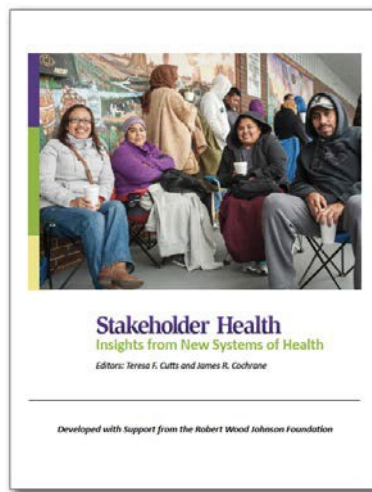# Stakeholder Health

Chapter 10

Global Dynamics at Home

From

Stakeholder Health: Insights from New Systems of Health

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Global Dynamics At Home

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Overview

Stakeholder Health began when a White House delegation came to Memphis to see how an African model of "religious health assets mapping" might be adapted in the US context. As in Africa, the Memphis assessment unveiled about six times as many generative partners as the prevailing official maps showed. In Memphis that meant a huge number of "faith forming things" (congregations), while elsewhere such as in North Carolina the surprise is the number of faith-based community organizations one finds.

"If you do not set high, high ambitions, people won't change the way they work."

*(World Bank Group President Jim Yong Kim on what he learned
from the 3x5 HIV goals set by the WHO. Task Force for Global Health, 2015)*

The ability to perceive the full range of health assets, and how to align, animate and release them, especially in troubled neighborhoods, underpins everything else Stakeholder Health tries to learn. Because this is precisely what is needed anywhere in the world for transforming health care, it makes Stakeholder Health part of a global learning community. The mother lode for this kind of learning is post-colonial Africa, where the health of its people rests heavily on their own energy, intelligence and liberation. That is also true for South Memphis, San Bernardino, or the left-behind urban areas of Detroit and West Baltimore. Stakeholder Health learns the most in, from and with those working in tough places—a very global kind of work.

In this chapter, we open our imagination to think about the increasingly rich, dynamic interactions that are occurring between locally acquired knowledge and global health systems and experiences. Although as Stakeholder Health leaders we are responsible for institutions in the USA, we are also well aware of the challenges of global health. We apply international standards in dealing with certain diseases or epidemics and commonly engage in professional exchanges with other countries and international partner health systems. Increasingly we are learning how to extend our horizons beyond national borders—boundaries that are now obviously imaginary.

Neither the movement of human beings across territories and continents nor the interaction between them across astonishing distances is new. Today, however, this movement and interaction are unprecedented in scope and scale and they are escalating to obscure formal borders. The local and the global are ineluctably and increasingly intertwined. People, ideas, practices, technologies and goods flow from one place to another in progressively complex networks of actions and interactions.

This has major implications for health. Radiologists in Bangalore read X-rays in the middle of the night for hospitals in Akron. Infectious diseases like Ebola show how the effects of particular events can cascade across traditional institutional, geographical and policy boundaries. The relationship between the local and global, is in fact, to use a metaphor from quantum physics, increasingly "entangled."

This "entanglement" goes well beyond links between discrete areas of thought and operation. The dramatic and increasing compression of time and space that marks the globalization of every sphere of human activity virtually guarantees growing entanglement. It forces us to think not just of global health but also of local health in terms of "complex living human systems" that have cascading network effects.

These effects, from the local to the global and vice-versa, include vital network pathways between them that configure the way people access and use health services.

Healthcare must cope with this increasing complexity. And local delivery systems will and do find themselves coping with global challenges in ways that are not only unexpected, but confront mission-driven priorities.

What Do We Mean by Global Health?

What is now described as "global health" used to be called "international health," which was largely focused on controlling the spread of epidemics (Beaglehole & Bonita, 2010). More than a terminological shift, "global health" signals:

• A better grasp of the interconnectedness of health and its contributory factors across national and other boundaries

• Recognition that extra-local, global movements and flows influence local health factors

• Awareness that solutions to population health at local level in one place are not disconnected from those in another place.

"Global health" also signals another crucial shift—from mere disease-control to a conception of health as a human right (Gruskin, Mills & Tarantola, 2007). This is captured in the WHO's post-World War II vision of "health for all." It is echoed now in questions on the availability, affordability, and acceptability of health provision (who.int/mediacentre/factsheets/fs323/en), and underlined in what we know of the social determinants of health (who.int/social_determinants/thecommission/finalreport/en/). In 1984, Bill Foege founded the Task Force on Global Health (first called the Task Force on Child Survival)—which now reaches people in 135 countries (http://www.taskforce.org/)—with the global human rights goal of ending preventable and treatable diseases that assault people living in extreme poverty.

In this context, questions of human dignity and equity are prominent. They are equally relevant to any conception of mission by local healthcare systems that embraces a vision of "health for all" those who live in the areas they reach. They also push us beyond "service delivery"— where, in principle, the deliverer is always the agent and the recipient a patient—to consider how everyone is an agent in her or his own right, capable jointly of achieving the outcomes desired by all. Equity not only signifies the redressing of disadvantage and the promotion of inclusion, a formal feature of justice, but as a critical dimension of any healthy community, "it also helps to create confidence, and a sense of participation and belonging" (Kalula, 2013, p.16). Commitments to preserve human dignity and establish equitable social institutions are constitutive virtues of any society deserving to be called good.

