with community groups, living among village health workers, and traveling with an NGO's mobile health team allowed me to appreciate such wonders of comprehensive primary health care and development at the grassroots level. I wove in and out of community-wide discussions as project leaders and community beneficiaries identified socioeconomic and healthcare barriers and created collaborative solutions.

The Jaipur foot is a perfect example of one such solution: the adoption of appropriate technology that is simple, locally produced, cost-effective, and sustainable. It promotes self-sufficiency through an emphasis on local community ownership, management, and maintenance of this technology. The device has transformed the lives of hundreds of thousands of amputees—an untiring construction worker, a blossoming boy with a congenital deformity—and has enabled its users to continue their work and lead functional lives despite the loss of a leg.

What strikes me as beautiful about the Jaipur foot is its ability to be a strategic booster of community empowerment. It is technology that, in my eyes, is fundamentally by the people, for the people; sustainability of a project ultimately takes on real value when self-reliance can unfold within a community through community participation and dissemination of knowledge.

A prosthetic foot in the U.S. averages \$8000. In contrast, the Jaipur Foot costs about \$30 for below-the-knee and \$60 for above-the-knee prosthesis. Creators of this technology tailored the device to the active lifestyles of the poor, ensured it was

waterproof and lightweight, and customized the design to each patient. It continues to be difficult for me to rationalize the marketing and promotion of expensive, state-of-the-art prostheses in a setting where the majority of amputees live in poverty and are some of the most marginalized in Indian society. I learned that the greatest need comes from those who have lost a limb suddenly from road traffic or farming accidents, and vascular complications related to untreated diabetes. It became increasingly clear to me that for these poor, the ability to walk on uneven ground was essential for their work, and days spent without a limb threatens their livelihood and sustenance. I see appropriate technology as a universal solution to local problems; it ensures that the technology is adapted to the people's needs rather than having people adapt to the technology.

Witnessing the transformative changes brought by the Jaipur foot to numerous amputees prompted a change in my own perspective on poverty. I used to view those in poverty as victims of unfortunate circumstances, rather than as people with their own unique skills and passions. Instead of seeing them as people living in poverty, I viewed them as "the poor." For a long time, I ascribed my impressions to this "us" and "them" mentality.

My own transformation has been in how I view my own role as a potential community partner—to be a catalyst in the transformative process and thereby begetting a paradigm shift in the dynamics of power between care providers and end users. In global health, when distances, languages, and cultural discrepancies can make us seem so far removed and disconnected from those we are trying to help, I have come to believe that there can be no "us" and "them." Health and development initiatives cannot merely aim to solve issues by providing a service or mandating change in behaviors, but should build upon community members' strengths and passions, individual and joint, that make them who they are and what they can be.

My work in rural India and countless discussions with grassroots workers have left me with the realization that in today's world, the local and the global are inextricably linked. These days, power is often shared at both of these levels. I have come to appreciate that for effective and sustainable progress in health and development, community empowerment must take advantage of this inter-linkage. Far too often have power issues between "dominant" and "minority" cultures, biomedicine and traditional healing, and professional and common lay people greatly influenced the access to quality care and outcomes of well-intended interventions.

It is not difficult for one, including myself, to grasp the psychological sense of wholeness felt by each handicapped amputee when he or she walks away with a new leg. Watching this transformation occur within minutes, I cannot help but think how such simplicity can have the greatest effectiveness, especially amidst a culture of global health in which a person's needs can be overshadowed by what the system can readily provide.

I often reflect upon my role in the global that will have the greatest impact on the local. The artisans in the Jaipur Foot workshop in a small Indian village have showed me a glimpse of what this role might be through the exchange of appropriate technology as they have taken their skills to artificial limb camps across Maharashtra, the rest of India and abroad in Nigeria, Angola, Liberia and Rwanda. Our health and lives are intertwined in social, economic, physical and emotional webs. I hope to one day leave my footprint in communities, and partner with and empower them to leave their marks in other communities far and wide, whether it be through the spread of people, ideas or a simple foot.

Aparna Krishnan is a medical student at Johns Hopkins University. Prior to medical school, she graduated with a B.S from Johns Hopkins University and spent a year working in Jamkbed, India.



Finished products awaiting their new owners.

Photo credit: Aparna Krishnan

Dear Tenzin

By *Gilbert Lam*

Dear Tenzin*,

“Doctor, why am I so short?” you asked me with your innocent, yet thick accent that immediately exposed your rural Indian heritage. Although you were only eight years old, your face appeared weathered from the same eight long years of harsh climates. You—like the 500 other children I was performing health screens on—had obviously grown up in Rinchen, a remote village nestled 13,000 feet high in the Himalayan Mountains, isolated from the rest of India. It was only my first week working with your community, but the answer to your question was immediately obvious to me. I—having grown up in a first-world, educated society and now studying medicine at a first-class Canadian institution—suspected a diagnosis of stunted growth secondary to malnutrition. In my medical textbooks, the reason was simple enough: your nutritional needs were not being met by your intake. Before I could respond to your question, though, you had already run off to play ball with your friends.

However, over the next few weeks I spent with you, I realized the answer to your question was much more complex than I originally thought. That summer, my official role was to improve the community’s health by treating infections, developing greenhouses, implementing health workshops, and assessing water sanitation. As you know, due to harsh winter climates, Rinchen is physically inaccessible and without external sources of food for seven months of the year. As a result, you and your friends live chronically with anemia because of iron, folate and vitamin B₁₂ deficiencies. As you know well more than I, Rinchen has been dealing with significant cultural, economic and political barriers to good health. Your innocent question inadvertently taught me a profound lesson: you weren’t short because you were just a poor eater, but rather, your growth and development were stunted by your social determinants of health, over which you unfortunately have no control.

“Why am I so short?” I, too, remember asking myself as a child. Like you, I had also been the shortest boy in my class. Like you, I also was an eight year old boy bursting with curiosity, imagination and innocence. However, so many other parts of our childhoods

seemed different. My childhood was not overcast by extreme poverty and hunger. My right to primary education was never threatened. My childhood was not inflicted with chronic diarrhea, malnutrition nor persistent anemia. Surviving past the age of five was expected for me. In fact, I celebrated my fifth birthday with cake, stickers and presents. So, when I left Rinchen, I felt sorry for you.

Upon my return to Canada, though, I have felt grateful for you. Tenzin, I wish you knew how you have shaped my perspective of life. I went back to medical school in Canada and started to see patients in a new light. While caring for the sick baby in the Intensive Care Unit, the suicidal teenager in the Emergency Department, or the palliative grandfather on the hospital ward, I have continued to learn firsthand that patients' problems are never purely medical; they are socially confounded as well. The true 'treatment,' to your anemia for example, is never just a medication we can easily prescribe; we must also address the social circumstances and home environment to foster healthy growth and development. This, in fact, has been an invaluable lesson. Although medical school has taught me the complexities of the human body, I now believe wholeheartedly that the social determinants of health must also be addressed to allow children like you to grow healthy and strong.

Tenzin, I have spent many a time thinking about our experience together. Through our time playing volleyball and cricket on the courts, going for walks around the schoolyard, and drinking chai together, you showed me how you 'cool' you truly were. As you told me stories about Buddha and its importance to your culture, I was impressed at your openness to share your beliefs with me. You have taught me that no matter our cultural backgrounds, our religious beliefs, or geographic location, we must understand the backgrounds of our fellow human beings to advocate for each other, and make the world a better place.

You have inspired me to work in a field called global health. As I graduate from medical school this year, I am committed to helping alleviate the injustices of our world, starting with children—our hope for the future. I will be pursuing specialty residency training in Pediatrics, to better equip myself with the skills to advocate for children's health. You have inspired me to continue caring for children in low-resource settings, ultimately becoming a "Doctor Without Borders." I went to the Consortium of Universities for Global Health conference last year, where other people shared their work in global health and the lessons they took home with them. I realized there are lots of other passionate, compassionate and empathic people who are fighting to make the world a better place. With this inspiration, I returned home and worked even harder with the Canadian Federation of Medical Students at encouraging global health opportunities for other students. Ultimately, I want to continue working with these passionate people and contributing to society by fighting for children like you and your basic rights to healthy lives.

I am sorry that you never received an answer from me about why you are short. In some ways, I still don't really know. However, I am writing you this letter to let you know that you have changed my life. Your question taught me about the social determinants of health, the importance of curiosity and the hope that you carry for the future. One day, I hope to return to Rinchen and meet you again. Until then, I just wanted to thank you for making me a better doctor.

Thank you for making me a better person.

From your friend,
Gilbert

*Tenzin is a pseudonym and a common name for many of the children in the Spiti Valley.

Gilbert Lam is a Pediatrics resident at Children's Hospital of Eastern Ontario in Ottawa, Canada. He is a 2014 graduate of the University of British Columbia Medical School in Vancouver, Canada.



Spiti Valley in the Himalayan Mountains, where health screenings were conducted.

Photo Credit: Gilbert Lam

It Takes Some Getting Used To

By *Christina Liao*

“Fo-fo-LAY-shing.”

“What did he say?”

Our new biochemistry professor was talking about enzyme regulation – phosphorylation to be exact. Most students found at least half of his first lecture to be unintelligible. Despite the sniggers, we still called him “professor” when we asked him questions. For the individual student, it was hard to tell whether the snigger or the deference was hypocritical. He turned out to be our favorite lecturer of the semester; he just took some getting used to.

In the December 2012 issue of *The New Physician*, Drs. Vanessa Parisi and Edward Cho wrote an article about the importance of cross-cultural simulations to prepare medical students for experiences abroad. Though a fair number of medical students still aim to be plastic surgeons in Boca Raton, a growing number of aspiring physicians have their eye on global health. The world is shrinking. There is a growing awareness that global health issues are germane to the individual doctor’s practice, and rightfully so. But global health practitioners aren’t cultivated overnight.

Any attempt to adopt a nobler, broader perspective about medicine must be built on the foundation of integrity: consistency between attitude and action. A physician’s day-to-day conduct, his minute-to-minute life attitudes, will influence his actions, regardless of how good a game he talks. What is he like in the midst of uncomfortable cultural clashes? What is he like, for example, when studying in a foreign country with a professor who has questionable English pronunciation?

What my classmates and I learned this semester was that cross-cultural endeavors – medical or otherwise – take some getting used to.

We had committed to studying medicine in China before receiving further clinical training in New York. Instructors in the English program at China Medical University (CMU) were high-ranking professors in their respective departments with a wealth of experience and several publications under their belts. CMU gave us its very best. We

gave CMU the snub. Our initial response to our professors was typical of native English speakers; we let our derision of their pronunciation color our view of their competence.

After a week of mocking mispronunciations, a few of us got together, reflected, and recognized the gross impropriety of our attitudes. Who were we to look down our noses at our professors – these men and women who have accomplished so much, and in a second language? How many of us could carry on an intelligent five-minute conversation in another language, much less give two-hour medical lectures on a weekly basis? How could we expect to be culturally sensitive contributors to global health discussions and medical mission teams if we couldn't learn to appreciate a teacher whose only academic shortcoming was his pronunciation of English?

There is a lot about China that takes a lot of getting used to. But of the world's developing countries, China is arguably the most comfortable to live in. As medical students, we all want to help people, but it only took a little prick of discomfort to cause our borderline racist, intolerant attitudes to leak out. We needed to rebuild the integrity of our cultural attitudes. We couldn't claim to aspire to become global health practitioners and not be able to practice understanding, tolerance, and humility in day-to-day life in a foreign country. Our shame was a strong motivator for our reversal in attitude.

The path to being culturally sensitive is tricky; it takes some getting used to. We have to make a conscious effort to examine our attitudes and resist giving in to knee-jerk reactions. When street vendors overcharge us, is that an issue of justice or culture? When the school announces schedule changes last minute, is that an issue of administration or culture? When a professor seems reluctant to take questions in class, is that an issue of personality or culture? Many of these questions have no straightforward answer. And even if an answer is arrived at, decisions about the appropriate response can be even more difficult.

For young medical students like us, it is enough of a challenge to make ourselves continue to ask questions. Keep asking, we challenge each other. Continual examination, rejection of complacency, asking questions – isn't this an integral part of being a medical practitioner? As we challenge ourselves to keep examining our attitudes, we've concluded that continually asking questions is crucial to being a global health practitioner as well. Drs. Parisi and Cho would say that we have it made. We get to engage in cross-cultural simulations every day.

Constant self-examination feels like the middle of a marathon, in which we both recognize the progress we have already made while acknowledging the work left to be done. Giving everyone the benefit of the doubt is a \$500 buy-in at a no-limit table. Humility is an itchy wool sweater. Willfully subjecting ourselves to this constant discomfort seems pointless at times. But many of us are hoping to do great things, like "serve the underserved" and practice "medicine without borders." We're learning that at

the heart of these great missions exist individuals who've accepted the daily challenge of practicing understanding, tolerance, and humility in cross-cultural contexts. We want to become those individuals.

A few of us have decided the discomfort is worth embracing. This marathon is worth running. The \$500 buy-in will teach us to stay generous in our assumptions, especially when these assumptions concern patients and providers from different cultural backgrounds. And that itchy wool sweater will keep our hearts warm, remind us we don't have all the answers, and make us better equipped to contribute to global health discourse as we approach it with a learning attitude. Knowing that our present discomfort – living and studying in a foreign country – will make us better global health practitioners is actually quite comforting. Because at the end of the day, it all just takes some getting used to.

Christina Liao is a medical student at China Medical University.

Leaky Pipes

By *Melissa McCoy*

Drip.

Drip.

Drip.

Sweat poured like a river out of my pores, streaming down my back as I tugged at the giant tumor with my trembling hands. I held the soaking monster out of view of the surgeon as he meticulously tied one-handed knots around the neck-vessels threatening to burst.

Drip.

Drip.

The patient's blood puddled on the stained floor, swirling into a tributary on its slow journey toward the drain four feet away.

Drip.

Drip.

The mold-encrusted air-conditioner gasped, desperately attempting to expel air. A three-inch spider scuttled past. It sank in that I was far away from my pristinely sterilized, disposable-everything, rigorously documented surgical rotation in a world-class teaching hospital.

I focused on this mother of six, with her soft dark eyes, wisps of gray starting to appear in her tightly braided hair. I held her hands before the anesthesia took hold, and remembered how rough and strong they were, hands that told a story of harvesting manioc and groundnuts. I needed her to be strong right now.

More blood dripped.

Her massive tumor, a surgical "zebra," was caused by iodine deficiency (a rarity in my own country). How ironic, I thought, in Sub-Saharan Africa, land of the zebras. I had to remember she was one of the fortunate ones with the meager funds to receive treatment. As I placed a drain and sutured the gaping incision back together, I imagined

sewing the broken pieces of her life back together, in this drippy hospital, a part of a gushing broken system.

Drip.

Drip.

Drip.

The bleeding stopped as I applied pressure to the dressing. All bleeding stops eventually, the detestable surgical mantra chimed in head.

I walked home, still dripping in sweat, thirsty and exhausted. I was still not accustomed to the baking sun of the dry season of the southern Sahel. A crowd gathered ahead of me on the road. A broken pipe jetted water into the air. The pipes here are practically constructed for failure. Brittle plastic pipes, which beneath the dirt road, are exposed by erosion from rainfall. With time, passing vehicles inevitably rupture the pipes leaving all those downstream affected.

Precious water snaked its way toward my Cameroonian family's little home at the bottom of the hill. Where does the blame lie in a cracked community water main? Who would pay for this damage and the strain it caused? Surely working through this together would be more useful than making accusations, as was now happening. For now, assigning blame was a purely human response in the face of stress. The exasperated crowd looked on with voices escalating and fingers pointing.

The next morning on my walk back up the hill, the water still flowed, my sweat still dripped, and my mind brimmed with questions. How was my dear patient recovering? Would the 54-year-old with charming crow's feet and the soft, French-speaking voice I had listened to so attentively still remember me? When I arrived, I glanced to her bed. She was nowhere to be found. Odd. My heart pounded. Where had she been transferred?

A vital pipe had burst.

She died in the night.

The German surgeon tensely explained to me he was sure the nurses had been negligent. The nurses found her after the vessel in her neck had ruptured. They desperately grabbed sponges, removed the drain to divert the flow away from her airway, and did the best they could with what they had. It was too late.

Had the nurses been negligent? Perhaps they would tell a different story of poorly written job descriptions, inadequate training, and corruption that had led to missing paychecks for the last five months. This system was leaking in so many places; it was practically constructed for failure.

Drip.

Drip.

Tears streamed onto my green surgical scrubs. My heart threatened to burst, pounding so hard I was sure it would be overheard. Overwhelmed, I sank into an empty

rust-covered wheelchair in the cluttered corridor, sobbing. This scene would have played out so differently at home. Anger was palpable in the air around me.

On my way home, the crowd still surrounded the burst water main. Now using buckets and bottles to detain excess water, my neighbors made the most of their scarce resources to alleviate the issue. I wondered, who was responsible? Maybe the manufacturing company was at fault for making such weak pipes. What about the driver who ran over the pipe? Maybe the leak was just another consequence of a government failing to invest in infrastructure for its citizens. How could my neighbors, women selling 10-cent bags of groundnuts for a living, solve all these problems?

Likewise, who was responsible for the tragic death of my humble patient? Was it the powerful surgeon, giving commands from the high ground? Was it the overworked nurses, trying to follow the post-op orders from below? Maybe the lack of functioning equipment was to blame. Looking closer, maybe it was the hospital itself, a for-profit institution selling health as a commodity rather than a human right.

The desire to pinpoint blame is powerful and instinctive. Shifting culpability to those downstream makes life easier in the short term, but our ultimate challenge in healthcare is difficult, one that requires moving counter to the current. To ensure quality healthcare in all parts of the world, we must discern and address the core issues fueling the current problems. Though multifaceted, the roots of these networks of blame can be traced back upstream to power and privilege. Acknowledging a steep gradient of personal agency, we must recognize where the streams of privilege have historically flowed.

Drip.

Drip.