AN EBOLA CASCADE

Ebola triggers its own cascade of thoughts about global connections. Loma Linda University (LLU), for example, has partner institutions in all of the countries hardest hit by the epidemic. Thus, it works with a hospital in Monrovia (Cooper Memorial) where recent graduates are serving, and a current PhD student is the director of the hospital's nursing school. These relationships make the epidemic highly personal. Back in the USA it also becomes an institutional nightmare; one had to prepare, with hugely costly, unbudgeted expenditures, for contingencies one could hardly imagine. 'Even now,' says Gerald Winslow, 'when I go to my MD for an office visit, I'm asked about my recent travel, especially to West Africa.' And though LLU is a small health sciences university with only about 4,500 students, they come from over 80 different nations. The full force of the cascading global relationships we refer to is felt here.

GLOBAL HEALTH TODAY

Global health has gained a substantial profile in our time through the work of bodies such as the:

• World Health Organization (WHO)

• Global Alliance for Vaccines and Immunization (GAVI)

• Global Fund to Fight TB, AIDS and Malaria (GFATM)

• Centers for Disease Control and Prevention (CDC)

• Task Force for Global Health

This is accentuated by the interest in health as a key factor in determining economic and social life, which has been emphasized by UNICEF, UNDP, the World Bank, the World Food Program, and the Millennium Development Goals (from 2015 known as the Sustainable Development Goals). Philanthropic bodies such as the Bill & Melinda Gates Foundation also now play a major role.

Why Does Global Health Matter?

Health care, then, beyond the provision and application of brilliant technological and managerial capacities to combat disease and illness, is a crucial support for the "living human system." To define it as a *human* system and not simply a delivery or health system (or the like) calls forth a commitment to dignity and equity in partnership with all stakeholders. Fundamentally, then, it is not *just* about individuals, but also about establishing the healthy communities within which those individuals live and must find and sustain their own health with others.

Here we face the "constituency problem." Who are the relevant people or partners to whom one owes such a commitment? Does the constituency encompass one's own clients, a service area, a regional authority, a nation-state, or all of humanity? If geographical and even cultural boundaries increasingly turn out to be irrelevant (as in the Ebola cascade noted above; or in the sharing of human organs for transplantation, for example), where are the limits on what we consider the relevant constituency? As the movement of people grows, who has access to care and who does not?

> **"Global health, in this sense, is not about something somewhere else but about one's own location in a much larger, complex reality that has to do with one's own long-term impact and sustainability."**

Such questions, cutting across all traditional boundaries, are central to global health—but they are equally applicable locally. The issue becomes clearer when we think of mobility, risk management and strategies of planning, all of which transcend local realities. In short, not only every government or public health system but also every private healthcare system in the world:

- … *struggles* with how to prioritize healthcare spending—especially in the tension between the dramatic needs of the poorest for basic primary care and the massive costs of managing the growing array of chronic conditions;

- … *confronts*, at some level, market pressures governing access to quality high-tech healthcare and expensive drugs and treatments (often restricted to the upper middle classes);

- … *must find* legislative and/or other means to address the social demand for health and well-being;

- … *faces* the tension—directly impacting upon the provision and acceptance of healthcare—between the powerful medical, technical, and operational instruments it wields (which tend to view a patient as a composite of materials and processes to be managed or repaired), and the complex, socially formed, relationally embedded, and self-directed persons that human beings actually are (see HSLG, 2013, Ch.5).

Notwithstanding different political frameworks and regulatory milieus, we have much to learn in all these respects from what others are doing elsewhere in the world and we hope that they may indeed have something to learn from us.

Movement and dynamic interaction across existing borders and boundaries—geographical, disciplinary, institutional and social—are not exceptions but, now more so than ever, definitive. Global health, in this sense, is not about something somewhere else but about one's own location in a much larger, complex reality that has to do with one's own long-term impact and sustainability. Most fundamentally, it has to do with the "just and equitable distribution of the risk of suffering and of tools to lessen and prevent it" (Farmer, Kleinman, Kim, & Basilico, 2013, Preface). This basic vision of health binds the global to the local and the local to the global, and it incorporates both nation-states and non-state institutions such as non-governmental organizations (NGOs) or non-profits, private philanthropists, and community-based organizations.

Pathologies of Global Health

Just as no one escapes the effects of global ill-health in the end (Kim, Millen, Irwin, & Gershman, 2000), so no one escapes the global marketing and pricing realities that are rapidly emerging in healthcare. The human capacity to invent new and costly healthcare interventions greatly outstrips the human capacity to pay for these interventions.

> **Consider just one recent example: the production and selling of a molecule called sofosbuvir, marketed as Sovaldi by an Israeli company called Gilead (see http://chisite.org/research/the-value-of-sovaldi). This drug is phenomenally successful in treating Hepatitis C. Gilead sells the drug in the U.S. for $1000 per pill. This means that the treatment of one patient will cost about $80K or more. With about eight million Americans infected with the disease, it is easy to see that this one new drug will add billions to our healthcare costs. And this is just one example of which there are many.**

Such considerations drive us to think about the language of life (see further below on Leading Causes of Life) rather than just the language of fighting disease or death. Adopting a more global perspective on such matters, it is readily evident that our current efforts in and dialogues about addressing questions of justice or fairness when it comes to the distribution of great benefits and great burdens are deeply inadequate. We need vital ideas and new frameworks to address these issues, as well as ways of rethinking old models that have not been fully realized.

Think, for example, of the core principles that supported the rise of primary health care (PHC). Its origins lie precisely in an earlier conundrum about the high cost of tertiary (especially) and secondary care in contexts where, for one reason or another, despite the availability of world-class medicine and professional staff, many still had no adequate access to it. PHC was not just a management solution but also a different vision of the place and purpose of tertiary and secondary institutions. Originally propagated by the WHO in its 1978 Alma Ata Declaration of "health for all by 2000," its vision was partly inspired by the Christian Medical Commission, which included leading US figures, working under the World Council of Churches in Geneva (McGilvray, 1981). And it already contained a clear view on what we today call the "social determinants" of health. Stripped of such elements and reduced largely to silo-based interventions (Cueto, 2004), the grand dream of PHC has largely fallen short of its promise—not for technical reasons but for watered down goals and naiveté about the fundamental complicities of power and privilege that create institutional inertia.