Drip.

Privilege and power do not easily trickle down. The memory of my humble patient has inspired me to charge upstream, alongside nurses and neighbors, in more authentic partnership. We must work toward more a cohesive system, one that starts with the problems upstream, in order to stop the hemorrhaging downstream for the ultimate realization of a world with fewer leaky pipes.

Melissa is a 4th year M.D. candidate at the University of Minnesota Medical School who plans to focus her career on global health and social medicine education.



Entrance to the operating theater in the Cameroonian hospital.
Photo credit: Dr. Amandine Schaller

Stigma, a Sex-Change, and a Bank

By *Ambar Mehta*

I followed Mungala through the narrow alleyways of the unsanitary, claustrophobic slum. My senses heightened with a growing fear of my surroundings, a fear only augmented upon finally arriving at the clinic. Used syringes were scattered across the floor, dead insects floated in the water basins, and the odor from dirty bed sheets permeated the air. Mungala, a 17-year old transgender working in the commercial sex industry, wanted a sex-change operation.

I first met Mungala when I helped design a vocational training and microcredit program for the transgendered community in the slums of New Delhi. After learning that begging and prostitution were the main income sources for most transgenders, my team sought to help them develop skills and start profitable ventures. While this initiative failed in the end, the entire experience reshaped my understanding of working in developing communities. Hearing Mungala's story and working with him challenged preconceived notions of mine about those living in indigent communities.

Like Mungala, most transgenders in Delhi are marginalized from society and face pervasive stigma. Schools refuse to accept them and physicians deny them care. Others suffer from physical abuse at the hands of police officers. As a result, it is not uncommon for transgenders to resort to injecting drug use; the cheap price of heroin helps alleviate the mental distress and physical pain that plagues them. My first understanding for how society's discrimination further affected Mungala's access to care came at the aforementioned clinic.

Mungala was approaching an unlicensed surgeon as a last resort for his sex-change. Unsurprisingly, the surgeon possessed no documented certification. The entire cost for this complicated surgery amounted to a mere \$150 dollars, substantiating my concern that Mungala would not be receiving adequate medical care. I begged Mungala not to proceed, but he wouldn't listen. I found out later that after discovering Mungala was HIV-positive, the opportunistic surgeon tripled his price. Finally, Mungala changed his mind.

But what if Mungala had gone through with the operation? Many others do.

The unlicensed surgeon's behavior was the epitome of unethical practice. He took advantage of a patient's social status and charged exorbitantly without the guarantee of either proper medical procedure or necessary post-operative care. This was my first time witnessing the insufficient level of medical care often available to impoverished individuals.

I still could not grasp why Mungala wanted to spend his hard-earned savings on a sex-change operation. Wouldn't investing his money in food, clean water, and necessary medications be of greater utility? My curiousness eventually turned into frustration. Whenever I nudged Mungala to spend his savings on these life necessities instead of his sex-change, he kept dismissing my advice. However, these encounters taught me the greatest lesson during this entire project – to practice what is commonly called 'cultural relativity' when working in developing communities.

Practicing cultural relativity requires understanding that a culture is coherent, rational, and organized within its own context. Pertaining to this experience, it meant outsiders like me needed to first delve further into and comprehend, *without judgment*, the priorities and beliefs of Mungala's community. Looking back, I now realize that pushing Mungala to carry out an activity based solely off of my beliefs resembled a form of unacceptable patriarchy.

I began asking Mungala to elaborate his views regarding a sex-change. For him, a sex-change brought several benefits including reduced discrimination, as he would technically no longer be considered a homosexual in his homophobic community. Others were the opportunity to charge more to his commercial sex clients and improve his social standing within the transgender community.

I realized that Mungala prioritized this operation because of the gains he believed it would have on his financial, social, and personal life. His viewpoint illustrated how medical care, stigma, religion, and societal standing were all interwoven and influential in his decision-making process. It now became clear that when looking at the health of a community, one cannot disregard non-health related social factors and must always aim to understand the community as a whole. With this in mind, another encounter unraveled key interactions between Mungala and his community.

I accompanied Mungala to a local bank; he needed to open a checking. They refused. Quick glances at Mungala prompted bank staff members to shove us from one counter to the next. Frustrated, we requested to see the manager. His nonsensical attempts to send us away culminated in his claim that Mungala carried an invalid identification card – a hollow excuse. Mungala was unable to open a bank account.

Getting denied his right to open a checking account was merely one of many insults Mungala had to endure at the bank. As soon as we set foot inside the premise, countless

unfriendly stares *un-welcomed* us. It was obvious that many never expected that a *hijra*, the local discriminatory term for transgenders, would enter a bank. Some of this negative energy shifted towards me as I associated myself with Mungala. This experience humanized countless statistics about discrimination we all hear and read about occurring in India and in other parts of the world.

Interacting with the bank manager also taught me that impoverished individuals are in a harder position to fight for their rights. Together, Mungala was able to speak to a manager, but if alone, he may have left the bank sooner along with a greater sense of defeat. Those of us in a privileged position to yield change have a moral and social responsibility to advocate for those who have little to no voice.

Even though time pushes these experiences further into my past, the lessons I learned are engrained in my psyche and stay at the forefront of my present-day endeavors. Mungala redefined my professional aspirations, and helped me mature my view on the social determinants of health. His story serves as a reminder of why I want to fight for his right to health. When I left Delhi, Mungala compassionately hugged me good-bye. Now, several years later, I regret the missed opportunity to tell him how much he impacted my life.

Ambar Mehta is a second year medical student at Johns Hopkins. His career aspirations are to work with underserved communities, improve their health, and prevent and alleviate human rights violations.

Bystander

By *Marta Michalska-Smith*

As an undergraduate I traveled to rural Tanzania. The suffering I would witness in this dusty mountain town set among the Udzungwa Mountains of Eastern Africa was in painful contrast to the beautiful landscape and friendly charisma for which the Tanzanian people are so well known. It was against this backdrop that I encountered human depravity in profound ways and had the humbling experience of recognizing depravity within myself as well. Yet, with the help of others, I came away from this experience with a heightened sense of awareness of the importance of community in maintaining ethical standards.

Within the white-washed walls of the wards I witnessed many traumatic events that affronted my conscience. The most terrible of these occurred in the maternity ward. Here, I witnessed a nurse brutally abusing women in the midst of labor. Unable to comprehend Swahili, I was nevertheless able to understand the universal language of violence. The nurse hit and slapped the girls and splashed vaginal blood in their faces, all in an effort to have them push harder. At first, the women would protest and fight against her lashes, but trying to kick the nurse away resulted in a beating to the face, and shouting only encouraged further torments, such as twisting the inner thighs with surgical clamps until they bled. With no family members present to defend them and exhausted from the efforts of labor, resignation would eventually sweep over the girls, and their faces would take on faraway looks—meek and submissive. Somewhere in the back of my mind I recalled a scene from a book I had read as a child, of a horse being broken: lashed and beaten until its spirit gave way.

As the abuse continued for hours, you could have seen me standing by the wall—silent, motionless. Tanzanian doctors and nurses came and went witnessing the same behavior and not intervening, so what right did I have, a foreigner, to do otherwise? Was I witnessing a cultural difference or a sickening crime? The fact that I would try to rationalize, even for a second, that the acceptance of such treatment could be a matter of culture still haunts me. If I had kept this debilitating experience to myself, I believe

I may have remained there—paralyzed, afraid, and voiceless—but I had a confidant to whom I could go: Sister Mary, a physician-nun with whom I was staying. Upon hearing the story, Sister Mary was affronted and encouraged me to share what I had seen at the following morning meeting, in front of the hospital staff. I was sick with dread. So many others, people who were my superiors and part of this community, had witnessed the same behavior. Why did I need to be the one to say something—the one *mzungu* or “white person” among them? Would I not be insulting them and embarrassing the head of the hospital in front of his colleagues and employees? Should I not instead go to him personally? Yet, Sister Mary worried that revealing the situation in private would do nothing to end the abuse, and so trusting in her advice, I did as she suggested, sharing what I had seen with the nurses and doctors the next morning in one of the most uncomfortable moments of my life. After the murmuring died down, I was given assurance that the behavior would come to an end. Years later, my stomach still turns in knots when I recall that meeting, and I wonder if there was a better way to have handled the situation. But more than this, I wonder how it was possible for me to have been so confused, so paralyzed, so impotent in the midst of such atrocity.

As I reflect on this experience, I become increasingly ashamed at my failure to recognize what I was seeing as abuse while it was happening. Was I not a person who was so easily angered by social injustice, who so loudly and confidently spoke out about our shared responsibility? And yet I was there, in the very room where injustice was taking place, and I responded with fear and silence, the result of which was hours of preventable suffering. As I recall my own confusion that day in the ward, I no longer feel so innocent and separate from atrocities that have occurred throughout history and continue to happen today. I am no longer ignorant of the fragility of human nature and the influence of rhetoric and power, nor of my own susceptibility to these forces. It was not until I could reflect on what I had seen with someone else that I found the clarity I needed in order to act. I was humbled and ashamed, but also awakened. I saw with new understanding the importance of dialogue when addressing ethical issues. Sister Mary’s reaction gave me the confidence to know that my inclinations were justified.

The abuses I saw were not acceptable to the people there, and yet there were silent forces at play that allowed it to go on unchallenged. I believe these forces, present in all communities, are the result of institutional norms and expectations, and are perpetuated by a rejection of conversation and dialogue. In order to further unpack my experience, I am attempting the work of naming these forces that so paralyzed me that day in the hopes of coming to understand their origin and what allows them to have such power. I want to be able to recognize these forces in the future – whether as a medical student or a young physician. Medical culture has its own set of institutional norms and expectations, with a strong history of upholding a social contract with the community it serves; one

grounded in integrity, accountability, competence and promotion of the good. Yet, the same culture that upholds these values is also marred with elitism and power, making the profession vulnerable to perpetuating injustice.

Tanzania is not the only place with broken systems. The world of medicine today is plagued with institutional violence toward certain populations and hierarchical structures that allow for abuse and negligence of the most vulnerable. Culture, tradition, and community are powerful forces that can safeguard sacred values, but they can also convince people of their dominance, entitlement, and right to oppress.

Like the women in the clinic that day, in some ways I too was broken. My experience gave me the knowledge that I *can* be broken, and that alone is powerful. As one person up against prevailing systemic forces, I am likely to break again, and it is for that reason that I seek to engage others, not standing alone, but joining in the effort to build a system which encourages and supports compassion and empathy.

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Waiting for the doctor.

Photo credit: Marta Michalska-Smith

Lessons in Walking

By Ryann Milne-Price

Marael and I got bored waiting for the driver to weld the bumper back onto the taxi brousse⁵. Plus, I was tired from my worm medicine, and him from his schistosomiasis, so we decided to go by pirogue⁶ to Evatra the next day. We bought shrimp from the market and walked home to the NGO camp. I was the only volunteer left after a summer of public health work, and Marael – on staff at the NGO – had agreed to travel with me for my remaining week.

As I stirred the tomatoes over the fire, I asked Marael again about spirits. He kept saying, “Later,” and then I would bring it up again.

This time he sighed, “You are too clever, you always remember.”

Spirits, he explained, want you to follow *fady* (in Madagascar, something is *fady* if it is considered taboo; conversely, one “follows” *fady* by avoiding doing anything that is taboo). As a boy, three spirits followed him each day from school to his grandmother’s banana stand. His grandmother was a healer, and she had many spirits working with her. When his mother found out that Marael had started seeing the spirits, she told him to stop following *fady*.

“Life as a healer is too hard,” she warned him.

So Marael ate pork and stayed out late at cockfights. Eventually, the three bright forms deserted him.

After dinner, I went to the latrine to evacuate more roundworm babies. When I came out, Marael was dragging my tent through the sand toward the schoolhouse.

“What?” I said.

“The guard is drunk.”

Marael notices everything. Even when I think I’m being so subtle, he can tell when I’m sick, when I’m scared – he knows what I need before I realize I need it. I imagine

⁵ Bus

⁶ Wooden canoe

that this is what a good father would be like, or a good doctor, although I hadn't yet considered becoming the latter.

We wedged my tent through the schoolhouse door. Across the dimming thatch and concrete, he looked tired. He checked each window lock. Soon he disappeared – as he always seemed to do – to walk the littered trails home.

Between the two of us – Marael was constantly hungry and my newly worm-free body was now ravenous – we spent the majority of our time in Evatra walking between coastal villages in search of food.

His aunt, after selling us sweet potatoes, asked him, “Is this your girl?”

“No,” he said, looking bored, “She’s my boss.”

But later, as we bargained for a pirogue ride, he launched into this longwinded story about how I was his sister from another father, delicately explaining why I’m not really a *vazaba*⁷. Mortified, I hid my John Deere cap behind my wrap skirt, afraid to protest in English and blow our brilliant cover. He pointed to the sweet potatoes I held, explaining in Malagasy: See, she even *likes* sweet potatoes. I shifted behind him like a huge pale elephant.

We decided to set up our tents in a pretty little cove about a mile outside Evatra. On the last legs of our village-walks, when the sun pinched below the sea, Marael gave me lessons in walking by moonlight. You have to feel your way along, he’d say. The grass was silver, the trail black. Everything was in shadow: rock-shadows, wave-shadows, bush palm-shadows. He was afraid to use lights but wouldn’t tell me why.

Skirting one village, the wind picked up. Babies cried and people hurried around with a different energy. Maybe the bandits had returned, I thought, but I didn’t ask him, because I knew what he would answer.

Back at our tents, someone leaned in shadow near our tree-kitchen. I jumped, but Marael greeted him, almost too quietly. It was the old man who lived by the cove. He was wrapped in a blanket, holding his spear. He had come to guard our tents. Up from their house, his wife was carrying a plate of food. Marael and I watched her pick through the dark along the cove, amazed.

As he always did in situations I had no cultural knowledge about, Marael asked me what we should do. Often I amused him by making a few suggestions and watching his reaction. But ultimately I’d have to say, “You know, you can be the boss too. Just say what you think is best.”

He’d get this disgusted look on his face, then:

“No. You need to become more clever, little sister.”

⁷ In Malagasy, *vazaba* translates to foreigner, rich person, or baby. It is most commonly used to mean the first, or so I was led to believe.

This time, we decided to make the old couple a second dinner. We brought it down to their house, proud of our creation despite the rainstorm shaking our tent-kitchen. I fumbled on their doorframe trying to crouch, eject my sandals, and present the food all in one swoop.

Once I gathered myself, I looked up. The old woman sat poised by the little fire, her eyes bright like the sea, like they derived from water.

Walking home along the beach, we watched dark red crabs zigzagging.

"Look!" Marael said, pointing at a pink one. "There's a *vazaba* crab!"

It was unpredictable, the times he brushed over my *vazaba*-ness, and the times he made a point of it. It felt like no matter how close we were to become, it would only allow us to connect at certain points, like the tips of octopus arms kissing.

Once, walking on a busy street, he pulled me away from a hole and said,

"Sorry, niece. Sorry to touch you."

Suddenly angry or brave, I spun around,

"I am not crystalline! I can be touched."

I watched his face change then, amidst the dust and crowd. Was he sad? No, he thought I should be more clever, to know this already. Maybe not crystals, but I am made of something different.

The last day in Evatra, as we walked away from our cove, I said,

"What if I wasn't a *vazaba*? What if I was Malagash? What would I be like?"

He thought about it and said, "You would weave the most beautiful mats in the village."

"A weaver? I'd be a weaver?" I was clearly disappointed. "What about that revolution you want to start to help the coastal people – couldn't I start that?"

"Girls don't become bandits."

We walked along for a while, watching the light fade across the boulders.

"So what would I be, if I was a *vazaba*?" he asked quietly.

Each night Marael would say to me: just wake me up for anything, niece. If children discovered us while we ate, he'd offer the fish we'd spent the whole morning acquiring. Afterward he'd turn to me and say, "Did you see that girl's eyes? It is like: the world is trying to make itself more beautiful while she watches."

I realized, then, how actively he loves people. I wonder how many decades it would take to turn one's focus so entirely on others. Maybe the three spirits made him very old.

"You'd be a doctor," I suggested. "Maybe, a doctor for children."

"You are becoming more clever, sister," he said. "Yes. That is exactly what I would be."

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Cancer and Its Illegal Disparities

By *Ilse Paulina Montes De Oca*

"No, I don't want to die!" I yelled as I jumped off the hospital bed. I vividly remember that moment on November 7, 2000 that shook my entire life, leaving behind shattered pieces filled with sadness, pain, frustration, confusion, fear, and cancer. Quietly and with minimal facial expressions, my pediatrician entered the room, followed by a translator. He sat directly in front of me and said, "I've seen the X-rays and have come to a diagnosis. What she has is not pneumonia, but a cancerous tumor. The tumor is on the left side of her neck and liquid from the tumor has spread out, down her chest and reached her lower abdomen, involving her left pleural cavity and reaching her upper left side kidney, as easily seen in the X-rays." At that time, I was too young to understand the migratory system, and that lacking a social security number or green card would jeopardize whether or not I received treatment.

Twenty-one years ago, my parents migrated to the United States from Mexico. I was six months old and was carried in my mother's arms across the border. My parents placed themselves in a situation of suffering to adapt to a new culture and learn a new language. There was no other option to better my future. Schooling in the United States was the beginning of my understanding of what it meant to be a migrant. My early childhood years consisted of only speaking Spanish, immersing myself in what was left of my Mexican culture, and being placed in English as a Second Language classes. I disliked being surrounded by English-speakers and blond-looking individuals in elementary school. They represented what society considered "American," something I desired to be and was not.

By the time I was diagnosed with cancer, my parents had already embraced American practices into their lives. They had learned to survive despite our illegal status. My parents now worried about the expenses of treatment since the medical coupon was reluctant to keep covering my expenses. My mom was unemployed and my dad had to go back and forth on weekends during the snowy days of November and December. My dad was obliged to commute to maintain his job, as finding another would be difficult with his

undocumented status. While these trips secured his employment, the long commutes put his life at risk. One early morning while driving at 5AM through Snoqualmie Pass, he got into a car accident. His truck slid and turned over several times, leaving him trapped and suspended upside down. It was a miracle that my dad survived after kicking through the back window of his truck.