The history of PHC also reflects a more general reality. The emphasis of the WHO Social Determinants Commission (2008) on population health has enormous sway in health policy (bleeding over in the USA into notions of "population health management"). As important as it is, it still conceptualizes health care less fully than was done forty years ago. It identifies several key actors (global institutions and agencies, government, civil society, research and academic communities, and the private sector [WHO, 2008, p. 44]) and "three principles of action" (see sidebar on the next page), but it largely overlooks the significance of the communities per se within which people find their lives and their health. In over 200 pages, it only very briefly refers to "the importance of including intended beneficiary groups in all aspects of policy and programme development, implementation, and evaluation" (p. 96). It also barely mentions the need to enact "legal changes to recognize and support community empowerment initiatives will ensure the comprehensive inclusion of disadvantaged groups in action at global, national, and local levels concerned with improving health and health equity" (p.162).

Just as limited as the WHO's discussion of social determinants in this respect is the CDC perspective. It has identified six critical areas for "health systems strengthening" (HSS, another new catch phrase in global health), namely: Epidemiologic information, institutions and infrastructure, laboratory networks,

capable workforce, programs, and research (Bloland, Simone, Burkholder, Slutsker, & Cock, 2012). None come close to incorporating in any meaningful way ALL those for whom it is meant. It remains a technical, managerial approach that limits our ability to figure out how to work across systems in their fullness—including with the communities served in "population health."

Assessing the state of global health research and practice at the beginning of the Twenty-First Century, Panter-Brick et al. (2014) thus forcefully argue that:

- Global health falls prey to deadly sins—coveting silo gains, lusting for technological solutions, leaving broad promises largely unfulfilled, and boasting of narrow successes.

- Global health needs to transform its current landscape to keep faith with its core mandate of promoting health equity.

- Principled action is grounded in ethical values that put front and center the quality of our relationships with the communities served.

- Articulating a coherent global health agenda will come from virtuous courage and prudence in decision-making, fostering people-centered systems of care, and addressing health needs over the entire lifespan.

Stakeholder Health wants to understand how to approach health care provision and access for complex people in complex communities. The idea that anyone, or any one entity can simply "manage" a population to achieve health is inadequate for leaders trying help their institutions and communities adapt. Worse, it could draw leaders into further complicity regarding the ills that are ascribed to global health but that affect us all locally too. Hospital leaders must acknowledge that they are in relationship with their nearby communities. And, as noted in earlier chapters, most hospital relationships with their communities have been marked, when examined honestly, by historical events that merit lament about the past and demand rigor in present day dealings.

Perhaps the time has come to fulfill what was imagined a half century ago. One key shift—still a new thought even for Stakeholder Health—is that a global vision doesn't apply just to "Third World" or "developing countries" (as the CDC position and others describe it), but to the whole global community.

Grasping the Promise: The Future Present

We should speak not only of the "sins" of global health but also of ways of re-orienting action. Right now, perhaps more than ever before, there are particularly good reasons to do so:

- With applied will and intelligence the possibility now exists within global health of a "Grand Convergence"—a realistic chance of reducing infections and child and maternal mortality to low rates universally, and of tackling non-communicable diseases and the impoverishing effects of health expenditures within a generation (Lancet Commission, 2013; Dybul, 2013; Kim, 2013).

- The raised emphasis on the social determinants of health coincides with a global commitment to new "sustainable development goals" (Open Working Group on Sustainable Development Goals, 2014) that include numerous and ambitious measurable aims relevant to health and health equity.

- A specific concern to address diseases that affect the poor is manifest in The Global Fund to Fight HIV, TB and Malaria. As a major 21st Century initiative, it actively promotes and supports an idea of partnership in health that rests on continual growth, driven by mutual respect, shared responsibility and a strong commitment by all (www.theglobalfund.org/en/overview/).

- A rapidly growing interest in health systems research—astonishingly, largely absent before the first meeting of the First Global Symposium on Health Systems Research in Montreux in 2010 (two held since in Beijing and Cape Town, a fourth soon in Vancouver)—signals a deep concern for the interlinked aspects of health care, with working groups on finance, medicine, quality, evidence, ethics, community care and more (www.healthsystemsglobal.org/twg/).

- Widespread and increasingly central chronic conditions that extend over increasingly long periods of peoples' lives call forth a global rethink of costs and the nature of health services. Critically, this pandemic of chronic conditions also highlights the crucial role of appropriate local signaling mechanisms—ways in which families, friends, attentive local leaders or community groups are alert to what is happening to someone around them—and of the accompaniment of people who live with these conditions that hospitals and clinics cannot achieve on their own.

- Our earlier publication (Health Systems Learning Group, 2013) and this volume (Ch. 6: Community Asset Mapping), directs us to think of how one accesses and supports the already existing assets and agency in the communities served, including those inspired and sustained by faith commitments and networks (Olivier et al., 2015; ARHAP, 2006). As such, herein lies the greatest challenge in how we understand individual health in relation to community health on the one hand, and community health to formal institutions of health provision on the other.

GLOBAL HEALTH ACTION

Current literature has highlighted at least six ways to re-orient global health action. Specific future steps are to:

- Strengthen institutional leadership

- Follow a people-centered and life-course agenda

- Theorize global health in a manner which robustly integrates structural and behavioral change in systems of care

- Espouse a coherent strategic frame for financial incentives and effective leadership

- Deliver with more consistency on medical and public health promises

- Listen more carefully to what locally matters in everyday life.