While I was fighting for my life, I was not only learning about biology and my body, but also about the healthcare system and my denial of access to it because of being undocumented. Long conversations with social workers and lawyers became the norm, but remained unsuccessful. My parents and I were given little hope of citizenship. After applying for legal residency in March 1997, the wait continued. With it came the denial of medical coupons and high monthly premiums of health insurance. Hospital statements became a harsh reality indeed.

I transitioned from a fourth grader learning in a classroom to receiving bedside tutoring. I felt the most comfortable among bald peers. They were the only ones who did not judge me for the way I looked as a result of treatment or discriminated against me due to my lack of a social security number. My schooling was affected. The transitional phase I was living in caused me to fall behind. Fifth grade consisted of weekly absences, fainting, and many hospitalizations. I became known as the “girl with cancer” among my peers, was obligated to wear facemasks to protect myself from airborne diseases, and was the only one allowed to wear bandanas and hats inside the building. School became a challenge to adapt to because I had become so accustomed to being hospitalized and having little peer interaction. Physically, I was disabled, having to fight long-term side effects of medication and having to regularly follow up with a dietitian, physical therapist, and psychologist.

High school had to be completed with perseverance. Academically, I needed to be outstanding to qualify for a four-year university. The fear of not being able to afford college and being aware of the limited funding for undocumented students placed me in a position where I had to cut down my extracurricular activities and turn to employment. After school hours my junior and senior years, 3:30pm-10:30pm, I worked in a Mexican bakery. When there were no clients, I would find myself quickly reading my textbooks, working on worksheets, or memorizing vocabulary words. Finishing my shift at work did not mean rest; instead, it consisted of completing my homework. Senior year, I sacrificed my lunch break and mingling with friends to work on college applications and scholarships. My summers consisted of waking up at 4am to work in the fields tinning apples or working the cashier at warehouse fruit stands. After my shift was over around 2pm, I would quickly shower, eat, and go off to work another 6 hours at the bakery. I placed my health at risk with the exposure to pesticides, but my fear of not reaching my

professional goals was greater. I had never felt so much pain and soreness in my feet; placing my feet in hot water with rubbing alcohol became a nightly practice.

Now, after 12 years of living cancer-free, I am left with lifelong required preventative care and medication for hypothyroidism, which is one of the various long-term side effects of the cancer treatment I received. Possible future side effects including heart disabilities and an increased need of dental care are a reality, not to mention the yearly follow-up appointments. These side effects can have non-retractable consequences if not closely monitored throughout my life, but now actually having those nine digits of my social security number will hopefully ensure easier access to a better future.

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Freedom From Want: Reflecting on Migration and the Brain-Drain Phenomenon

By *Phillip Nguyen*

“So, dad, I’ve decided to go to Saigon.”

“Did you now?” My father asked, pausing for awhile on the phone. “Well that’s good for you. Some how fitting.” He laughed, politely.

The irony was not lost on either of us. I was about to return to Vietnam as an American trained doctor after my father—a Vietnamese doctor—had left the country many years ago. I was completing a cycle of coming and going, I thought, reversing the brain-drain, however briefly. I have often thought of the brain drain — a phenomenon where skilled workers, having been trained in one part of the world, leave their homes for better opportunities elsewhere — through the lens of labor and health economics, where health workers and the services they provide are more neatly reduced to commodities to be regulated and distributed. As I pack for my flight, however, the brain drain began to feel incredibly personal. As researchers and academics, rarely do we ever talk about global migration and its consequences in terms of our colleagues or ourselves.

But I remind myself migration has always been a personal story. My story began not when I was born, but eight years prior, in 1975, at the end of the Vietnam War. My family then lived in one of the many small townhouses nestled within the many twists and turns of the former French colonial city known as Saigon. Much of what I know from that era came from my aunts, who recounted the early days of communist rule as being fraught with fear: fear of past associations, fear of reeducation camps, fear of spies as neighbors. My grandfather supposedly burned many family belongings: from flags, to clothes, to French and English books, mutilating photos of our past, leaving images with headless torsos and severed handshakes. My father at the time was a fourth year medical student in Saigon. When that last helicopter flew from the American Embassy on April 30th, 1975, medical students like him were told to go home. His future and his dreams were put on hold. For a moment there, time stood still for millions of Vietnamese as uncertainties abounded.

When I read about the brain drain, I see a tendency to make sweeping assumptions about societal influences to explain the pushes and pulls that influence migration patterns. Sometimes, that is sufficient. Thousands of professionals, such as teachers, engineers, nurses, and doctors, fled Vietnam in the immediate aftermath and in the years that followed. The big forces, like war, violence, and persecution, are largely responsible for shaping some well known migration patterns. Reducing our thinking of the reasons for migration to macro forces is a reasonable effort toward understanding the phenomenon and advocating for better public policy.

But not all migration result from those readily identified macro forces. My father ended up staying for nearly 20 years only to leave Vietnam in the early 1990s with my mother, sister and me. The forces that kept us were at times emotional, other times familial, and too often, bureaucratic. To this day, I can't fully explain them. But I see these nuanced forces all around me, all the time. As providers, we all have worked with, depended upon, and befriended the Nigerian physician's assistant who uprooted so her children can go to college, or the Filipino nurse who migrated to make more money to support her ailing mother, or say, the Russian therapist who left in search of the freedom to love without persecution.

The choice to migrate is often difficult and subjective. And there's the rub: what pushes and pulls people like my parents—or your parents—to migrate, sometimes at great personal peril, are *often* complicated and personal. They can't all be explained by the macro lenses we use, but that doesn't make these reasons any less powerful or deserving of protection. Reductionist thinking here misses the nuanced forces that influence migration, and make us forget that migration at its core is basic right, a logical extension of the freedom from want and self-determination that form key principles of a free world.

And what about those who stay? To mitigate the effects of the brain-drain, how can we better understand and encourage health workers to stay, not out of coercion but choice? For nearly twenty years, my father was part of the generation that stayed. Collectively, these are the health workers who rebuilt the Vietnamese health system, one vaccine at a time. They humble me with their outsized achievements despite miniscule resources. One doctor I met, now retired, spent his days translating medical texts from English to Vietnamese, piloting breast-feeding public education campaigns, and writing the Vietnamese version of *Dr. Spock's Baby and Child Care*.

I asked him what he and others like him needed to continue their work; what can I do as a doctor to help? Thinking back, various policies to stem the effect of the brain-drain have been utilized, and they vary in complexity and scale: from training more midlevel providers to improving local practice environments. But it wasn't money, it wasn't prestige, it wasn't resources that he said he needed, though I doubt they wouldn't

be welcomed. “A sense of shared enterprise,” he told me. I kept thinking about what he said. He was tapping into something deeper, the sense of connectedness between health providers who have all taken similar oaths to care for the sick and heal the wounded. The loss of connection to one’s colleagues, once they had left, must have been hard. For him, I could only imagine, to stay behind may have felt like being left behind.

This feeling is not inevitable. We have as much a responsibility to advocate for our colleagues across the seas as for our patients, to respect their right to migrate, to push for better practice environments, and to uphold the fellowship that comes with choosing a life in service of others. Through organizations like the Consortium for Universities in Global Health (CUGH), we can build more partnerships, sponsor exchanges, and give existing professionals more access to point-of-care resources and continuing education. These acts can help alleviate, in part, the burden of global health workforce training currently shouldered by developing countries. They also build bridges that bring us professionally closer together. In doing so, we can give voice to the experiences of health workers in policy discussions and humanize the brain drain beyond talks of people as commodities to be regulated and controlled.

I don’t pretend that my budding career in global health is giving back the equivalent of a clinician with 20+ years of experience like my father, but my family history has done much to inform my perspectives. Reflecting on my experiences, I have come to a deeper respect for the work and sacrifices of the generation that left and the generation that stayed, not just in Vietnam, but everywhere. This respect does not mean being naive to the issues of migration. It does mean, for me, an honest evaluation of assumptions and biases about the health professionals with whom I work, here at home and abroad. In the context of the ‘brain-drain’, I am reminded that we cannot mistake health workers as mere commodities. They are people with rights. They are our colleagues. They are us.

Dr. Nguyen is a Global Health Scholar and a senior resident at the Georgetown-Providence Family Medicine Residency Program.

For #133 and CM

By *Samantha Olvera*

It was just another day at work in the tiny African country that became my refuge from the stresses of college life, a place where I could bring engineering solutions to living, breathing people. It is the kind of place that most people know from frequently cited statistics. The life expectancy is about 50 years, the infant mortality rate is 79 per 1000 live births, and there are 170 thousand children living with HIV. But to me it is a place where any Malawian would tell you with a smile that they are “fine, and you?” A place where I felt at home despite the *azungu* (white person) prices I paid for fruit at the market and the amused chuckles that my heavily accented Chichewa often prompted.

Looking over my data that morning was far more emotional than any Excel analysis should be. My fellow intern and I had pored over forms for hours, meticulously documenting all the relevant information to the project. As a result, hundreds of young lives had been condensed into rows of boxes on my screen. A relatively short collection of memories and experiences were reduced to ones and zeroes and subtotals and “additional comments.” Was the data upsetting because the project’s progress was not as I expected? Because the machine that was carefully designed and modified didn’t have higher clinical efficacy? No, not really. The data was not just a measurement of the quality of our own work. It was upsetting because for every “1” in Column H a beautiful life had been lost, and there was nothing I could do about it. Each infant we had tracked in the hospital wards, whose mothers we greeted each day, could now only be identified as a patient number.

Walking down the hall at the hospital that afternoon, I recognized the sad and sadly familiar mourning song of grieving families honoring their loved ones and strangers as their bodies were carted through the narrow walkway. I paused and waited against the wall with the rest. I could see their pain, but I did not understand the foreign words they were singing or the emotions they felt then. It’s an interesting evolutionary trait and survival mechanism of humans to have the emotional capacity to feel true empathy for only a limited number of people. I just knew that their voices sounded beautiful.

In the nursery, I looked around for a missing medical chart for one of the babies. I asked the nurse, and she looked down at him and then at me. “This baby is not with us,” she said, quickly covering him up. This time I felt it. I understood the euphemism, but I’ll never understand why #133 had to leave us.

Later that day, I ran down the hall ready to grab the first doctor I saw. A little girl awaiting surgery in the high-dependency ward had suddenly gone into cardiac arrest and stopped breathing. A doctor began resuscitating her by herself, and there was no other doctor around. She looked at me for help, but standing there with my notebook clutched to my chest, there was once again nothing I could do to help except to find someone who could. I had grown to dislike the phrase “I’m an engineer,” because it meant there was very little I could do in critical situations on the wards.

I found an orthopedic surgeon in the nursery. Confused by my frantic appeal, he did not hesitate to come and try to help save her. I watched the pair for what felt like an eternity trying to bring her back—a young volunteer doctor who would soon return to her own country and a Malawian physician who had not, like many in his profession, fled the country for higher wages and dreams of a better life. I watched helplessly as “CM, age 11, hydrocephalus” became another set of initials in the tables of the Friday morning report.

“The resuscitation usually doesn’t work for older children, but they have to try. It’s to show the mothers that they did everything they could to save the child,” I was later told by a doctor. “Well I’ve been resuscitated three times,” I thought. And I’ve watched a baby return from the fringes of their fragile life, growing as plump and happy as any Gerber baby I’ve seen. So as I stood there paralyzed in a whirl of new emotions, I wasn’t grieving. I was just waiting for those brown eyes to open so she could be with us once more.

Just like the children in the spreadsheets were not just a number to me, the resuscitation is not just a “show” for the mothers suffering one of life’s greatest tragedies. In reality, it is a crucial tenant of solving any global health problem. It’s the idea that one day it just might succeed. And who will ever find out if no one has the courage to try it? If no one is willing to drop everything and give it all they’ve got to help others? And then keep trying even when it seems like a lost cause. To keep trying despite the devastation and tragedy that continues with each failure. The resuscitation is about facing the most difficult situations with persistence and dedicating oneself to every human life.

When I first arrived I wondered, how can a facility lacking everything from basic office supplies like staplers for medical charts, to enough bed space for newborns, continue to function without crumbling from the inside out? I know now it’s because of the people who come back to it every day, holding it up with their bare hands. Knowing it won’t be easy but remembering the miracles along with the tragedies, and knowing

that with every individual effort and every tiny success, there is renewed hope in the warm heart of Africa.

Samantha Olvera is an undergraduate student at Rice University majoring in Bioengineering and minoring in Global Health Technologies.

The Best of Intentions

By *Barbara Pallav*

Everyday, on the brief walk from my trailer home to the hospital, I encountered the bloated bodies of dead toads littering the stone path. Their outstretched tongues stuck to the road like taffy, dried under the scorching South African sun. The HIV clinic was always in various stages of disarray when I arrived, as patients were pricked, prodded, and questioned. “Doctor, we need you to sign these X-ray forms,” the requests initially began, though I was not a doctor—only a medical student on a one-year research fellowship. I would pause during enrollment for my study, happy to sign a piece of paper that would otherwise go untouched for another two hours.

Over time, the number of requests grew. As I walked through the female medical ward and the endless rows of metal cots with half-dressed women, the head nurse asked me to see two patients since the ward doctor had left hours earlier. One woman grabbed my arm and pointed at her legs. “I have HIV,” she said. “And TB. Look at my legs.” I looked. They were swollen, the skin taught under pounds of accumulated fluid. I gently pressed; she winced in response, staring at the resulting indentation. Surprisingly, there was no mention of her legs in the chart. No workup, no evaluation. Her neighbor was a woman aged by her misery. Her skin clung to every rib. I feared she might break if I tried to move her. She writhed in pain, but the cause was unknown. The pharmacy was stocked with painkillers, but few of the patients had been prescribed any by the young doctor who staffed the ward. And so, I evaluated the patients and prescribed them medicines not because I was a doctor, or confident in my medical skills, but because there was simply no one else to do so.

I started helping the lone HIV clinic doctor, seeing patients who would otherwise be turned away. I oriented the endless stream of visiting residents and fellows, often catching their errors – teratogenic ARVs prescribed to pregnant women, incorrectly calculated pediatric dosing, and missed tropical diagnoses. I reassured myself that by that time, I at least had more experience than the emergency medicine resident charged with running the HIV ward without ever seeing an HIV case before, or the heme-onc fellow who had

been delegated the pediatric HIV clinic. I was confident that patients were getting better than medical student-level care, at least compared to the alternative. I maintained this belief until I met Shezi Ndlovu.

On a balmy Spring morning, Shezi bounded into my poorly ventilated examination room for her routine follow-up. She never missed an appointment, scraping together the necessary money to make the two-hour journey to the local district hospital each month. She was 34 years old, widowed, and HIV-positive. She had a cough, despite being on treatment for tuberculosis. I reviewed her chest X-ray, which was suspicious for a new cavitary lesion. Because I was practicing in a region with some of the highest rates of multi-drug (MDR) and extensively-drug resistant (XDR) tuberculosis in the world, I ran her case by a senior clinician and referred her for empiric MDR-TB treatment. I saw her every two weeks for follow-up, horrified at her continued weight loss, anorexia, and weakness at each visit. I stopped her ARVs when she developed jaundice and hospitalized her in the MDR-TB ward. I visited her every day after clinic to spoon-feed her daily meal.

On a quiet Monday morning several weeks later, I arrived on the ward and found only an empty bed. Death arrived quietly in South Africa, claiming bodies daily and leaving behind only crisp sheets stretched across empty cots. Doctors were not called. There were no morbidity and mortality conferences. If you happened to be near the morgue, you would occasionally overhear Zulu funeral chants as relatives carried their dead home for burial. Shezi had died, as I knew she would. But all I could think was that I had killed her. That in my eagerness to avoid another untreated MDR-TB fatality, I had made an empiric diagnosis and started her on multiple toxic medications. To this day, I still don't know what caused her death.

Most of the American students and residents I encountered in South Africa came to do as much as they could. They put in countless hours, sometimes seeing patients long after the local doctors had gone home. They tried to make sense of the poorly charted records of patients they encountered and figure out next-best alternatives when crucial medications ran out. It is impossible to be confronted with such tremendous need and simply turn away. Even now, as a Global Health Fellow with years of experience, I struggle with the moral ambiguity of daily clinical decisions—when to start empiric treatment for disseminated TB in critically ill patients, or the risks of diuresis when we have no way to monitor for electrolyte disturbances. I look back upon my medical student self and realize how ill-equipped I was then to evaluate my own limitations and those of others. The deaths that I witnessed, left alone to see patients and make decisions far beyond my expertise—those are the ones that still weigh on my soul. The ones where I wonder, if those patients had never met me, where they may be now.

We convince ourselves that something is better than nothing, and that good intentions will overcome lack of supplies and mentorship. And yet, for years American programs

have recognized and mandated that trainees require ongoing supervision. As global health programs rapidly expand, I can only wonder when we will start applying the same standard to them.

Barbara Pallav is a Fellow at University of California, San Francisco.

The Local as Global

By *Ashish Premkumar*

After working in global health and community development for the past seven years and on two continents, I've seen the practice of students going abroad to do clinical and community service work blossom. Reflecting upon my involvement in the care of an HIV-positive pregnant woman in rural South Africa with another medical student, I noticed that he would use "international" to describe our patient's suffering and eventual death from complications of end-stage AIDS. "International," he kept saying, as if to bracket that piece of earth and its inhabitants squarely away from the boundaries of home. It was unnerving to see the line so clearly drawn in the sand – there was us, and then, out there, was "them."

Though many involved in the care of vulnerable and marginalized populations often chalk this problem to a matter of semantics, I consider this example to be a small window into the far too common manner in which we as medical students and physicians perceive our patients in the United States and abroad. The concept of "international" and its dividing connotations quickly lost meaning to me during my medical rotations at Boston Medical Center, where I encountered patients like a dialysis patient who had sought asylum from Sudan and a pregnant woman from the Democratic Republic of the Congo. I found myself face-to-face with major global health issues, including those of human rights abuses, violence, and structural inequality, without even having to leave Boston.

While individuals from other parts of the world may come with unique life and health backgrounds, and while many of us spend our careers working where structural, economic, political, and gender-based challenges are more often discussed than they are in the United States, we must be careful to not use "global health" as a dichotomous term. I acknowledge that as someone who grew up in the United States, it is easy to view global and local issues as separate entities. One could consider the stories of patients I have cared for in the past – a Tibetan monk tortured by members of the Chinese government and a Caucasian woman abusing crack-cocaine in her third trimester of pregnancy. I could draw a geographic line between the issues, saying the former is relegated to the

“outside world,” and the latter is squarely in my community. However, I urge those who are both working and retain an interest in global health to view the local as global and vice versa. At Boston Medical Center, I have seen a number of patients who have spent most of their lives in the neighborhoods of Dorchester and Roxbury. These areas are known throughout the city for their dense minority populations, violence, patterns of substance abuse, and social malaise, compounded by years of structural inequality, poor civic planning, and socioeconomic apartheid. Though manifestation of such issues is complex, injustice and inequality promote pathology regardless of geographic location.

The global and the local, despite considerable differences, feature similarities that can teach us a lot about issues going on both in our backyard and ten thousand miles away. Even though the need for good health is universal, the “global” in the term “global health” is often overemphasized, masking the overlap of global and local. This emphasis on “global,” rather than on “health,” is what creates the undue sense of otherness and inferiority when we speak of different parts of the world. Human rights abuses, genocide, and violence are not just facets of life outside of my local community in Boston, but find themselves reproduced through our history and institutions. Moreover, the way individuals exposed to these horrific acts interact with systems of care unmasks, oftentimes strikingly, the inequity of life in the United States. Allowing such self-reflection in the discussion of health both at home and abroad not only dissolves the perceived gap between us and them, the global and the local, but also, and perhaps more importantly, prepares us to pursue scientific and social inquiries that will provide better care and support to our patients and communities.

Ashish Premkumar is a student at Boston University School of Medicine.

Made from Corn

By *Abi Struck Marcell*

“After that they began to talk about the creation and the making of our first mother and father; of yellow corn and of white corn they made their flesh; of corn meal dough they made the arms and the legs of man. Only dough of corn meal went into the flesh of our first fathers” - Pop Wuj

This story describing the beginning of humanity comes from *Pop Wuj*, the sacred Mayan book that contains mythological and historical stories originally passed down through oral tradition. In the creation story, humans are only successfully created from corn, or maize, after three failed attempts to create humans from animals, earth, and wood. In the end, humans could only be molded from corn.

An anthropological observation contends that civilizations and cultures revolve around a grain, and that corn is the grain of Mayan culture. Though not all Guatemalans may be familiar with the creation story, corn continues to play an important role in the lives of Guatemalans today. Corn finds its way in artwork, is carved on gravestones in cemeteries, is eaten in different forms at most meals, and is cultivated on vast expanses of land. Guatemalans imbibe the notion that they are literally made of corn. It was through the lens of corn that I viewed the health of the patients and communities I saw as a medical student first on rotations throughout Iowa and then on a two-month clinical rotation in Guatemala.

Gentle, Rolling Hills of Iowa

Before leaving for Guatemala, I spent a month working with a family doctor in a small Iowan town, where I saw the connection between the land, food production, eating habits, and associated health. It seemed ironic to me that in a land of such rich soil, people were consuming predominantly processed foods, white bread, meats, and soda. Most of the corn produced was being converted into high fructose corn syrup, used in processed foods, animal feed for meat production, or ethanol to run cars. In general, patients in the clinic were not eating enough vegetables, whole grains, or fruits. The most common

issues I saw were related to lifestyle. A serious progression of health problems usually began with obesity, leading to diabetes, hypertension, non-specific musculoskeletal pain from increased body inflammation, and back or knee pain from the stress of created by excess weight.

The drought that affected much of the United States turned Iowa's once-green fields yellow and brown, and became one of the most heated topics of conversation. The decrease in production compounded the stress of living in a rural community and heightened already high levels of anxiety. Whether directly working on a farm or not, everyone seemed connected by the cornfields. The life and vitality of the fields was closely tied to the entire community's well-being.

Corn Cultivation

The most common type of corn grown in the United States is dent corn, which is used for animal feed or ethanol production. Flint corn, grown for human consumption, is the most common type grown in Central America. Not only are the types of corn and the way they are eaten different in Iowa and Guatemala, the way corn is produced bears a split identity, resulting in various health consequences.

Corn plants deplete soil of nitrogen, making it necessary to plant corn alongside another plant capable of returning nitrogen back to the soil. In the United States, this is achieved through planting corn in a field one year and soybeans in the same field the next year. Large fields are planted and harvested with machines, and a farmer's work generally involves a lot of mechanics. During my time in rural Iowa, I saw several patients with machine-related injuries, from deep hand cuts to small pieces of metal lodged in their eyes.

In Guatemala, corn is planted with black beans or fava beans, both plants that climb up the stalk of corn, making it possible to plant them together during the same year, each year. All the cornfields are planted, cared for, and harvested by hand. Unsurprisingly, generalized pain, and osteoarthritic pain, is very common, even in young harvesters. Unlike in the United States where this pain can often be attributed to obesity and decreased physical exercise, in Guatemala most of my patients experienced generalized, musculoskeletal pain from wear and tear use incurred during physical labor, whether they were farmers or women caring for their children and homes.

Life in Guatemala

As previously mentioned, corn is the staple food in Guatemala, and is usually present at every meal. It is eaten in various forms, such as corn on the cob, corn dough made into tamales, ground corn made into tortillas, and corn mosh. Eggs are also widely consumed. Meats are more expensive, but usually eaten once a day in middle-class

families. Vegetables are also more expensive than the other offerings. People would dilute the rich coffee taste with mountains of sugar, perhaps to ease the pain of wear and tear from physical labor.

In the clinic, I was able to connect these eating habits with visible health concerns. The majority of problems were related to lifestyle: diabetes and subsequent neuropathy, hypertension, generalized musculoskeletal pain, gastritis, and malnutrition or under-nutrition. These problems are all commonly seen in the United States and related to lifestyle, though the lifestyles are very different. In Guatemala, excessive amounts of refined sugar and carbohydrates in corn, with little protein, create a platform for diabetes, and related hypertension. Gastritis or gastro-esophageal reflux symptoms appeared to be most common after patients had eaten black beans; making picante a likely culprit. Under-nourishment and vitamin deficiencies resulted from lack of adequate protein, vegetable, and fruit consumption.

Many Guatemalans living in poverty subsist on a diet containing only corn and black beans. About 50% of children in Guatemala suffer from chronic malnutrition that begins *in utero* with undernourished pregnant mothers. Chronic malnutrition leads to poor development and growth, including cognitive and mental slowing, and decreased immunity. The most common cause of death in Guatemalan children is from respiratory infections and diarrhea due to gastric infections. Another 15-20% of children suffer from acute malnutrition. Sadly, Guatemala is the only Latin American country that has failed to decrease its malnutrition rates in the last decade.

I remember a six year-old boy who came in with his mother complaining of bilateral knee and leg pain. When I plotted his height and weight on his growth chart he was under the norm for his age, a regular occurrence I came across nearly every day in the clinic. Stunting is extremely prevalent in Guatemala, and often goes unnoticed when everyone in the community is suffering from malnourishment. I looked in his mouth and found multiple dental caries. Almost all of the children I saw had dental caries, most likely related to high sugar intake and lack of fluoride in the water.

An 11 year-boy complaining of dry skin and lips asked for sunscreen and chap-stick. I asked him how many glasses of water he drank a day, and he replied that he had about half a glass a day. A 33 year-old woman came in with headaches and told me she had about one glass a day. Since the water system is often contaminated with bacteria and parasites, people have learned to drink as little as possible to avoid acute infections, but as a result have ended up with other problems related to dehydration.

Fiesta de Maize

There is a farming community in Guatemala that benefits from many projects by the non-profit organization I was working with. As a way of saying thank you, every

year around harvest time they invite everyone from the organization to come to their community for a corn feast, a Fiesta de Maize. They prepare a huge amount of corn on the cob with ketchup, picante, mayonnaise, lime, and salt to put on the corn. I was fortunate to be there during this event, when a leader of the community gave a speech.

He explained that the community was very grateful, and that the feast was a sharing of their harvest crop, the same way the organization shared their harvest with the community. He told us that within the organization different types of people are able to join and work together to accomplish so many things. Even though we had many different religions, beliefs, and lifestyles, these differences did not exist with the sharing of the harvest. We all sat around the large table, contemplating these words, crunching the multi-colored corn in our mouth. The yellow corn and the white corn making up our bodies, our flesh; eating till we felt the bulge and swell of our stomachs telling us we could eat no more.

Abi Struck-Marcell is a student at University of Iowa Carver College of Medicine.

Moving Between Two Worlds: Global Health Volunteering and the Return Home

By Kathleen Miller

Here, in the largest public hospital in an impoverished country in Central America, my medical training has been rendered almost useless by the differences in the approach to patient care. There is no child life specialist when we put in IVs, with an iPad filled with distracting games. There is no Versed for sutures – only strong and skilled nurses who can hold a screaming child. Instead of giving Tylenol for fevers, we first strip off the clothes of the children and give them a cold bath in an attempt to save medication for those who need it most. There are no chest X-rays for pneumonia, only clinical suspicion and acute physical exam skills.

There are still respiratory infections, coughs and colds (especially now, in the rainy season). But there is also dengue, malaria, and leptospirosis. Diarrhea is not the benign annoyance that it is in the United States, but a potentially deadly disease.

As I sit here writing this, I am in the hospital's pediatric emergency room. It is a large room, with desks and chairs packed as tightly as possible on one side, the single exam table in the corner, and a plethora of mismatching cribs and beds crammed onto the far side of the room for the patients who are waiting to be admitted. We use the same broken thermometer for all patients, and hope that maybe it will be correct. The hallway is filled with patients lining the walls. Some are standing, some sitting in the limited number of chairs, and a handful (the very sick) lying on cots. Armed guards with rifles wander the halls. A mural depicts a man with a gun standing on top of a pile of bodies, opponents defeated during the recent civil war.

To me, the mural is a constant reminder: life is fragile here. It is considered less of a God-given right, and rather a privilege denied to many.

I am a seasoned traveler. My first experiences in medicine were not in the pristine halls of my medical school, but in the surgical ward of a public hospital in Honduras. I went on to work in Peru, Argentina, Mexico, Guatemala, Haiti, Brazil, even as far as Tanzania. I am no stranger to culture shock, or the disarming sensation that I am moving through different worlds.

My world in the rural state of Iowa is where my life is. How can it be that that world – the one where I drink lattes and spend thirty dollars on a haircut without batting an eye – can exist parallel to the place I find myself now? If I separate them, and treat them as two entirely unique and unrelated entities, my life is more peaceful. I can sleep soundly, knowing that my latte will be waiting for me when I go home.

But they are *not* separate worlds. They are the same. And yet somehow, we live in a world in which I, by an accident of geography, can drink lattes while children here waste away from malnutrition.

How can I justify my “medical tourism”? I want to learn, about medicine and about the world. The Spanish I learn in many of these countries will help me better serve patients when I return home. My intentions are noble, at least.

But where does my responsibility to the patients I see here begin and end? To that end, how can I even begin to defend my comfortable lifestyle at home?

The differences here are stark. But the hardest part of trying to move between two worlds isn't managing the difficulties of being here. It's trying to return to the world I grew up in. It seems impossible, when this experience is so fresh in my mind. I've done it before, so many times – and yet each time, I wonder if this is the time that I might not be able to do it.

What's the compromise, then? How can I live a reasonably “normal” life (relative to my upbringing in the United States) when I am uncomfortably aware of how the majority of the world lives?

I don't have any easy answers. I can only share what I have discovered from my other travels, which even I don't find especially comforting right now.

The things I learn here will serve me. They will make me a more empathetic physician. They will influence how I choose to spend my money in the United States – perhaps I will buy from a sustainable source, or spend less on myself and give more to charity. They will change the way I bring up my children (for the better, I hope). I will see patients who come from other countries, and I will be able to better relate to them.

Perhaps most importantly, I will live my life with gratitude. I will avoid the sense of entitlement that I find so off-putting in many of my peers. I will happily pay my taxes, knowing that I am paying for our collective ability to live comfortably and take care of one another. I will even be grateful for my student loans, which have given me the opportunity to learn and to serve. I will know how incredibly fortunate I am to have been given so much. I will think about the children in the emergency room here, and remember how incredibly fragile life is – and remind myself that to live is a privilege, not a right.

Kathleen Miller is a Pediatrics resident at the University of Wisconsin, and a graduate of the Carver College of Medicine at the University of Iowa.

Enhancing Breast Cancer Awareness While Being Culturally Sensitive

By Jagdish Ramlingh

Breast cancer is one of the most common cancers affecting women globally. Though significant advances have been made in the screening, diagnosis, and treatment of breast cancer, considerable social and cultural barriers limit the level of awareness for screening in many Asian countries such as India.

There are numerous articles and research papers which indicate that, due to the social stigma attached to open discussion about breast health, women in India are often too shy or embarrassed to share discoveries of breast abnormalities such as a lump. They hope the lump subsides on its own or try home-based remedies instead of visiting a physician. This has resulted in 30-40% of cases being detected in late stages beyond any possible curative treatment.

One measure to minimize late-stage detection is conducting adequate awareness campaigns. Unlike the United States, there are hardly any mass awareness programs or advertisement campaigns promoting periodic mammograms in India. Efforts to create more awareness platforms have been hampered by pragmatic fears of objections from government bodies and of offending cultural sensitivities. For instance, in October 2012, a regional municipal corporation in Mumbai, India's largest city, objected to postings intended to draw attention to breast cancer awareness. The corporation deemed the images in the postings to be socially unacceptable because of the objectionable depiction of bras.

Alternative measures for creating mass awareness must be taken. While I was working on a breast cancer project in Tamil Nadu, a state in South India, physicians expressed that upon discovering abnormalities in their breast or reproductive system, women in India usually approach their family obstetrician/gynecologist (Obs/Gyn) rather than a cancer specialist. Women typically visit the Obs/Gyn who has previously treated them during childbirth or other contexts, and who they already trust. However, most of the Obs/Gyn in India are not trained to adequately detect breast anomalies and

do not generate enough awareness for breast cancer. The problem is further worsened by the substantial demand for Obs/Gyn. With a high population in the country and a significant number of patients visiting a child-birthing center, the majority of Obs/Gyn are overburdened and work exhausting hours. This does not allow them to dedicate time to spreading breast cancer awareness among the large number of women visiting them.

However, the necessity for effective methods for raising awareness remains. One potential solution lies with the nurses and female staff working with the Obs/Gyn. They are in constant communication with many women visiting the clinics and hospitals. The continuous interaction has allowed the nurses and female staff to build trusting relationships with a large number of female patients. This strong, existing relationship can be leveraged as a platform to spread knowledge to the patient, her friends, and relatives. Utilization of word-of-mouth, posters, and pamphlets in the Obs/Gyn clinics and hospitals, combined with the assistance of proactive nurses and female staff, can help create substantial mass awareness.

Another issue that needs to be resolved is the low adoption rate of mammography equipment in diagnostic centers. In India, many doctors including Obs/Gyn practice in private clinics. They generally do not have diagnostic X-ray systems and usually refer their patients to private diagnostic imaging centers. Interviews conducted at private clinics and diagnostic centers in urban and semi-urban regions in Tamil Nadu revealed a vicious cycle that has barred the adoption and penetration of mammography equipment. On one hand, a common reason cited by diagnostic centers for not having mammography equipment is that they do not receive adequate prescriptions for mammograms from doctors. On the other hand, many doctors indicate that one of the reasons for not prescribing a mammogram is due to many diagnostic centers lacking appropriate mammography equipment. They claim that even if they prescribe a mammogram, many patients would not have the mammogram done.

Formation of public-private collaborations between major manufacturers of medical imaging systems (e.g. GE Healthcare, Siemens Healthcare) and national governments may help address this issue. These companies, in addition to installing mammography equipment, need to take a more active role in helping diagnostic centers publicize the availability of mammography equipment to the nearby referring clinics. This can increase the sales for the manufacturing companies as well as benefit the diagnostic centers by increasing the volume of mammograms, creating economies of scale, and reducing the cost for patients. A 'hub and spoke' model can be a good option in this case where the diagnostic centers form the hub and small clinics form the spoke. The clinics can direct their patients to the diagnostics hub.

Though there have been several successful mass campaigns to eradicate diseases such as polio and small pox in India, the fight against breast cancer has been timid and weak.

India's National Health Profile 2011 indicates that breast cancer will overtake cervical cancer as the most common type of cancer in India by 2020. With the rising incidence of breast cancer in India and problem of late-stage detection, there is a significant need to adopt innovative ways to increase the awareness of breast cancer in a culturally sensitive way. Spreading awareness through nurses and women staff working with Obs/Gyn, as well as the formation of private-public partnerships to increase access to mammograms, could be effective in preventing this disease.

Jagdish Ramlingh is pursuing a Master's in Business, Entrepreneurship and Technology from the University of Waterloo.

Empowerment in Global Health

By *Jessica Ray*

A thirty-something-year-old man sat in front of me, hunched over, head hung low. His face was worn and tough from years in the sun, his hands leathery and dirt stained. He wore a thick, colorful sweater made of alpaca wool, torn pants, and over-sized work boots. But under all those clothes and behind the leathery skin, he seemed frail, fragile.