(Panter-Brick, Eggerman, & Tomlinson, 2014, p. 23411)

Seeing the Local Relevance

Many of the issues and concerns that shape transformations in global health are not simply global; they arise from and return to local contexts. The global and the local are not really opposed, then, but "different sides of the same coin" in which general insights and knowledge become available even as "all ideas and practices have to adapt to [particular] contexts and niches" (Robertson & White, 2007, p.62-3). Learning between contexts happens by diffusion and adaptation. There are thus several ways in which the insights from global health have relevance for Stakeholder Health members (and vice-versa).

The first is the changed environment in the USA. The Affordable Care Act has introduced concepts and operational demands that force a reconsideration of health care provision and its accountability structures as a whole, whether public or private. The ideas suggested as crucial for global health action (see sidebar on "Global Health Action") are directly translatable into local contexts, and the ACA pushes in this direction. Second, worldwide, this has given new impetus to the role of community health workers (see HSLG, 2013, p.59-62; this volume, Chapter 5), but also extended it beyond the provision of a service to the idea of 'transformative partnerships' (HSLG, 2013, Ch.6).

Still fully to be grasped is the complexity this involves (as noted in Chapter 1), taking us beyond the walls of our formal health care facilities, in operational and governance terms. Here we add a deeper awareness that many of us already have surprising partnerships beyond the local that can contribute to our mutual learning.

Partnerships Again

Many questions have been raised about partnerships in the context of global health, particularly some of their critical shortcomings. Power dynamics favor the financially and politically strong partner's ability to dictate the terms of partnership, creating an unproductive and ultimately unsustainable one-sidedness in the relationship. "Forming partnerships" is not enough even when those involved genuinely have good intentions and want to move towards equitable relations through these partnerships. Whereas medical education is now moving toward collaboration rather than competition, few great examples exist to define what authentic collaboration means between health systems and communities they serve. Collaboration in health care raises issues of shared responsibility and mutual accountability that have not been addressed in most discussions of the changing nature of delivery systems.

In fact, the relevant learning partnerships are often found by following the threads of existing relationships. These can be surprising; instead of just following them home to a nearby neighborhood, we might well follow them home to a neighborhood a few thousand miles over the horizon. The Somalis out the window in Minneapolis are already a live bridge to northeastern Africa. Look out the other window and the Hmong neighbors are a bridge to Southeastern Asia. Those bridges tend to be marked by "mission" and care for the needy, but they are also clues to where to find resilience and adaptive practices relevant to many challenges in Minneapolis—or Atlanta, Winston, San Bernardino, Miami or Houston.

Key Reference Points

The globe is round and if we go far enough one way we will actually come back home—all of the lively domains of global health learning and policy elsewhere are alive and contentious in every county in the United States. Some are particularly relevant to the learning process upon which Stakeholder Health has embarked. We introduce them here, adding our own thoughts about potentially fruitful directions of thought and learning.

A. NEITHER UPSTREAM NOR DOWNSTREAM: PRIORITIZING MEDICINE IN THE 21ST CENTURY

How do we prioritize services in the face of growing and aging populations, shifting patters of life-long chronic illnesses, rising costs, changing professional goals, and increasing specializations (Cochrane, 2015)? Neither "vertical prioritization" (a hierarchy of choice within a special field or group of patients) nor "horizontal prioritization" (a hierarchy of choice between special fields or types of illness or disease) is best.

Arriving at a fitting answer is confounded by the conceptual split between "upstream" (distal) and "downstream" (proximal) interventions, which imposes a linear logic on the way we do things. This prevents a clear grasp of the interacting causal pathways that operate at multiple levels (body, person, family, community, society, polity, economy and environment), sequentially or simultaneously, to shape health and ill-health. We tend to emphasize one against the other and allocate our resources and energies accordingly. So we fail to account for or adequately respond to the full ecology of human health (Krieger, 2008; Manchanda, 2013).

We could think in terms of turbulent circles of interacting energies, of a vortex rather than a linear stream, of whirls with continually shifting centers moving in constantly interacting ways. That would mean paying attention to the dynamic whole within which any particular level can have a direct impact on any other even when they are not "proximate" in space and time. Reimaging health care along such lines would force us to reorganize the way health care delivery is understood, over the lifespan of individuals and of populations, as an ecological whole. Within this ecological whole, we would need to identify both pathological patterns, but also generative ones, beyond the limited set of levels and limited range of responses that hospitals can address on their own.

B. EMBRACING THE MIX: TRANSCULTURAL "HEALTHWORLDS"

Part of that turbulent vortex includes increasingly diverse people or groups who hold visions of health and well-being that are often not compatible with what a hospital or its professional staff think they are about, yet which can and do have considerable impact on if, how and when someone accesses any formal health care services and what else they do "out of sight" of the formal protocols. Health system providers have looked for ways of providing culturally competent or culturally sensitive healthcare delivery but this only goes part of the way. We expand this to include the idea of "healthworlds": the ways people construct their understandings of health and illness in local contexts through coherent, organized patterns of interpretation that guide their health-seeking behavior, as shaped by culture, sociopolitical context and environment (Germond & Cochrane, 2010). These healthworlds reflect a transcultural reality with which health care providers have to come to terms, paying attention to them critically but also insightfully and appreciatively. This also reflects a growing movement in healthcare delivery to focus on dyadic partnerships between activated, informed patients (who are increasingly accountable to outcomes) and providers (Epping-Jordan, et al., 2004).