I introduced myself, shook his hand, which was quite clammy, and began asking him (in Spanish) about what brought him to our clinic today. Almost immediately, his story was not the same as the ones I had been hearing all morning - back pain, heart burn, headaches. Instead, he slowly began to give me a detailed story about a cough that wouldn't go away for the past couple of months. He described it as a deep cough that came from inside of him. The cough hurt his entire body. He went on to say that he regularly produced sputum. Recently he had seen blood in his hand when he coughed the other day. He was frightened by the blood. As I asked him more questions, I learned that he was no longer hungry and was having some difficulty carrying the 75+ kilogram blocks at his job on the construction site. Additionally he had night sweats and his clothes were now too big for him. He had recently started a job in the more urban town, but still traveled home to stay with his family on the weekends. The more I listened to his story, the more concerned I became.

On closer physical examination, his face seemed to be sunken and pale. When I listened to his lungs, I immediately noticed decreased breath sounds. When I had completed the interview and the exam I politely excused myself from the encounter, leaving the man to sit alone on a desk chair in the corner of an open one-roomed school house with dirt floors and glass-less windows that the group had temporarily turned into a make-shift clinic for the day. I walked across the room to consult with the attending physician. I methodically presented the history and physical as I was taught in school, and watched as a look of concern gradually crossed over his face. We both knew exactly what was going on - it was a classic presentation of TB and we were in an endemic area. However, we were at a loss of what to do. In this remote mountain town of the Sacred

Valley of Peru there were countless obstacles to his care: the nearest local physician with resources to treat TB was over 150 km away, transportation was infrequent and unreliable at best, and a man's labor is essential to his family's well-being. Not to mention, since we were a transient, foreign, medical mission providing temporary medical care he was not linked into the local system and was inevitably going to be lost to follow-up. It seemed nearly impossible to provide adequate care for the patient. As such, I was left with one option. I slowly walked back over to the patient. I carefully explained his potential diagnosis in the simplest terms possible and tried to convey what it meant for him and his family. But while I could calmly tell him about the likely disease, I could not provide him with any means of care. There was a look of confusion and hopelessness on his face. I felt helpless.

When I reflect back on my three weeks spent on a medical mission in the Sacred Valley of Peru as a first year medical student, this patient and his story is what I remember most vividly. Sure I remember the children who loved to play with bubbles and the songs they recited about brushing their teeth and the looks of amazement on the old men's faces when they put on a new pair of glasses. But what really sticks out is the feeling of helplessness I experienced as I shook the hand of the man who I knew was going to die of TB without any medications or follow-up care.

In the world of short-term global health initiatives and projects, everyone wants to do the right thing. The problem is, it's often difficult to determine what exactly is the right thing. What I have taken away from my experience is that we must be careful about what we choose to do and how we choose to do it. We cannot practice outside of our means, we cannot diagnose patients if there is no appropriate treatment available or no appropriate coordination with local health care professionals, and we cannot support unsustainable efforts that temporarily fix the problem on the surface without addressing the root of the issue. These practices ultimately do not help the local people, but instead lead to perpetuation of underlying problems, encourage dependence on outside forces, and eliminate empowerment.

I now better understand the importance of considering both the significance and impact of our actions in the context of the local people and their needs when planning and executing short-term global health initiatives. We must always keep in mind the needs and wishes of the locals, which are not always the needs that we foreigners identify or harp on. Additionally, it is imperative to focus on the best ways to improve the lives of those we are interacting with long-term, not in the moment. For this reason, education initiatives that incorporate locally identified needs and knowledge have the most promise and ultimately the most impact.

Upon returning from Peru this past summer, I have worked to restructure our medical student run global health initiative. We will no longer be conducting one-day

clinics in remote towns, practicing outside our means and outside the local medical system. Instead we will be hosting symposia for local physicians in more urban settings, leading workshops for the lay health care workers in the more remote towns, and organizing educational efforts for community members and students, all with focuses on locally identified concerns and needs such as STI education and oral rehydration. We hope that these efforts will empower the people of the Sacred Valley – physicians, lay health care workers, and community members alike – to take control of their own health care and gradually improve their quality of life without creating dependence on outside resources which are typically short-lived and frankly not guaranteed to continue year to year. Ultimately, while we may not be providing short term relief, we will hopefully be providing sustainable means for long term progress.

Jessica Ray is a third year medical student at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University.

Falling

By *Nora Rosenberg*

At 8:45am, I received a call from my colleague Daniel asking if we could move our 11am meeting up to 9am. When he called, I was lying on my back with the curtains drawn and my eyes closed. Earlier that morning, I had woken up with diarrhea; more accurately, I had woken up with diarrhea *again*, the fourth day in a row. Lying down was helping my stomach settle, and by the time Daniel called, I was feeling somewhat better. I agreed to be at his office in 15 minutes.

Daniel worked at Lighthouse, a state-of-the-art HIV clinic in Malawi. I lived in a guesthouse on the same campus, a 3-minute walk away. As I left my guesthouse, the sun was already high in the sky. I squinted to adjust to the brightness and became sweaty on the brief walk over. I feigned normalcy as Daniel described the home-based care program, which sends nurses to communities to care for chronically ill patients and organizes volunteers to support HIV-positive people on therapy. I tried to engage—taking notes and asking questions—but my GI tract was off. I decided to excuse myself and reschedule.

Daniel looked puzzled. We discussed possible future meeting times, but I was unable to focus. I got up with a small head rush and began to walk home. As I turned the corner to the outdoor corridor, I felt the sun burning a hole through my forehead and began feeling dizzy. I crouched to let it pass, to no avail. A nurse walking by helped me find a seat. I realized I would feel even better if I lay down.

I was in the middle of a dream when I felt a firm finger on my wrist. Chris, a physician from the United Kingdom, was taking my pulse while a nurse was steadying my shoulders. I closed my eyes and lay back down. When I reopened my eyes, Chris told me I had fainted twice. I explained that on the previous Saturday, I had thought my bout of diarrhea was over and consequently went dancing. On Sunday, I had played Ultimate Frisbee in the hot sun for two hours and had forgotten to bring water. I emphasized that I was fine and just needed to hydrate.

I wanted to go home, but Chris forbade this and told me I needed to be admitted. He asked if I preferred Lighthouse or UNC Project, my own workplace one parking lot away. I was torn between the guilt of taking up a bed of a truly sick HIV patient if I chose Lighthouse and the embarrassment of having to explain this to my coworkers if I chose UNC. Before I could decide, Chris chose UNC for me. When I arrived at UNC, concerned colleagues came over to find out what was wrong. One colleague escorted me into the bathroom and was instructed to wait for me. When an exam room finally opened up, the Director walked by and asked what I was doing on an exam table. My clinician turned out to be my student and I had to describe in full detail the color, consistency, and frequency of my bowel movements and was asked to provide a stool sample.

I took Metronidazole, a medicine effective against several bacterial and amoebic infections. I drank fluids and rested. And though I never learned what I had, I recovered in a few days and knew it was a minor blip in my life, one that got blown out of proportion by the poor decision to leave the guesthouse.

I wanted to leave the incident behind me, but in the days that followed, colleagues at both organizations gave me penetrating looks of concern. Our housekeeper encouraged me to rest whenever she saw me standing up. Our administrative assistant was perplexed when I told her all I had was GI trouble. And when I finally did go out with Daniel's community workers, they were surprised to see me alive. They repeatedly asked if I had recovered from "when you fell."

I only began to make sense of the intense concern in the weeks following. I learned that in the same week of my incident, a colleague in her mid-thirties had lost her younger brother. She described him going to the doctor with a headache, not finding anything wrong, and never waking up. The following week, at the second day of an HIV/AIDS meeting, we stood for a moment of silence for a colleague who attended the first day of the meeting, and who had passed away before the second. And when I went to the community with the home-based care team, one of the young patients, who had been seen on Thursday and started a new treatment regimen on Friday, had died on Saturday. I shared this with a colleague who shared a story of an adolescent family member who was perinatally infected with HIV, but did not know it. Her family was going to tell her after her exams, but she tragically died before they had the opportunity. In the United States, such stories are rare occurrences. In Malawi, they are far too common.

Life proliferates profusely in Malawi. The countryside goes from "dust to lush" after a few big rains. Women are breastfeeding one baby when they become pregnant with their next. Lettuce grows from seed to leaf in days, producing salads for weeks to come. Beans develop pink slime after a day on the hot counter. And organisms reproduce in my digestive track until Metronidazole takes hold. But on the other side

of this vigorous proliferation of life, death lurks quite closely. All Malawians have witnessed seemingly healthy loved ones fall and not awaken. During my brief sickness, I never felt scared that I would not recover. But from the looks on others' faces, I felt that shadow a bit too near.

Nora Rosenberg is a Fellow at University of North Carolina.

Reflections of an Initially Ambivalent Volunteer

By Jennifer Rosenbaum

“What did you do this summer?” Oh no, here it comes. “I went to Haiti.” “Oh, cool. What were you doing there?” “Volunteering ...”

A now-familiar barrage of questions inevitably follows. “Oh that must have been such a great experience! Was it so sad? Was it amazing?” Over time, I began to shy away from talking about my summer experiences just to avoid explaining how bizarrely ambivalent I was about what sounded like a selfless mission of mercy. The truth, of course, is more complicated.

I spent the better part of my first year of medical school trying to get to Haiti for the summer. I tried public health projects, clinical sites, and research studies in search of any place that a first-year with no Creole but decent French could be of use. I wanted to avoid just claiming to contribute while experiencing an exotic locale. I would never assume I’d be able to give back as much as I was getting; that equation never seems to balance out in international work. But I was hoping to be more than just a tourist.

After nine months of frustrated attempts and false starts, I found a small organization that was thrilled to have me, albeit less for my larval medical expertise than for my background in early childhood education, teaching abroad, and briefly running a site at summer camp. I had my doubts about the program as one of its goals was “to teach Haitian mothers how to parent their children better,” which sounds thoroughly politically incorrect, but they were offering me the chance to go to Haiti with the very real responsibility of overseeing a project for a few weeks. It was sudden fortune thrown my way and I took it without asking too many questions.

Admittedly, I had never been so inadequately prepared for an international trip in my life. Five weeks seemed like nothing compared to the year I’d spent living in Africa, so I skipped out on the heavy pre-research and managed to forget many “essentials,” like a flashlight and bug repellent. I skimmed a textbook on Haitian Creole, telling myself I’d study it in Haiti, where I would have a full immersion language experience. I envisioned myself returning to the U.S. fluent in the new language and able to expertly care for

the Haitian patients I was certain to encounter in my third and fourth years of medical school. However, I was deeply mistaken.

This was a project on a smaller scale with six kids rescued from abusive orphanages and placed into a beautiful house with their mothers. (Orphanages in many parts of the world don't necessarily mean a lack of parents, but rather that the parents cannot afford caring for their child. This is the case in Haiti.) I had worked with tough kids before, but never kids as tough as these. The scars of years of deprivation were evident in their constant attention-seeking behavior, undersized bodies, and learning delays. I wished many times for more knowledge – better Creole to communicate with them, training to cope with the learning delays, and an understanding of developmental psychology in order to discern where the delays ended and the learning disabilities began. Because I was a medical student, I was immediately thrown into the role of health caretaker. I monitored daily medications, tended “boo-boos” small and large, and accompanied one child with chronic kidney stones to the local clinic. I often felt overwhelmed as a result.

Slowly, I learned. I learned how much to discipline, how much to forgive. I learned enough Creole to make myself understood – if nowhere near enough to fluently understand or speak it. I began to understand the goal of “teaching Haitian mothers to parent their children.” Never have I met children so desperate for a hug, a kiss, or any kind of attention. They screamed as if dying at every tumble and fought with one another if they caught you looking the other way – and small wonder when these overreactions appeared to be the only time their mothers paid attention to them during play.

Through it all, I was exhausted as deeply as I have ever been. There was rarely enough food for anyone to eat his or her fill – never as much protein as I was used to. In the end, I learned more about pushing myself to take on new responsibilities than I did about Haiti and Haitian culture. I rarely went more than walking distance from our house, and if I did it was not to immerse myself in the heart of the Haitian countryside, but to relax and buy a hot meal in an upscale suburb of Port-au-Prince. But in my role as guru of all problems health-related, I learned to say “kidney stones” in French. I fought my fear of transgressing an unwritten cultural rule to talk with strangers in new situations, and found I only learned more as a result. I cold-called several medical labs to find out if they did X-rays and how much they'd charge, all in my strange hybrid Creole/French. I did not know I was brave enough to do these things.

So, naturally, I'm afraid I got more out of the experience than the children and their mothers got from me. I hope the money I raised for them will be helpful, and I know they'll love the photos I send back. And I'll keep telling myself I'll learn Creole, keep thinking of them for years. Will I be a better doctor because I spent this time abroad? I may never know the answer. Ostensibly I went to Haiti to help, if not these kids,

then my future Haitian patients. Fundamentally, I went because I was fascinated with stories of Haiti as an extension of Africa in my own backyard. Ultimately I brought back only the understanding that I knew less than I thought, but that I can do more than I know.

Jennifer Rosenbaum is a medical student at Boston University School of Medicine.

Daily Tragedy

By *Faysal Saab*

During my 4th year global health rotation in Malawi, my team was asked to see a 30 year-old woman, Mrs. M, who presented with shortness of breath, cough, and severe weight loss. Despite her young age she had the appearance of a 60 year old, weak and extremely malnourished. Her exam was pertinent for subcostal retractions, jugular venous distension, and hepatomegaly, while saturating only 66% on room air. Her chest x-ray showed large bilateral pleural effusions and cavitary lesions. It was unbelievable to me that she had been living like this. She needed to be admitted, and it cost 200 Kwacha (around 80 cents) to complete the registration for her admission. She said she only had 50 Kwacha, or 20 cents. We weren't going to deny this woman admission, so we went to the cashier with the paperwork and paid her admission fee. We had to do this discretely or else everyone in the hospital would expect this from us – such a difficult situation. I remember thinking that this miniscule amount of money could demonstrate to Americans how much a \$1 donation could actually do.

Mrs. M's "guardian," the one who takes care of her and helps with medical decisions, was her 12 year-old daughter. She was barefoot, alone, and she ended up staying with her mother for more than 1 month in the hospital with nothing to do, nobody to talk to, often spending the night on the front lawn of the hospital. On the day Mrs. M was admitted, I walked her daughter to the tuberculosis registration office where I remember staring at her while the officer asked her questions about her mother's health. I wondered if she had any idea about what was really going on. I observed her carotid pulses while sitting next to her to see if her heart was racing, but it was in the 60's, normal, and she looked calm – ignorance is bliss I guessed.

I sadly realized that she would likely get HIV as she became sexually active in the next 5 years, and that she likely had already contracted tuberculosis from being around her mother. It seemed that she would be resigned to the same fate within 10 years if she did not seek medical care. All the while she was getting directions from the tuberculosis officer as to how and when to give the medications to her mother. I just stared at the

girl the whole time, baffled at this sight. I then wished that everyone who believed in an omniscient, omnipotent, omnipresent God could sit in that room with me and stare that girl in the eye and tell me that her and her mother's situation are all part of a grand plan. That did not mesh well in my brain. At that moment, I felt that these were the events of a sad, random life that we live, all up to luck – what family we're born to, what country we happen to be in, what opportunities we have. This girl was not created equally. This girl did not choose this fate and at that moment I felt that no loving and gracious God would allow such suffering.

When we were finished, I walked her down a long, empty hall to the inpatient unit to her mother's room. It was the same exact walk I had with the mother of a previous patient who had just died the night before, also from an HIV-related infection. I got teary eyed then because it was a complete *deja-vu*; maybe this girl's mother would not survive the night either. I thought, "What will this girl do? How will she even get back home? What other family does she have? They lived so far away." As my team headed back home, I could only hope the next day would not bring another tragedy. But in Malawi, I learned that every day is a tragedy.

Faysal Saab is a 3rd year Med-Peds resident at UCLA and is a part of the Global Health Track. He aspires to work as a dual hospitalist while continuing to practice in underserved regions of the world, in hopes of connecting medical students and residents to powerful global health experiences.

The Cholera Ward

By *Katrin Sadigh*

I never learned his name, though the lines of his face linger from the summer I spent in Uganda between first and second year of medical school. I was taking part in a clinical rotation at a community hospital in the north of the country near Gulu, a region of the world still resounding with undertones of tragedies like Ebola outbreaks and the kidnapping of children to fight alongside counter government resistance militias. One day after completing rounds, the local physician responsible for our clinical education motioned for my classmate and me to accompany him to see one other patient. We waded through scores of patients' families seeking shade and nesting under the accommodating low riding limbs of large blossoming trees. After a short walk, we came upon a white washed structure that stood on a small hill, set apart from the medical campus, which at one time housed cholera victims. A nurse, brusque and angry, threw a box of facemasks at us before heading outside. The doctor explained that this was a patient with tuberculosis that "no man can treat." He elaborated, explaining how the patient had been receiving treatment near his village but only intermittently due to a constant shortage of medical supplies that plagued the entire country. He had arrived to this hospital after days of travel from his village with no more than the clothes strewn on his back and a searing cough, looking for a way out. Only no one wanted to go near him due to fear of his resistant disease and the heavy blame placed on him alone. As though he had singlehandedly willed into being the array of mutations that so nimbly out-manuevered modern medicine, both the clever and the strong-fisted.

I placed a fresh green mask over my face, quietly relieved by the seal that temporarily separated the air I breathed. When I entered the room, it was into a cave with multiple empty beds lined up in rows along the perimeter, windows unseen but suggested by limp falls of light on peeling walls. The patient seemed small sitting at the far end of the room, desperation in his wide eyes visible above the sullied, precariously placed mask. They were eyes none of us could meet—even the doctor, as he began to ask his questions in one run-on sentence. Instead my eyes fixed on the wide-open holes carved crudely

in the middle of the cholera beds, and then furtively fell on the patient's caved-in chest quivering with each laborious breath like a pigeon's feathers arrested in mid-flight. The doctor stood at the maximum distance the stethoscope could afford, listening to breath sounds. He motioned for us to follow suit, but even if shame had not choked my efforts, the patient's breathing spurned clinical scrutiny, only poetic in its deliverance.

But this was no defeated man. In spite of being banished to the cholera ward, long since obsolete, housing a scary variant of tuberculosis deep in his lungs, shunned by family and community, he was not ready to give in. His fervor stood in sharp contrast to the resignation to which I had grown accustomed in the hollow eyes of the sick in a country with scarce accompanying resources. His words had mass, even when drowned in fits of coughs, and fell heavily upon us as he questioned our wordless gestures and exposed the coldness of our language. His questions were reasonable, expressing a need to understand what had brought him to that place, and why there was nowhere else to go. "How can there be nothing?" But we had not been prepared for these questions, and so we gave no answers. Our presence in that room was merely a formality, our brief physical examination—our fingers drumming his chest, our hands turning over his hands—an ill-disguised act of cowardice, even artifice. We left him seated on the hard hospital bed, shedding our hopelessness onto him as we turned to go.

The next day, when overhearing a conversation between two physicians, we learned fortuitously of a clinic, deep in the north, *devoted to the* care of patients with extremely drug-resistant tuberculosis (XDR-TB). While the logistics of transporting the patient to this clinic were not insignificant, I asked how it was possible that in this most far flung of places exists a clinic willing to take on the complex medical care of someone whose own community had pushed to the margins. It comforted me to imagine this man traveling to this place, possibly healing. But it was a momentary comfort. When I am being honest, I recognize that injustice is not just about what is unequal and unshared but also about mute complacency, the inability to demand more of oneself. So I am working harder now, so that the next time I see the frail and cruel, I will not stand mute.

Katrin Sara Sadigh is a resident of the Yale Internal Medicine Primary Care Program HIV track.

Aims, Concerns and Hopes

By *Marwa Saleh*

I study in Qatar, a country where the indigenous population constitutes less than 15% of the 1.8 million people residing here. By the latest statistics I was following, over 50% of people in Qatar were migrant workers, most of whom arrive to join the unskilled labor force. Then, I became interested in global health.

I was travelling to Africa and southeast Asia, where many of the migrants were from, to practice global health. Only when I redefined my definition did I realize global health was right at my doorstep. This is a my reflection on the process of translating global health principles into practice: our aims, struggles, concerns, and future hopes.

I co-founded the Global Health Club (GHC) at my university, probably the first of its kind in a Middle Eastern medical school. It all started over a lunchtime conversation. It took the words of a Lebanese (myself), a Tanzanian, and a Pakistani, all medical students in Qatar, to articulate our vision. We described our organization as “a club that believes in the phenomenon that responsibility of health goes beyond the boundaries of a nation.” Our goals were divided into three levels that focused on the individual, university, and community. We recruited over 25 students in our first year in 2010, which was a good number considering our student population was less than 300.

Little did we know at the time we applied, our campus was the product of a global health American-Qatari partnership. Our medical school class of 50 has students from over 10 different countries. Our teaching hospital treats patients even more diverse than our student body. Hence, our definition of global health in Qatar has always been simple: global health is *everyday* health. Despite this simplicity in defining global health, as students, we faced much difficulty in formalizing it.

Our main focus as a group has been on individual-level involvement. For starters, most of our student body lacked the basic knowledge of global health. In a short video examining student views on the topic, none of the interviewees were able to identify the

‘key’ global health diseases (despite confronting them in daily practice). Interviewees also failed to identify the key players in the field and important policies in place. This is especially concerning, as some of our student body intend to work in the health systems of their respective countries of origin. We were failing to equip ourselves with the adequate, basic ‘global’ data. Hence, GHC established the Global Health Seminar Series to complement our previously organized lectures.

Despite our success as a group, we have been confronted with numerous barriers as we attempt to introduce this novel concept of global health, to our medical school. To begin, we had to overcome the busy schedules of students and faculty, work around cultural barriers involving laborers, and continuously lobby our own administration for more global health opportunities. It felt like reinventing the wheel. How does one approach global health from a non-Western perspective? This question highlights the differences in global health practice across countries. A medical student usually perceives global health as a service trip to Guatemala, a research project on a local refugee group, an immigrant at the emergency department, or a seminar addressing international health concerns. Although this perception may be shared by medical students from different geographies, its application varies.

As medical students experiencing everyday health, we recognized the need to join this global medical student movement. In summary, we recognized the need to create global health exchange programs, especially with our countries of origin, to demand a stronger curriculum to complement the clinical skills we practice at the hospital, to design research addressing our local global health problems, to advocate at the national level for better healthcare for migrants, and to nurture the growing interest in global health in our community. But, how do we achieve and sustain all of these initiatives? Here is where our hopes as graduating medical students come in.

Several resources exist on global health in American and UK medical school settings, but nothing regional. We have no guidelines for global health curricula, no networks connecting professionals with common interests, and no journals or conferences addressing our key issues, which for Qatar and other Gulf Cooperation countries are primarily related to the migrant workforce. On a regional level, our main health concerns relate to the ongoing conflicts resulting in millions of people being displaced within. Working with Syrian refugees in Lebanon through a Qatari NGO made me realize that students are often unaware of the available global health opportunities. This became especially apparent to me when I was approached by several classmates requesting international placements to serve these refugee populations.

Now is the time for global health to take root in our region as it has in the West, and to build a structure that will facilitate connections for professionals at different levels.

Our club has given us a platform to voice our opinions, demands, and projects, and as we prepare to transition into higher medical education, we hope that the definition of global health will go beyond including us.

Marwa Saleh is a student at Weill Cornell Medical School at Qatar.

The Paradox of Privacy: Reflections on Anonymity and Empowerment in a Global Health Intervention

By Jasleen Salwan

In ethics training for global health fieldwork, we are reminded that a patient's dignity depends vitally on doctor-patient confidentiality. When we neglect our duty to uphold the right to privacy, we place patients in an unacceptable position of vulnerability: they lose a part of themselves when they lose the ability to keep their own information to themselves. Without question, we believe that in global health interventions, confidentiality is particularly indispensable. We have a nebulous conception of the populations we work with abroad as "marginalized communities," and we assume that this renders them exquisitely sensitive to the vulnerability of compromised confidentiality. During most of my medical and global health coursework, I never thought to challenge this assumption. But last summer, when I implemented self-help groups for people with alcohol use disorders in Saint Vincent and the Grenadines (SVG)—a project that, on its face, would demand anonymity for all participants—adhering to Western standards of privacy proved not only unnecessary, but counterproductive.

From my early preparatory research on SVG, I gathered that while an intervention for alcohol use disorder was desperately needed, stigma would preclude many potential beneficiaries from participating. A middle-income country in the Eastern Caribbean with a population of just under 110,000, SVG has one of the highest rates of alcohol-related mortality worldwide. Prior to my trip, focus group discussions with local leaders in multiple target communities had highlighted not only a lack of resources to treat alcohol use disorders—there was no formal rehabilitation facility in the entire country—but also a pervasive shame in seeking what little help was available. From this information, I drew what seemed an obvious conclusion: my teammates and I would have to take great care to protect the identities of all who participated in the intervention. The self-help group form of the intervention, modelled after Alcoholics Anonymous (AA), would successfully

recruit participants only with the assurance that their anonymity would indeed be treated as sacred.

The previous year, another student from my medical school had launched pilot self-help groups in three SVG towns. When only one of them was still holding meetings a few months after she left, I again assumed that stigma was the barrier to sustaining the intervention. I imagined that more needed to be done to guarantee confidentiality and thus secure the trust of participants. Then something entirely unexpected happened: the self-help group that had remained active requested funding from my medical school for T-shirts to raise awareness about their membership. In a collaborative effort, they designed a message for the shirts that displayed personal pride in their individual struggles to achieve sobriety while making reference to their collective experiences living in a country prone to natural disasters. The front of the shirts read, “Alcohol can cause as much damage as a hurricane,” and the back, “I can’t control the weather, but I can control my drinking.”

The fact that the self-help group members would wish to promote their group publicly—they even sent us a group photo of all of them wearing the shirts—immediately shook the assumptions I had held. I quickly realized that the participants were not demanding that we protect their identities, and I began to see the imposition of anonymity on their self-help group model as paternalistic. My teammates and I revised our interview and focus group questions to reflect our new understanding, and we brainstormed additional ways to help the group advertise. This change of direction certainly came as a surprise, but when I arrived in SVG and observed a meeting of the active self-help group, I was even more amazed.

AA meetings in the U.S. strive to be discreet: they are often held in a basement room of a church building, with the door closed and only first names used. The SVG self-help group held its meetings outdoors. They sat on the pavement of a street corner, or occasionally on benches in a park. In a country with such a tiny population, any passersby would doubtless recognize at least one of them—and indeed, one of their most vocal members had joined the group because he was curious as to what his fellow community members were discussing and soon realized that he, too, needed to confront his drinking problem. This same group member brought us a request even more surprising than the T-shirts: he wanted a local TV station to interview them about their experiences attaining abstinence through the group.

With the help of local community leaders, we were able to obtain a televised segment for the group. It was powerfully moving to see them all wear their T-shirts proudly before the cameras, and even more moving to hear them relate their collective journey toward sobriety. They urged anyone viewing the segment who was concerned about their drinking to join the group and to lean on them for support. They even singled out one of

their members who was struggling more than the rest to maintain abstinence, with all of them wishing him special luck. Throughout the interview, each member's feelings of pride and fulfillment were palpable. I now saw plainly that the traditional AA model's emphasis on anonymity had no place in this community. To deny these people an opportunity to speak publicly in the name of protecting them would only have eroded their dignity.

There is something inherently uncomfortable about the power dynamics between the Western healthcare provider and the developing country patient. No matter how much health care and education we supply, we can never dissolve the injustices that make us the donors and them the recipients. Perhaps it is to assuage our guilt that we instinctively redouble our commitment as guardians of patient information in global health settings. We may hold enormous privilege relative to those we serve, but at least we can prove ourselves worthy of their trust. This impulse is understandable, but we must recognize when patients are asking us not to safeguard their secrets but rather to help them empower themselves through sharing.

Jasleen Salwan is a third year MD-MPH student at the Icahn School of Medicine at Mount Sinai. She holds a BA in Economics and Public Policy from Brown University.



Photo credit: Jasleen Salwan

One Bacteria Under All: A Perspective of a First Year Medical Student Working with Tuberculosis in Vitoria, Brazil

By *Daniel Silva*

The kombi bounced, screeched and jerked down the busy downtown streets of Vitória as Conrado and I desperately dug into the seat cushions for seatbelts. Filipe and Rafael looked back smiling, “Those seatbelts haven’t surfaced in fifteen years!” Giving up, we did our best to hold onto the window frames as the busy Capixaba capital whizzed by against the backdrop of lush mountains and industrial piers.

We were our way to the home of a patient enrolled in the International Collaborations in Infectious Disease Research (ICIDR) study based at the Nucleo de Doencas Infeciosas at Hospital Universitário Cassiano Antonio de Moraes in Vitória, Brazil. The project aimed to characterize the transmission of *Mycobacterium tuberculosis* (mTB) in households by investigating biomarkers and epidemiology. Three friends and I came from Boston University School of Medicine to work with researchers and clinicians analyzing ICIDR data and visiting homes of study participants, while also rotating through infectious disease clinics. That day we were heading to a part of town that Rafael referred to as an “invasão,” or unauthorized settlement. The dirt roads led to grassy back alleys, and the only identifiable landmark was a small supermarket where we met the patient’s mother and father. They asked us to remove our white coats since they did not want to scare the family visiting from Rio de Janeiro who is unaware of their son’s TB. We obliged and followed them down a narrow alley to their home.

It was humbling to enter someone’s home with the expectation that I could offer some help. These are the patients I imagined myself working with when I decided that I wanted to be a doctor. Tuberculosis (TB) is an exciting field because it enables you to work with vulnerable communities in which effective medicine can make a meaningful difference. However, it was obviously apparent that I had a lot of work ahead of me in order to make an impact. My first step involved listening closely to the patients and learn

as much as I could from their experience. I heard happy stories of employment and family love, but more often heard sad stories of murders, financial obligations, and multiplying health concerns. I was confronted with the fact that TB was not the major cause of poor health in these patients, but rather a symptom of pervasive socioeconomic inequity. It is a correlation seen too often to doubt causality, but also remains to be rarely addressed by healthcare systems. That summer I learned how tackling TB household-by-household can trickle into strengthening a national healthcare system, providing a framework for equitable healthcare delivery.

The Sistema Único de Saúde (SUS), Brazil's federal healthcare system, was created following the 1988 Constitution that declared access to healthcare and essential medicines to be a human right. Many of the doctors I worked with endured a military dictatorship and considered the right to health to be a cornerstone of democracy. So it was unsurprising that they were confused by our celebration of the Supreme Court's passing of the Affordable Care Act. Things continued to remain confusing when we informed them that American healthcare operates much like a business. The Brazilian Constitution guaranteed universal healthcare and these doctors were trained to fulfill this promise. The doctors I worked with did not consider insurance coverage or cost, and believed patient advocacy was part of their job description. Though social determinants of health remained a didactic concept taught to me in class, the infectious disease doctors in Vitória preached them and lived with them every day. I was struck by this very obvious difference between healthcare delivery in Brazil and America.

SUS guarantees HIV/AIDS and TB medicines free-of-charge to all Brazilian citizens, and has become a model for national healthcare delivery. At the core of SUS is the Family Health Program (PSF), which provides community-oriented primary care for the majority of Brazilians. PSF serves as the foundation for many other healthcare initiatives in Brazil, including a National Indigenous Health Policy to address health disparities affecting indigenous communities. PSF further established unity through placing HIV/AIDS prevention and control programs in the hands of community health centers, and Directly Observed Treatment (DOT) for TB patients staffed by PSF Community Agents. When the TB programs were introduced, Brazil was firmly considered part of the "third-world," and in my lifetime I've seen Brazil develop into a "middle-income country." This transition was most evident to me when I began to see TB doctors trained to address the growing burden of non-communicable diseases, namely diabetes and hypertension. I was inspired by how addressing the needs of the most vulnerable populations was leading the way for attacking "first-world afflictions," which enhanced my pride in being Brazilian.

Throughout that summer I often heard TB referred to as a "democratic disease." It didn't make immediate sense to me since I considered TB a disease of poverty and a

symptom of social inequity. However, I came to understand that TB being referred to as democratic carried a double meaning. First, TB is democratic because it is an airborne disease, and no matter what class, race or community you come from you cannot avoid breathing. Secondly, due to its egalitarian nature the control of TB requires a concerted effort from government and civil society. TB is a unique disease because it does not rely on risky behaviors for transmission but rather on poverty, and has essentially become a biomarker of economic growth. TB is democratic because it requires cooperation and participation for effective control, and subsequently lays an infrastructure to confront future threats to public health. Working with TB taught me about the value equitable healthcare delivery and shared responsibility, and I will uphold those lessons throughout my medical career whether at home or abroad.

Daniel Silva is pursuing an MD at Boston University School of Medicine.

On Stars

By *Lisa Simon*

I fell in love with the stars first. Growing up in a light-polluted city, I was paralyzed with wonder during my first summer in rural New England, when on a clear night I gazed up at what to me seemed more stars than sky. When given the opportunity as a senior dental student to return to the area and work at a free clinic in Vermont, I thought of Boston's reddened, starless skies and jumped at the chance. "I will help people all day," I fantasized, "and hike and stargaze in my free time!"

There was, of course, less time for that than I'd imagined. Each morning brought a cluster of people in pain. Most had not been to the dentist in decades; many had come from the emergency department of local hospitals, desperate for care. I pulled more teeth my first day in the clinic than I had in 3 years of school. I grew accustomed to asking patients where they felt pain and having them answer "everywhere." I felt great sadness that the American healthcare system had failed so many, all because teeth were not considered important. I had expected my patient's oral health to be dire – it was why I had come here, after all – but I had not anticipated my own anguish in response. My heart broke for each of them: the mother who felt she could not find work because she was missing her front teeth; the 33 year old who expected to be toothless by 40, as his parents and grandparents had been; the 20 year old who could not remember a time when his teeth did not bring him pain.

But empathy was not enough. Each evening, people were sent away because I had taken longer than scheduled to extract a tooth or finish a filling that afternoon. Procedures took longer and were more uncomfortable because I was doing them. I stared at my hands and willed them to be faster, gentler, more able. I could do nothing but apologize – for my own shortcomings as a student and for the world that had brought my patients to me in the first place. I felt like I stood at the edge of a vast hole, one that grew deeper no matter how quickly I shoveled in earth.

When a star goes supernova, it can become so luminous and so energetic that it outshines whole galaxies and gives off more energy than the sun. It is to what my

student colleagues in global health and I aspire – to confront massive disparities and injustices and, with our skills and dedication, dazzlingly eliminate them. The unglamorous reality of student abilities stand in stark contrast to this dream. In that free clinic, doing the best I could, there were always patients turned away, always teeth I was forced to extract rather than save, always pain that went on far too long before I could treat it. My “best” wasn’t big enough to straddle the need to which I bore witness; not yet.

This only made me feel guiltier when my patients responded not with frustration but with profound kindness. Each day we received homemade jams, fresh-baked cookies, and hand-frosted cakes (enough, noted the clinic director wryly, to give us all cavities). Hand-picked wildflowers gave way to baskets of apples as autumn began. When a supervisor pointed out an error in a filling I had done, my patients would wave away my apology and say, “I am happy to help you learn.” They hissed through treatment on infected teeth that I couldn’t fully anesthetize and thanked me when all was done. I feasted on their cookies and smiled as they left, but I could barely meet their eyes.

One way stars accumulate enough energy to undergo a supernova transformation is by absorbing it from neighboring stars. These “stellar companions” sacrifice their own material and energy to the nascent supernovae. With each passing day, I got faster. My fillings got smoother, my extractions more elegant. With each gentle touch, uncomplaining wait, and smile of reassurance, my stellar companions gave me energy to improve.

Seeing the depth of dental need in this rural community only strengthened my desire to alter the fabric of the healthcare system. But confronting it day after day as a mere trainee reminded me I will need more time, more training, and more help to make those lofty changes.