C. POPULATION DYNAMICS: TRANSNATIONAL MOVEMENT

The migrant has been called the "political figure of our time" (Nail, 2015). Migration has always been with us across the globe, but qualitative shifts are affecting the way this plays itself out. These shifts impact upon local realities as more people move more frequently, while greater diversity (with all its challenges) in local populations increasingly becomes a norm. Migration is no longer the exception but increasingly the rule in matters of polity and citizenship, with direct impact on health systems and nation-state understandings. Sociologists speak of "transnational" flows that, despite controls, do not obey the constraints imposed by existing nation-state boundaries (Vertovec & Cohen, 1999). Moreover, thanks to contemporary modes of travel and communication, people who migrate now move less from one place to another and more in an oscillating pattern between places, exchanging material and immaterial goods across space and time in unprecedented ways.

Health care provision is also affected by this oscillating system of ties, interactions, fluid exchanges and high levels of mobility that are often intensive, function in real time and impact upon the numerous spaces that people on the move now occupy. We do not yet know how important this is and to what extent it affects population health (either negatively or positively). The USA is a country built up-on

migrant populations but with policies and programs largely still framed within the traditional, more static view of what migration means. Global health research suggests that the phenomenon may become more important, especially as diseases and illnesses migrate more easily for the same reasons, in complex ways and in multiple directions. What is true of disease and illness would be true of both tangible and intangible assets for supporting and enhancing health as well.

D. LIVING SYSTEMS: PATTERNS, NODES AND PATHWAYS

We need a more mature science of complexity around health systems, including a more complex view of what we mean by a health system. Our earlier document began to consider some dimensions of what this might mean (HSLG, 2013, Ch.3: "Leading Health Structures", & Ch.6: "Integrating Community & Health Systems") and Chapter 2 in this volume alluded to the foundational frameworks needed as we begin this task.

Sir Muir Gray (2011) thinks that "If the 20th century was dominated by bureaucracies and markets, the 21st century will be dominated by collaboratives, cooperatives, networks or complex adaptive systems." He thus advocates a "systems approach'" to health care, defined as a set of activities with a common set of objectives, focused on particular illnesses or diseases but cutting across the traditional division between primary, secondary and tertiary healthcare. It is thus still limited to the delivery of health services by professional providers through what he calls "care pathways" that navigate patients between the levels of care.

Besides really still representing a focus on "illness care" rather than "health care," there is only limited discussion of how, if at all, others outside of the formal healthcare facilities might be part of this. Currently, some of this focus already exists in many community health centers in the USA, whose Boards consist of local citizens.

Unfortunately, our understanding of a health system still revolves primarily around an inside-out approach (from provider to client). As long as this functions as our primary intellectual model, we cannot adequately take account of the complexity of health challenges and opportunities, nor of our relationship to communities we serve. Whether we are speaking of medicine or of care and health more generally, our interventions are in living systems. Without understanding more about such systems, we will not be able to achieve the goal of health for all that meets our mission.

Here sciences of complexity such as neurology provide us with useful (and applicable) metaphors for rethinking the way we organize ourselves. In particular, complex systems are networks of nodes and pathways, varying in density or impact. The hospital, clinic or dispensary are only some of the nodes that matter, and the pathways to health they provide are not only relatively limited but often even not the most important ones except at critical moments.

A further implication follows: complex living systems also generate qualities that are an expression of the system as a whole and not of particular nodes or pathways. This thought has important implications for how one might understand population health, including how one might measure its status. In these metaphors, three ideas are worth exploring: patterned complexity, generative nodes, and effective pathways (see Sidebar).

- **PATTERNED COMPLEXITY** - Complex systems are dynamic, emergent and partly unpredictable, but they also exhibit regular and repeated patterns at multiple levels (they are 'fractal') that can be grasped and worked with to advance health. The 'leading causes of life' framework captures on such a set of patterns that are applicable from the biological to the global level.

- **GENERATIVE NODES** - By generative nodes we mean those organizations where differing streams of thought, innovations, and relationships come together to form a hub capable of generating fresh approaches to community health development. Networked living systems survive and flourish because of the presence of generative nodes (one may also speak of 'keystone species' in some contexts). It would be valuable and possible to identify these nodes and nurture them towards 'life.'

- **EFFECTIVE PATHWAYS** – Network pathways that connect nodes in differing ways represent crucial communication and action channels. Again, it should be possible to track the most effective pathways between generative nodes within the system while identifying those that are degenerate, ineffective or redundant. This could be key to adaptive and more durable health care practices and interventions.

E. LEADERSHIP FOR LIVING SYSTEMS: INSIDE OUT, UPSIDE DOWN, CEDING CONTROL

Living human systems are dynamic, ever-evolving, self-organizing networks that have a "logic" of their own. They include a degree of unpredictability and their processes are out of our immediate or direct control. Yet the more we grasp and adaptively work with them, the more we may be able to look forward to a time, even if still a distance away, when quality is normal and care is rationally aligned. We need better ways of understanding the impact of interdependent variables, context-dependent network relationships, time-dependent variation and forms of local control. Yet it is common to discuss them, particularly within hospitals, as designed institutions: predictable and serving efficiencies.

In a hospital institution dedicated to preserving itself, predictability and related resource allocation will seem dependent on a precise knowledge of averages and aggregations. In the complex system, averages and aggregations may be relatively meaningless because of the interactions and relationships of the parts. This has enormous implications for health system operations, accounting and research. We should be able to understand human living systems with a rigor to match that applied in understanding pathologies. We should also be able to rethink accordingly the meaning of the "data-information-communication-understanding" continuum of learning. All of this also has critical implications for the way we lead our institutions, with a view that encompasses a far more expansive approach than traditional accounting and modes of operational functioning allow.