On my last day before returning to Boston, I removed an infected tooth for a young man. “Thank you!” he said, as I wrote an antibiotic prescription, “I was up all last night and I feel so much better.”

“You’re welcome.” I responded. The extraction could have been gentler, I thought. The sutures could be straighter. But I had done my best, and next time I would be better. I smiled and shook his hand.

To imagine oneself that single incandescent star is hubris of the highest order. I look around and see my stellar companions, radiating patience and support for my goals. They believe that one day I will help others, so they will help me now. In rural Vermont, in urban Boston, and in all the settings where a student dentist might do some good, I have been surrounded by a constellation of other stars, luminous with kindness. It will be enough, I think, to glow among them.

One day. It is a promise to myself and to those who have given so deeply to my education as a student of global health. But until I can give back, all I can give, in limitless quantities, is gratitude.

Lisa Simon earned her dental degree from Harvard School of Dental Medicine in 2014. She is now a resident at Cambridge Health Alliance, working with an underserved population at a community health center.

Service and the Messiah Complex

By *Manasvini Singh*

"I want to help them. I want to make a difference."

As the beaming girl passed the ball to the person sitting next to her, I caught a glance of our mentor's face. There was an expression on her face that I couldn't quite fathom. A weary smile, a bemused cynicism. The boy, holding the ball, paused to think and then piped up, "I'm here because I felt like I can make a difference in their lives. I am so privileged to have grown up in America while these poor people have slaved their lives away in poverty. I feel like I can help."

After he passed the ball to me, I said the same thing everyone had said before me. I fleetingly wondered why the use of so many "I"s stuck out like discordant notes.

Three months later, the same setting – all 13 of us gathered together in a little restaurant in Nicaragua, picking at our beans and tamarind-flavored rice. The now (almost) harmonious buzz of mosquitoes heralded the setting of the sun. It was time for reflection again.

This time, however, gone were the fervor-tinged faces of my fellow interns. The hopefully passionate voices that spoke of change and the ushering of a new era of empathy and globalism were largely missing. They spoke, instead, of frustration, toil, and dissatisfaction with the inefficiently managed system and with being largely ignored. But most of all, they spoke of the helplessness associated with not being able to do anything that they had set out to do.

As I held the ball in my hands and felt the eyes of my peers and my mentor on me, I reflected on the last three months of my life as an intern at *Wuppertal Puesto de Salud*, in Matagalpa, Nicaragua.

When I got accepted into the internship with a small OB/GYN public health clinic serving the slums on the outskirts of the city, I had staggering dreams for what I was going to do. I had revolutionary ideas that would solve every problem that such a poor organization in such a poor country was sure to have. How could I not? I was educated, well to do, and well-traveled. I may have been only 19 and a junior in college, but I was

positive at the time that I was The One. I would deliver that little public health clinic from its misery.

I represented, at that point, the majority of most people who volunteer or work in developing countries. There is a self-righteousness to us that blinds us, a radicalism that matches the fervor of religious fanatics. We are the self-proclaimed messiahs of these countries, who think we will save them from poverty. We believe we will change the way they live while we are there, and that when we leave, our footprints will always remain in the hearts of all those we touched. If they follow our advice, they will be saved.

What fools we are. In my three months there, I was rudely slapped into self-awareness. Poverty is not a synonym for ignorance. I have never felt so miniscule, so completely irrelevant to the cause I wanted to dedicate myself to. As hundreds of patients poured into our tiny two-room clinic every day, I scurried around with the two doctors available to attend to them. I watched the doctors deal with grave circumstances with meager resources. They lent money from their salaries to no foreseeable return. They came early to poor working conditions and poor wages, and they left late. They counseled women to be strong, financially independent, and to pursue higher education, not knowing how many were actually able to do so. I watched fellow patients help each other deal with loss and trauma. And everyday, while I felt that my contribution was barely a drop in the pond, I learned more than I ever have in such a short span of time about leadership, compassion, and the power of the indomitable human spirit in times of hardship.



One of few doctors serving the rural sick in Matagalpa, Nicaragua.

Photo credit: Manasvini Singh

There is strength in these people who we so often pity that we will never have. Entrenched in our wealth and comfort, sometime the strands of empathy that connect every human being get stretched a little too thin. There are rare jewels of humanity to be found in the field of global health, a fact that is often overshadowed by the physicality of the aid that we, as volunteers, people of service, or public health professionals, provide. Working in poor countries should not be an ego-boost. It is not dinnertime conversation, where everyone takes a moment of silence to remember “those poor people.” It is not an opportunity to force our ideas of a perfect world onto people who are not in positions to resist. It is a symbiotic relationship between two parties sharing what they have an excess of. For me, I donated a small amount of my time and an extra pair of hands. In return, I was given an unforgettable life experience that solidified my choice to pursue public health as a career. I learned that they might need our help, but they certainly do not need our charity.

I looked up at my mentor. She smiled at me, and I finally realized with ringing clarity that this is what she had wanted us to take away from the entire experience. I do not think I changed anybody’s life. At most, I may have saved them a few hours of work. In all honesty, I think they were doing and would continue to do perfectly fine without me. However, I do plan on returning once I am more qualified. And I will learn a little more about myself, this world, and the inexplicable link between the two.

Manasvini Singh is pursuing an MSPH in International Health at Johns Hopkins Bloomberg School of Public Health.

Cura Personalis and the Prevention of Paternalism

By *Daniel Slubowski*

Staring out the airplane window into the beautiful surrounding blue waters, I recognized one of America's greatest construction accomplishments of the 20th century: the Panama Canal. It was the summer after my first year of medical school, and I was traveling with fellow classmates, as well as students from other Jesuit medical schools, on the first-ever Jesuit Medical Collaborative trip. The unbelievable structure would be our group's introduction to a 10-day public health mission into the rural, indigenous communities of eastern Panama. As I admired its beauty, however, the words of Rubén Darío crept into my mind from my undergraduate studies (translated): "You are the United States/you are the future invader/of the native America that has Indian blood/that still prays to Jesus Christ and still speaks Spanish." From his famous poem "To Roosevelt," Darío wrote this work as a protest to the imperialism of the United States, voicing against the over-reaching power of our nation into the affairs of Latin America, including the construction of the Panama Canal. I couldn't help but think: is our work an extension of this imperialistic nature? Are we promoting an environment of paternalism in our global public health mission? I had been so excited to provide help to a community that I did not imagine our work as a possible invasion of an established community. *Cura personalis*, a hallmark of the Jesuit faith and of our service trip, means "care for the entire person." Living this ideal during our global health mission not only helped us to bridge the cultural gap but also allowed us to form a medical collaboration with a community instead of presuming a position of paternalism.

Every individual has a story, a lesson that cannot be forgotten in the area of global health. The most meaningful and important aspect of our trip occurred before we even began our clinical work. Our group traveled to the Emberá community, the site of the indigenous people of Darien in East Panama. We had the opportunity to speak with a woman's grandparents about their experience with and perspectives on Western medicine. Translated from their indigenous language to Spanish by their granddaughter and then

from Spanish to English by our group leader, we learned of their reluctance to share the specific details of the medications they personally used in their community for illness. However, they did explain that they used certain plants to treat fever, arthritis, infection, and many other diseases. Dental health involved chewing on particular leaves that would initially turn their teeth black before removing plaque, which they explained to us while smiling with their pearly whites. When asked about their views of Western medicine, they mentioned their interest in getting to work with doctors further to help with newer diseases that were affecting their community, like cancer and new infections, which they had yet to solve. At the end of our conversation, they expressed their appreciation for our curiosity and gratitude for taking the time to learn about their culture. Gaining all this information on the first day of our clinical experience, I received my first realistic encounter with collaborative medicine since beginning medical school. How can I expect another person to appreciate my advice or follow my treatment plan if they do not feel like I understand his or her disposition? The basis of that strong physician-patient relationship comes from humility; I cannot truly help another human being until I fully undertake the effort to assume what they are experiencing. As I continue into my career as a physician, I have the memory of the people of the Emberá community to keep me humble and retain *Cura personalis* as a foundation of my future practice.

Participating in global health immersion projects is an arduous yet fulfilling experience. The greatest aspect of these trips, in my opinion, is not the recognition of differences between cultures but rather the appreciation of similarities. I have learned that no matter the country, we all search for happiness, and we all experience suffering. My future as a physician has been enriched by my experiences in global health, enforcing the concept of *Cura personalis* to better know the whole person and seek out those human commonalities. I have learned that it takes humility, assuming the condition of another, in order to form a productive collaboration with patients. With this knowledge, Rubén Darío can rest assured that paternalism has no place in my future practice as a physician, internationally or at home.

Dan Slubowski is a 4th-year medical student at Creighton University School of Medicine going into the specialty of Emergency Medicine. He graduated from the University of Notre Dame with a BS in Biological Sciences and a BA in Spanish.

More Valuable Than Money

By *Melody Tan*

It was in Ethiopia that I finally grasped the complexities of aid. Walking through the dusty streets of Addis Ababa, it was impossible to avoid beggars as they called out, “Sister ... sister ...” asking for a couple *birr*. The children stared at me and touched their mouths in a silent plea for food. Each day I saw them, and each day I walked by.

It was inaction my younger self would have condemned. I was an empathetic child, passionate about righting global injustices and inequalities. For years, I gave to non-profits, assured that my donations were directly improving lives. But gradually, persistent questions began to erode my foundation in the traditional aid philosophy. Then, my trip to Ethiopia became the catalyst for further reflection on the traditional forms of Western aid and reconsideration of my views.

I was in Ethiopia with the task of creating an inventory of medical devices at several hospitals in Addis Ababa. This was a first step in a collaboration between my American university and two Ethiopian institutions to develop their biomedical engineering curriculum, which would then facilitate the development of local engineering capacity and the repair of medical devices. By day, I went from hospital department to department, meticulously cataloging the status of each piece of equipment.

Then, each night after the sun went down and it was no longer safe to go out, I spent my time reading. I read arguments against foreign aid, perspectives that had eluded me before. I read of food, clothing, and even mosquito net donations that destroyed homegrown businesses and perpetuated a culture of dependency. Daily, I walked by beggars and the homeless, whom it was evident the aid dollars never reached. At the city hospitals, I saw storerooms of unusable equipment collecting dust, some still in their UNICEF and USAID boxes. I heard that during a recent famine, the government *exported* food, while international food aid poured in and thousands starved. As I read accusations that the inflow of foreign dollars hampered development, I witnessed the truth of these charges in my everyday experience of the country.

I could see that current methods of aid were widely ineffective. My experience taught me to be cynical. But I also strongly believed that cynicism could never be an excuse to do nothing. This pushed me to find my own role: How could I contribute in an effective and sustainable way?

To begin answering this question, I looked to my current work with broken medical devices. As I spent time in hospitals, I saw a dependence on donated equipment and a severe lack of capacity for the upkeep of this equipment. I visited several 100+ bed hospitals with only a couple minimally-trained technicians responsible for the maintenance and repair of all medical devices. When these technicians learned of the overarching purpose behind my inventory work, all expressed great enthusiasm for the development of local engineering capacity to supplement their skills and resources. I drew from this experience the value of being able to impart transferrable skills--the development of structure rather than provision of a palliative. Furthermore, I believe this to be a way around the aid conundrum, articulated best by the Ethiopian professor who told me, "Ideas are more valuable than money."

While I know it will never get easier for me to walk past the beggars on the street, they are my motivation for creating systemic change. I now aim to use my own background in engineering as a bridge to work between the developed world and developing world. It is my hope that by channeling the flow of ideas and skills between these two spheres, my efforts will bring closer a future where this partition will cease to exist.

Melody Tan graduated from Rice University in 2014 with a degree in Bioengineering and Global Health Technologies. She is currently a master's student at the Johns Hopkins Center for Bioengineering Innovation and Design.



Broken equipment abandoned outside a hospital in Addis Ababa, Ethiopia.

Photo Credit: Melody Tan

Freedom

By Carmelle Tsai

He hangs his head. He stares blankly into the floor. He buries his face in his hands.

He is a tall and well-built man. Physically strong. Powerful.

And he won't look up at me.

Beneath the strength, beneath the man, is something greater 'ka gulu' (*far* greater) than he ever feared.

Evil. Deceivingly powerful. Alluringly strong, yet leaving only helplessness and weakness in its wake.

It is not the fact that he abuses his wife.

It is not the fact that he uses sex as a means.

It is not the fact that he is unfaithful.

It is not the fact that he was incarcerated until a mere day before walking into my exam room.

It is not the fact that he is part of why his daughter has HIV.

It is not the fact that he is why his beloved daughter has no mother.

It is not the fact that he played roulette with his daughter's life by causing her to miss her life-giving medication.

It is the shame. The brokenness of poverty and cruelty of an unfair world start the battle. But the shame is what strikes a man behind the knees and cripples him from becoming a redemption story.

I want him to look up at me. I want him to look *into* my eyes, not past them. As his 'dokotela' (doctor) I have but a few stern admonishing words about how important it is that he keep his sweet baby on her anti-retroviral therapy. The deep cistern in my heart that holds the smiles and tears of the kids I love is *raging* on behalf of his daughter.

So I need him to look into my eyes. I need him to be able to look inside. Past the harsh, past the disappointment, and into the place in my soul where love still lives. Into the place where something inexplicable that I don't deserve to consider mine flows out and softens my cold stare into a look of compassion. When my words cannot express

and where my heart fights conflict, my eyes reveal a bare-naked view of the part of my heart that is not mine and is not a captive of shame but of love and hope. The part that is 0% me and 100% pure grace.

I am a small-framed female ‘muzungu’ (American) who probably weighs barely half what this muscular African man who has seen real *pain* weighs. He can probably bench press me. I am sitting across from this man, alone in an exam room.

But, I am not scared. Instead, my heart is breaking. It is painfully clear how utterly broken this situation is. The only thing I can’t figure out is whether I am breaking more for the captivity of his shame, or the broken hearts of his baby girl and wife.

It’s strange and teeters on the edge of feeling wrong for me to say this, but I think I love this man like I love my patients who are women abandoned by their men, or kids I wish I could take home with me. It does not elicit the same pangs that come from the melted hearts and smiles of broken women and children. But its intensity? It *burns* with the same fire.

I love this man. Not because he has ravaged the lives of others. But because I know the shame that causes him to hang his head, stare blankly past my eyes, and bury his face in his hands is the greatest prison of all.

This is the shame that I have seen in the glassy eyes of my schizophrenic patient on the eve of the anniversary of his child’s death. It is the same shame I have seen in the frightened eyes of my 2-month-old patient’s mother when she brought in her seizing baby. It is the same shame that I have seen in the deep eyes of the man who broke my heart.

It is the same shame that I have seen in my own mirror before.

The more I have been present in the most broken and shameful parts of people’s lives—whether through third-world problems, or first-world problems—the more I understand that whether or not the surface problem is starvation or addiction, there is something inside us all that is so much the same. Oh, how we all hurt. Our hearts all break. We all can be so imprisoned by whatever wrecked our lives and caused us shame.

But I have also found that conversely, though the cause of brokenness is so very different, the hurt binds us together. We all need the same key to set us free. And I’ve found that all I want as a ‘dokotela’ is to give medicine as my messenger of hope. Hope of experiencing and understanding love. The set-you-free kind of love. The one that brought me out of my shame.

It’s not about fancy programs. Or really good research statistics. Or awesome educational materials. Or even money. Those are all important and helpful, but in the end I hope that when it comes down to it, the bottom line remains the raw love that I still believe can be bigger than shame and brokenness.

Oh, David*. You are more loved than you ever hoped. And that love is *grace*.

Look up at me.

Look up at me.
Into my eyes.
Find grace, David.
Oh, find grace.

*Pseudonym for my patient

Carmelle Tsai obtained her medical degree from Baylor College of Medicine and is currently a Pediatrics Resident at University of Texas, Southwestern – Children’s Medical Center. She also holds a B.S. in Engineering from Franklin W. Olin College of Engineering.

A Couple Hours

By *Lillian Tsai*

A couple hours. Enough time to see several patients in clinic. Enough time to drink a few packets of oral rehydration salts (ORS). Enough time to fly from Atlanta to Boston. But not enough time to navigate the bumpy, convoluted roads of the Bangladeshi countryside. Not enough time for the ashen-faced man wrapped in dark blue blankets now lying before me.

His face was surprisingly blank. I expected to see some sign of struggle, some remnant of his last thoughts or emotions etched across his peacefully smooth forehead, but I saw nothing. However, hypotheticals spun ceaselessly in my head. What if he had a few packets of ORS at home? What if there had been a hospital closer to his village? What if he had been able to arrive at the hospital just a couple of hours earlier?

When I first stepped into the International Centre for Diarrhoeal Disease Research (ICDDR,B) in Dhaka, Bangladesh, I was met by hundreds of blank stares. Endless rows of cots were lined in an overflowing white tent outside the hospital. Each shiny green plastic cot had a hole cut out for diarrhea to flow freely into a bucket beneath it. Among the hundreds of faces, there were only a handful of doctors distributing their attention to patients all around them.

A couple hours after arriving home from the hospital, my roommate stumbled into my bedroom and promptly crumpled to the floor. Having only been in Bangladesh for a few days, I had looked up emergency phone numbers, which I never thought would be necessary. As she regained consciousness, I called an ambulance and poured her some ORS. At the hospital, the doctor diagnosed her with shigellosis, and she remained strong as long as she was rehydrated. Over the next two weeks of her recovery, we began to understand each other. I found that she hated having to drink ORS, preferring to pour glasses of the liquid down the sink instead. I persuaded her to drink the ORS in exchange for rice porridge that would soothe her stomach. In her misery, she was also reluctant to collect stool samples. However, we had long conversations every day and by the end of those two trying weeks, we became close friends.

The blank faces in the hospital now invited me to delve deeper. A fragile young girl sitting alone in the large white tent peered at me with wide, unyielding eyes.

"Kemon aso? (How are you?)" I asked as I bent down to greet her.

"Bhalo! (Good!)", she exclaimed, with her face breaking out into a delighted smile.

I was amazed that my small gesture could elicit such a bold reaction. Encouraged, my roommate and I began learning Bangla (Bengali) phrases from a co-worker at the hospital. After work, we explored Dhaka together and returned to her university to exchange ideas. We often talked about our families and explained cultural practices and differences to each other. I recall one day speaking about the loss of her loved ones to widespread and treatable infectious diseases.

As I listened, I remembered the stream of neon pink water I saw running through the slums in Dhaka. I recognized that the living conditions that breed infectious diseases are extremely difficult to change, especially on a large scale. Therefore the development of reliable, affordable vaccines is vital to combat these life-threatening diseases, at least until infrastructural improvements are made to provide safe water in the communities.



A stream of neon pink water running through the slums of Mirpur, Bangladesh.

Photo credit: Lillian Tsai

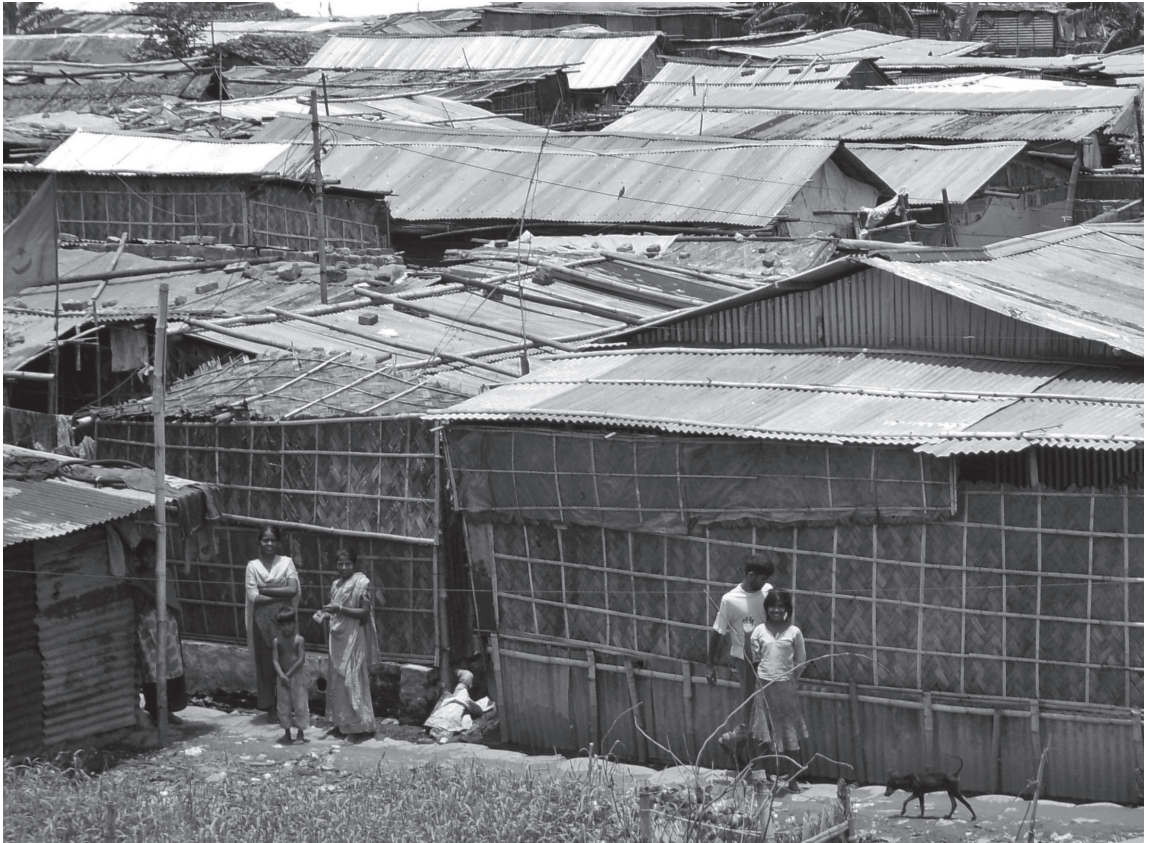
When I look back on my time in Bangladesh, I remember all the friends and patients who touched my heart. Memories of countless faces have stuck with me long after I left—mothers nursing their malnourished babies in the maternity ward, the chapped lips that constantly begged for water, but also the joyful sparkle in the eyes of the children that ran through the slums. As I continue to explore various diseases that afflict global populations, I begin to comprehend the magnitude of the burden of disease, ranging from dengue fever in Nicaragua to HIV in the United States. I am appalled and saddened at the thought of millions of people around the world, just like those in Bangladesh, who arrive at a hospital a couple hours too late. However, memories of the patients and new friends I have encountered urge me to take action. They are the ones that motivate me to learn about cutting-edge research, pour long hours into my own research and medical studies, and have hope that in the future I will contribute to medicine in a way that will bring them relief and joy.

Lillian Tsai is a medical student at Emory University School of Medicine.



Children play along the river in Matlab, Bangladesh.

Photo credit: Lillian Tsai



A friendly hand wave in the slums of Mirpur, Bangladesh.

Photo credit: Lillian Tsai

Translating Compassion into Impact

By *Shawn Wen*

With phrases like “promoting health worldwide,” developing innovative technologies for the “bottom-of-the-pyramid,” and reaching the “last mile,” I often find the language of global health to be vague and impersonal. What makes global health come alive for me is viewing it as action inspired by human connection and compassion. With global health, it has to be personal, simply because the connections and relationships we forge give us the lasting strength and focus required for overcoming the unforeseeable obstacles that inevitably arise when working at the frontlines of global health.

But where do we find the motivation to take action in the first place? I think it comes from firsthand exposure and engagement. It comes from fully immersing oneself in a developing country and establishing meaningful cross-cultural bonds by approaching every person, regardless of differences in social standing, cultural heritage, belief system, and health status, with an open heart and a genuine desire to learn something new about oneself, others, and ultimately the common threads that connect us all. My first exposure to global health was when I hopped on a plane to spend four weeks by myself in India with no agenda except to test my resilience, take risks, and learn from being completely outside my comfort zone. The unexpected result was a completely transformed view of the world and my role in it.

As an aspiring physician, I sought to gain perspective by spending time first at a private hospital and then two of the largest public hospitals in New Delhi. I had previously read that public spending on healthcare in India is staggeringly low (0.94% GDP), and that private out-of-pocket expenditures account for roughly 80% of total health spending. I saw how these statistics translate into drastically unequal delivery of quality health services between the public and private sectors. I tried to identify the root cause of these inequalities, but the more I tried, the more I realized that one root cause didn't exist. There was no single pathology in the system that I could pat myself on the back for diagnosing.

Here within lies what I see to be the greatest challenge in global health: Everything is interconnected, and there is no isolated fix. If global health is about promoting healthy behavior and not just about reacting to diseases, then level of infrastructure, sanitation measures, health education, public policy, physical access to hospitals, and social attitudes towards hospitals, doctors, and allopathic medicine all become just as influential on health outcomes as drugs and treatments themselves. The silver lining of all this is that because global health encompasses so many domains, we can and should take an interdisciplinary approach towards building solutions. Physicians and scientists obviously have valuable skills and insights to contribute, but so do economists, business people, government officials, policy makers, designers, urban planners, and yes, even undergraduate students. I won't wait until medical school to turn compassion into impact simply because I refuse to believe I have to.

As a fellow in MIT International Development Initiative's Technology Dissemination Program, I have been working on a collaboration between MIT D-Lab and Massachusetts General Hospital to develop a novel, electricity-free incubator enabling blood culture-based typhoid diagnostics in extremely resources-limited healthcare settings. Lessons in business and user-centered design tell us that we must understand and cater to the specific needs and preferences of our target user. Our users, health workers at rural health posts, cannot currently perform blood cultures to diagnose typhoid because they lack access to reliable electricity and microbiology facilities. Our solution? A novel diagnostic system that leverages a simple-to-operate, portable, and electricity-free incubator, as well as a blood culture test that can be read even by those with little to no medical training.

I spent the summer of 2012 in Nepal, our pilot country, working on a clinical trial at Patan Hospital to validate our diagnostic system, training doctors and nurses to operate the electricity-free incubator, and collecting feedback through field interviews with health workers at twenty peri-urban and rural health posts. We successfully proved our system works and collected very positive feedback from our target users, but we have a long road ahead. Sustainable and scalable solutions not only address user needs and preferences, but also create shared value for all stakeholders, foster collaboration such as public-private partnerships, maximize local knowledge and ingenuity, leverage existing infrastructures, synergize with local and international NGOs, and achieve financial solvency. To do all this takes time and a baseline understanding that there will be enormous barriers moving forward. But I push on because I hold myself accountable to the health workers who do heroic work in their communities despite having inadequate resources. They refuse to fail their communities even though the system has failed them. I decide to push on because I can't fail them too.

I believe that an important component of advancing global health is showing young people that they are never too young to contribute. Young people intimately engaged

in global health should be a norm, not an exception, because innovative and creative solutions can and do come from brilliantly young minds. I have had the privilege of working alongside amazingly experienced and accomplished individuals from MGH, Patan Hospital, and MIT, but never once did they make me feel my ideas were less valuable or less worth pursuing. I think spreading this sentiment will spur the next generation of committed action-takers and leaders in global health. By allowing ourselves to be moved and infuriated by the injustices we witness, and by believing in our own capabilities to be a powerful agent of change no matter what age, we can each contribute towards a better, healthier world.

Shawn is an MIT D-Lab Scale-Ups Fellow. holds a BS in Brain and Cognitive Sciences from MIT, and researches at UCSF's Malaria Elimination Initiative.

The Last Cup of Milk

By *Jennifer Zambriski*

As a global society, we enter a state of alarm when faced with the loss of a species. We sign international treaties; we enter into contracts; we enact laws. We do this because species extinction is a loss suffered globally. But, what if instead of facing species extinction we were confronted with a different type of extinction entirely? What do we do when faced with the imminent loss of a centuries-old culture that is ripe with indigenous knowledge, that is steeped in history and tradition, and that is as much a part of the African landscape as the prides of lions, the herds of antelope, and the sprawling branches of the Acacia trees. What do we do then?

As I was preparing for the journey to the Borana region of southern Ethiopia, my inbox suddenly flooded. There was a surge of e-mails, each one providing new and progressively more disconcerting information on the current state of crisis. Climate change had caused the worst drought the area had experienced in six decades; the landscape was ravaged. As a result, Borana had been deemed one of the most food-insecure regions in the world, which meant that the casualties due to starvation had become too numerous to count. Experts were anticipating that nearly three-quarters of the livestock in the region would perish in the drought's wake, and by extension, I knew the loss of human life would be just as devastating.

I was traveling to Borana not as a tourist but as a veterinarian and Ph.D. student. I was a member of a unique interdisciplinary team that had been charged with providing a multifaceted assessment of the famine and evaluating the validity and feasibility of a new intervention. I would immerse myself fully in Borana in order to collaborate with nutritionists, economists, engineers, and physicians.

In the months prior, we spent countless hours planning and formulating and reformulating surveys. We were preparing to interview Boran men, women, and elders in order to discern how they were coping with the drought. As I filtered through my e-mail one morning, each message more discouraging than the last, it dawned on me

that no amount of planning could fully prepare me. I braced myself, unsure of what I was truly bracing for.

The Boran are nomadic pastoralists, meaning that they herd livestock over vast expanses of land in search of pasture and water. The relationship shared between the Boran and their cattle is elegant in its simplicity and symbiosis. The Boran nourish the cattle, and in return, the cattle nourish the Boran. The milk from a Boran cow doesn't simply serve to sustain life; it ushers it forward. When a Boran infant is named, his mother and grandmother build a hut in his honor and adorn it with traditional milking equipment. Members of his clan present him with a cow, in celebration of the newest life, and are thanked with a cup of milk. On his third birthday, he will be entrusted with the care of his own calf, and by the time he is a teenager, he will have developed an impressive acumen of traditional medicine. As a veterinarian, trained in elite universities, I am inspired by this phenomenon. The Boran have an indigenous knowledge of animal health that is vast in breadth and depth. Tuition cannot buy this knowledge; it must be inherited.

As we traveled further and further south, the landscape became more barren and inhospitable. The trees withered and died. The grass turned into sand. Eventually, all signs of life perished. The landscape was austere and punctuated with the corpses of cattle, their bones picked clean by vultures. In Borana, only the vultures are food-secure.

In the subsequent weeks, I spent countless hours talking with the Boran, teasing out the details of daily life and existence and trying to understand their plight as they did. Women were spending six hours a day walking to collect water, which meant that their daughters were being pulled out of school in order to help maintain the household. The cattle were no longer making milk because they were too malnourished to spare the energy. Pregnant women were skipping meals, explaining that no one hears the cries of the unborn, and that no one can ignore the cries of the famished children standing before them.

A profound feeling of hopelessness consumed me. And so I asked, "Do you think that your children and grandchildren will be pastoralists like your fathers and grandfathers?" The response was unanimous. "No." When I inquired as to why, I was met with the melodic voice of a Boran man with strong features and leathered skin. Resting at his side was his herding rod, an implement of work, but so long carried in his hands that it had become an extension of his self. Around his right wrist was a bracelet made from the hide and dew claw of a goat, and on his middle finger, a ring made from the vertebrae of a calf, inherited from his great-grandfather. He spoke slowly and deliberately, his voice caught in his throat, and the emotion welled in his eyes. Before the translation ever resonated in my ears, his despair resonated in my heart. He explained to me that the climate was simply too unreliable, and that owning cattle and depending on them for livelihood was

simply too great of a risk. “Without the rain, there is no pasture. And if the cattle die, the Boran die too. My cattle are my spirit, my character, my very being. Without them, I can no longer call myself Boran.”

Losing your livelihood is tragic; losing your identity is catastrophic. The cattle are dying, and the Boran culture and its people are following them to the grave. The world is at risk of losing the Boran forever, and yet the world is idle. What will we do on the day the last cow dies in Borana and the last Boran lays down his herding rod, hangs his head, and walks away? What will we do then?

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Two Scissors

By *Tracy Zander*

If they did not take the obviously recognizable shape of scissors, *scissors* would be one of the last terms I would use to define them. The tight soreness of my hand muscles and the immediate throb as I would finish ‘cutting’ just one of many donated bed sheets and tablecloths into equal pieces was a clear sign that the blunt cutting utensil was long past the prime of its shearing life. Sweat would drip down my face, partly due to the blisteringly hot Port-au-Prince sun and partly due to the frustrating level of unproductivity the scissors forced me to work at. The edges I cut were jagged and crooked, despite the fairly large examining table I had to spread the material out. Once upon a time, probably in United States, the scissors had enjoyed a full life before joining the plethora of donated items to Haiti. Now, on the island, day after day, cloth after cloth, the two blades eventually gave up in protest. As if they knew why they were being used ...

Two-month-old baby Emmanuel lay listless on the large examining table. Emmanuel had diarrhea for eight days. His dry mouth, sunken eyes, and tearless cry were enough for the physician to diagnose severe dehydration. The child passively accepted failed attempts to insert the needle into the dried veins in his arms and even in his bald head after shaving his orange-tinted hair (a sign of malnutrition). Finally, an intraosseous infusion was performed. As the needle probed directly into the bone below his knee, Emmanuel hardly reacted. His mother cringed as she realized how gravely ill her baby was. She was too malnourished to produce breast milk, forcing her to give the child either water, food, or artificial milk, likely contaminated with dirty water, that little Emmanuel’s body just could not handle.

Immediately after landing in Miami from Haiti, I traveled with my cousin, a real-estate journalist, to a groundbreaking event. This called for heels and a cocktail dress. As we pulled up to the red carpet leading to the event, I was quickly forced into the

realization that I was not in Haiti anymore. As my cousin interviewed multi-millionaire architects, developers, stockbrokers, and real estate agents, I attempted small talk while trying to wrap my mind around the contrast between the life I led the previous month and the one I stepped back into just hours before. Of course, I took advantage of the seemingly infinite number of hors d'oeuvres, drinks, and desserts offered to me, however, it seemed just as unfitting as having to put makeup on for the first time in four weeks.

A beautiful, thick ribbon with the developer's repeating, trendy logo spanned across the stage. I watched from afar, still getting an occasional look from all the other girls who wouldn't dare ingest as many calories as I was consuming, thanks to the free food. One by one, the most important people, likely the wealthiest, were called to the stage. All stood holding a piece of ribbon as the main developer was handed a pair of scissors larger than the length of my arm. I barely saw him even cut as the direct contact of the sharp blade on the silk was all that was needed for a seamless cut.

A wave of sadness, frustration, and disbelief swept over me as I remembered my little buddy, Emmanuel, and his painful struggle for life. He battled over-rehydration and suffered numerous fevers and bouts of acidosis. I stood by his bed, kissed his forehead, massaged his tiny arms and legs, sang to him, pleaded for him to keep fighting, and prayed for him over and over. But just two days after his arrival to the clinic, Emmanuel's soul would rise to Heaven and his precious body would be placed in one of the very roughly-cut burial shrouds that I had tried so hard to make the useless scissors cut.

These dichotomies exist everywhere. We live in a time where disparities in healthcare, education, resources, and income are the greatest our cities, nation, and world have ever seen. I've seen the numerical data and studied the statistics, but the alarming clarity of such concepts only just made sense to me through the image of two very different pairs of scissors. It is a difficult realization to swallow—in order to thrive in this society, we are conditioned to adhere to certain social norms that are at the heart of the problems perpetrating the injustices. However, as much as I worry and feel discouraged, I am also prayerful and hopeful. In Haiti, there is a proverb that reads, "Lespwa fé viv," or in English, "Hope makes us live." And if Emmanuel's mother still has the courage to repeat those words, the rest of the world should too.

Tracy graduated with a Master's in Public Health from Saint Louis University College for Public Health and Social Justice concentrating in Maternal and Child Health, and plans to become a physician.

Endnotes

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