As discussed in Chapter Three on "Leading Health Structures", we advocate that health system leadership recognize what has already been stressed repeatedly in this volume: markets, persons served or populations, migrant streams, infectious disease and chronic disease patterns, data and payer panels and more, exist in living systems that are in constant chaos or flux, and cannot be controlled or managed. These factors must be dealt with adaptively and proactively rather than reactively. This is possible not only because of our own institutional capabilities but also because complex adaptive, living systems possess the capacity to change and learn from experience. This calls for what we have in Chapter Three described as an inside out approach to leadership, in which the intelligence of the community outside the health systems guide our work as it expands beyond the hospital walls.

At the same time and in reality, healthcare systems are themselves complex adaptive human living systems. As such, they are also messy, unpredictable, and fraught with multiple and diverse relationships and meanings. The adaptive nature of these systems, both within and outside hospitals, means that as externalities change, so too do the relationships among the elements change.

In this respect, a "living systems" approach also confronts the harmful assumption that positional power is the only form of power that matters in an organization. Yet there are many forms of power. Leaders with a "living systems" view will seek to identify these kinds of power and those who use them as an important step in building cohesion and stability. They will humbly seek out those who understand and wield these differing kinds of power and reinforce the continuous learning necessary to support, encourage and realign practices. This will often require that we intentionally and without guile flip the power dynamics and turn them upside-down, that we as providers and the hospital as institutions cede power to those typically marginalized both within the hospital and outside in community, valuing and honoring the intelligence of those persons and communities.

F. FACES & PLACES: MORAL RESPONSIBILITY

At the heart of the vision of medical science and of those whose passion is to work for the health of individuals and the health of all is the question of means and ends. For Stakeholder Health, the overarching end is health for all, which is of course very different from merely "health care for all". Though no single institution or even network of institutions can assure this end, it serves as the universal lodestar for understanding our particular contribution and must take into account all those who have a stake in their own health and well being.

Here the question of accountability and its mechanisms becomes central for any particular leader or institution. We deal with this in two ways below: a consideration of what we might understand by working with the complexity of human life ("World Three" and a "language of life"), and in some implications for how we might understand accountability as going beyond the institutions or organizations for which we are responsible.

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FROM WORLD ONE TO WORLD THREE: COMPLEX LIVING SYSTEMS

- The promise of **World One** is arriving at the point where all the component tools and practices for improving health are dependably competent, efficient and fairly available to those who need them. We cannot treat lightly the successes of process improvements that have been achieved in this regard, though it remains only a first basic step.

- **World Two** is marked by thoughtful gains and synergies achieved by integrating and aligning the many tools, procedures and techniques for detection, prevention, treatment and management of disease conditions. This is within the range of most schemes of population health management and their common focus on illness and disease.

- The essence of **World Three** is that its primary organizing logic rests on the causes of life rather than the causes of death—a fitting language for the complex, fluid social life of human populations. Here the many parts of our institutions, guilds, networks and relationships, including the huge array of now-relevant community partners and social assets, find alignment in contributing to the life of people and the life of the social whole.

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World Three: Working with the Complexity of Human Life

Global health emphasizes health as a human right and aims at "health for all." In both respects the last two centuries has seen major advances, yet much remains a hope rather than an achievement. A lesser, seemingly more reachable, golden goal of global health is disease eradication. Here current developments in science, technology and funding are promising but not enough. As a recent high-level international assessment confirms, "Even when the biological, technical and operational criteria are by and large favourable" the eradication of a disease will also depend upon non-biological "critical enabling factors" (Cochi & Dowdle, 2011, p. 99), like social complexity, political will and moral judgments—in short, vital qualities of a human living system. A good example is the ongoing campaign to eradicate polio, always affected by local human realities and large system rigidity or brittleness in changing methods.

The future in global health/local health, then, may well in part depend upon conceiving not just of morbidity and mortality (or pathologies and "death") as key points of engagement and investment, especially because now chronic disease and mental health issues are so dominant. Equally rigorous attention needs to be given to leading causes of life: generative processes—biological, personal, relational and social—that sustain and enhance health and well-being in the first place. We think of this as moving from World One to World Three (Gunderson, Cutts & Cochrane, 2015).

A Language of Life

With such a vision, we begin to see people and their groups in terms of how they find their life by identifying and tracking a select but operationally meaningful set of factors that "cause" life. This opens up a significantly different way of organizing the strengths, structures and assets of the health sector with people for whom they might be relevant.

A "language of life" conceptualizes a living human being, beyond mechanics and disease, as a complex, adaptive, choice-making, meaning-rich, generative, future-seeking creature that is alive. Not able to be controlled rigidly, not merely following instructions or prescriptions, perhaps as likely to be non-compliant as not, a human person is alive, filled with the potential of creative freedom ("spirit") and capable of more life. That energy, expressed at social scale of community and populations, allows us to think of healthy human populations and not just of managing the care of a group of mammals.

Harnessing, nurturing, encouraging and creating space for this life, and then aligning it with all that we have gained from Worlds One and Two, is the task of World Three health systems (Gunderson, Cutts & Cochrane, 2015).

Here we are also talking about a conversation to share and explore an entirely new healthcare vocabulary—new words that guide decisions and interventions to improve well-being and vitality. Among the words in this new vocabulary of a language of life are connection, coherence, agency, intergenerativity and hope (Gunderson & Pray, 2006; Gunderson & Cochrane, 2015, p.59-79).

In healthcare and medicine we often use the word system in the sense of "an assemblage of parts" that describes discrete units of understanding to form a unitary whole. The task of the Supporters of Health (see sidebar above) is different: it is both to discover and to strengthen the unitary whole, and to do it by finding connections, etc. among the discrete units or issues of care and community. These staff work with a "living system."

Implications for Stakeholder Health?

The implications we draw here from our whole discussion of global health are easier to write down than act upon. Even conceptualizing these ideas may be difficult for leaders who must contend with a failed model of fee-for-service healthcare and who are trying to operate demanding and busy hospitals and clinics in the face of what often appear as impossible complexities and competing or conflicting agendas. Moreover, in any institution dedicated to its own preservation, careful attention will be given to the sources of funding for paying the bills. Funding arrangements do more to structure healthcare systems (or the lack of a system) than most other factors. We are beginning to see this point in action, as the major governmental sources of funding begin to shift their reimbursement schemes.

So perhaps our experience might be described as having one foot firmly planted on the dock of World One, and the other on a bobbing boat headed slowly toward World Two with World Three barely in view as yet, if at all. Yet sooner or later World Three will be the future. How then does one jump into the future without drowning?

Perhaps this work we are doing in Stakeholder Health can help. Thinking about how global dynamics "come home" in local healthcare systems is more than an exercise in comparing local and global realities or distinguishing between different levels of decision-making and action. It means thinking of a "fractal reality" in which patterns at one level (e.g. global) reappear at every other level (e.g. regional, local, or even in the guise of a single individual human being). As long as we are taking seriously the complex entanglement that shapes the health of individual human beings, of groups of human beings and of populations as a whole, what is learned at one level is intrinsically relevant to another. The lessons learned from cardiac care and recovery, for example, have been essential foundations of the wellness movement. Another example is the mass immunization campaigns have taught even small hospitals the importance of checklists, supply chain integrity, and so on.

On that basis, we identify at least six key implications for thought and practice around health and health care at both global and local level.
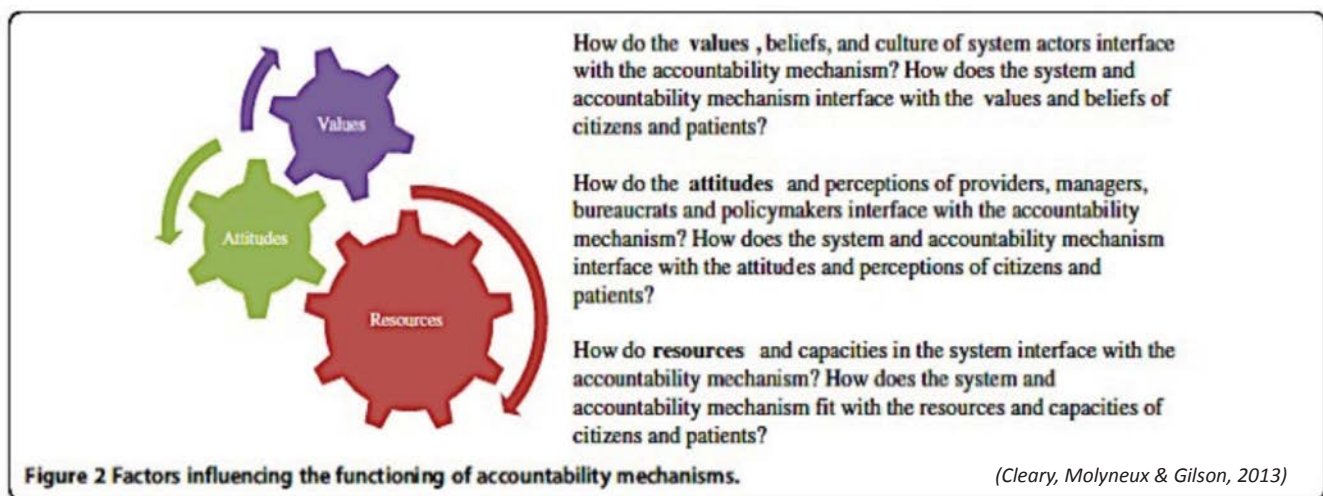
1ST IMPLICATION: PRIORITIZE LIVING SYSTEMS

To evaluate effectiveness a hospital system may seek measures of financial impact or indices of increased health literacy, and these measures will serve short-term goals; but real evaluation will only be valid in a perspective of long-term emergent change and the learning that has resulted. This takes patience and courage, as well as a profound and humble willingness to abandon what is comfortable and challenge what is denied. Then, we can discover what is at this point invisible to us, yet critical to health, and we can learn from ambiguity within the realization that we must remain uncertain out of our respect for the life in the living system.

2ND IMPLICATION: EXPAND THE UNDERSTANDING OF ACCOUNTABILITY

To whom am I or are we accountable for what? This can be answered narrowly but we pose the question broadly, framing it in terms of the differences between 'internal accountability', 'bureaucratic accountability,' and 'external accountability.'

- **Internal accountability** – being answerable for one's skills or expertise (as a scientist, a technician, an administrator, a health care professional, etc.)

- **Bureaucratic accountability** – answerability between different levels of the formal health system

- **External accountability** – answerability between health provider and community.

How do the values, beliefs, and culture of system actors interface with the accountability mechanism? How does the system and accountability mechanism interface with the values and beliefs of citizens and patients?

How do the attitudes and perceptions of providers, managers, bureaucrats and policymakers interface with the accountability mechanism? How does the system and accountability mechanism interface with the attitudes and perceptions of citizens and patients?

How do resources and capacities in the system interface with the accountability mechanism? How does the system and accountability mechanism fit with the resources and capacities of citizens and patients?

Figure 2 Factors influencing the functioning of accountability mechanisms.

(Cleary, Molyneux & Gilson, 2013)

Internal accountability is obviously what one wants at the highest possible level and we take that for granted. Of greater relevance to us here is the tension between bureaucratic and external accountability. Cleary, Molyneux and Gilson (2013), who are on the cutting edge of new health systems research work, note that how one regulates this tension using which 'governance' tools is deeply affected by a combination of values, attitudes and resources (figure 2 above).

In this view, a key consideration is the link between organizational culture, relationships and accountability processes. Here Cleary, Molyneux and Gilson speak of the importance of the "decision space'' that one enables. Commonly, to create some accountability between the health provider and the community it serves, the decision space is constructed by seeking community representation on clinic committees, by presenting reports, and by instituting complaint mechanisms. This is too limited an understanding of accountability, however. In practice it readily leads the patient/individual to false expectations and flawed optimism even as it leaves the formal health system wholly "in charge." And the notion of credible and fruitful partnerships is almost entirely absent.

The size and scope of private and public formal health care systems, and the influence and money they wield, gives them significant power and money to affect people's lives and well-being. As noted before, this power differential acts as a barrier between citizens and providers and limits, sometimes severely, any adequate functioning of external accountability mechanisms (Brinkerhoff, 2004). To balance this with stronger citizen engagement, involvement or participation is a challenge as we aim at "deep accountability" (Gunderson & Cochrane, 2012, Ch.9) for the health of the population we serve. Here "system learning" could become a key aspect of enhancing accountability in both directions, and as a way of handling the tensions and conflicts between them that are inevitable.

3RD IMPLICATION: DEVELOP THE NECESSARY SCIENCE OF COMPLEXITY

In working with living systems, we need evidence that matches their emergent, adaptive, dynamic and entangled yet always partially indeterminate complexity (think of a detective weighing clues) rather than data derived from tools designed for nonliving systems. Sorting evidence rather than data is important especially when we recognize that interconnectedness means that there will be increasing variation in any living system. Evidence includes narrative, reflections and deep searching for tacit knowledge beyond instrumental measures and a stronger valuing of these qualitative metrics. Evidence-based medicine tells us what to do, not how to do it.

4TH IMPLICATION: ADVOCATE "NURTURE" ABOVE "CONTROL"

The great virtue of scientific medicine is that it helps us identify particular health problems with increasing precision and explanatory capacity, while giving us measurable outcomes. This tends to drive from sight, however, the communicative and relational nature of human life. Equally virtuous then is a focus instead on the practical, on "what works" to establish, sustain and enhance health for individuals or communities, how they can and do draw on their own creativity and resources for health in the living system they inhabit. Here we face the tension between the skills that experts and organizations need to function well with financial accountability, and the creative capacities and living assets that communities can leverage as co-creators of their health and well-being.

Surely, though, we are able to imagine and invent ways of turning this either/or into a both/and? To do that we would need simultaneously to cultivate the skills of instrumental reason in both our scientific activity (medicine) and our organizational operations (administration) even as we act to nurture the creative capacities that reside in the human beings both inside organizations and in the communities to which they relate. These life capacities are not limited to intellectually or scientifically trained experts or confined to particular institutions or guilds. They are present everywhere, and they are the stuff that allows for invention and innovation.

To nurture the whole as a living system is to honor not just what the scientist and the administrator brings but also lay competence in communities (even among one's own employees as shown by the experience of the Supporters of Health at Wake Forest Baptist Health; see sidebar, "The language of life in action," above). This redefines the relationship between providers and recipients of health care as one of mutual learning and mutually acknowledged responsibility for the health of the whole.

5TH IMPLICATION: GO BEYOND SIMPLE PARTNERSHIPS AND EXCHANGES

Stakeholder Health, as in its first learning document (HSLG, 2013), continues to explore the meaning of partnerships and further thoughts on what they are or could be and mean. So we re-emphasize how important it is to include uncommon and unanticipated partners, including those with their own set of assets and community benefits levers, such as banks.

Given the complications of power and money in every context, it is in and through partnerships that we necessarily face the issue of health equity, so crucial to contemporary concerns in global health but no less relevant in almost every local context (Daniels, 2007). We need more conceptual and practical work on health equity, and we need more imagination around what it means for our systems. Partnership, as Paul Farmer has said, is "not just forming a task force or a multi-sectoral approach, it's a lot more than that. It's understanding when we get stuck …. [the need] to imagine a world in which we don't need to be socialized for scarcity. That's the biggest problem, that we have this profound failure of imagination …." (Task Force for Global Health, 2015).

6TH IMPLICATION: ACT LOCALLY, COMMUNICATE GLOBALLY

Local learning as we have said is not simply local, and Stakeholder Health is a prime example of that. It is not surprising that Stakeholder Health's earlier HSLG document has garnered interest from others in other parts of the world. Despite different regulatory, political or economic environments, many of the same concerns are present well beyond the particular peculiarities of the USA or North America. What we learn is not only of potential significance to those with whom our own institutions are linked across the globe, but to many others as well in the context of global health.

One of the great positive lessons of the Primary Health Care movement is the fact that it rested on a non-hierarchical and open-ended global sharing of local learning out of which arose its vision of the possibility of health for all. In the more recent global fight against HIV and AIDS, notes Matshidiso Moeti (World Health Organization Regional Director for Africa), "What we started to learn was that … there are certain things that need attention ethically – justice, inclusiveness, dealing with everybody – and paying particular attention to these, not hoping that by accident in enlarging and scaling up services that … things would trickle down …." (Task Force, 2015).

One of the great strengths of Stakeholder Health is that we mirror both a similar commitment to learning within the USA, and across our member institutions, and a similar awareness of the relationship between the moral demand shaped by our mission and professional demand to honor high quality science and deeply accountable management for health care. Through the living dynamic of the learning process we have put in place for ourselves and the global awareness of many of us and our partners, we represent and model an ethos and commitment that is open, in the spirit of collaborative learning, to others elsewhere in the world who share a similar vision. In a world where borders and boundaries are less and less relevant to health care, this can only benefit and even inspire all the many stakeholders found in our "living systems," not least we ourselves.

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