Spirit and the Health of Complex Human Populations[1]

Gary R Gunderson

Since humans managed to walk on two feet there has never been a culture that did not include symbols, language, song and structures of meaning and hope. We painted on cave walls and surely told stories of creation, mapped the stars and found ways to bury those we loved in ways that honored hope as well as grief. That's we find our way on the journey of life and health, especially at the scale of communities. So it is one of the curiosities of our time how often these most obvious characteristics of human culture are so often left out of important discussions as we once again try to find our way. You don't have to know many humans very long to notice the odd and sometimes dangerous dimensions of faith. But surely there is an odd and sometimes dangerous effect of leaving it all out just because the typologies were fluid and the data messy. Excluding spirit from the discourse strips the human phenomenon of one of our most defining characteristics. It's bad science.

The capacity of faith to warm and burn—sometimes burn the whole house down—can no longer be ignored. Spirit is an irrepressible dimension of the human way. We see this in the most intimate spaces where sexually transmitted diseases find safe harbor in the patterns of silence, in the ways that Ebola viruses take advantage of our burial practices and in the ever-intractable social determinants of race, poverty and place.

When Dr. David Larson died fourteen years ago it was possible to think of spirituality in medicine as a different kind of field as public health. The fields are now converging, which poses different questions to faith amid the intellectual ferment about population health, and its more

[1] These notes began as the text for the David B. Larson Memorial Lecture, given at the Duke University School of Medicine March 3, 2016. I was not David's close colleague as was Drs. Koenig and Levin, who sponsor the lecture series honoring him. But I knew David as a lively, brave intellect and clever intellectual entrepreneur. It was an honor to speak in the light of his life. Gary.gunderson@gmail.com

clinical cousin, population medicine. This is not just a move toward "big", but a move toward human *complexity* beyond what the field of faith and health normally engages.

Spirit and Health.

I want to be clear that every single time I use the word "health," I mean all four bio-psycho-social -Spirit dimensions. There is no broken bone that is *only* bone. There is no spirit detached from social, psychological and biological precursors and consequences. There is no social life that is not of biological consequence. That's how we come; that's how we go and that's how we find our way in between. This is *not* how most medical researchers shape their hypotheses and choose methods even about such obviously complex issues like inequity, which is why most of the findings are thin gruel. Our partners in theology are more likely to talk of the complexity, as they have been working in the deep end of the mysterious pool for several millennia. Sociologists of religion know that religious identity hides as much as it reveals and that it changes during one's life even if the vocabulary remains. But they usually stumble just where the health sciences are strong. We can do both better with some humility and courage.

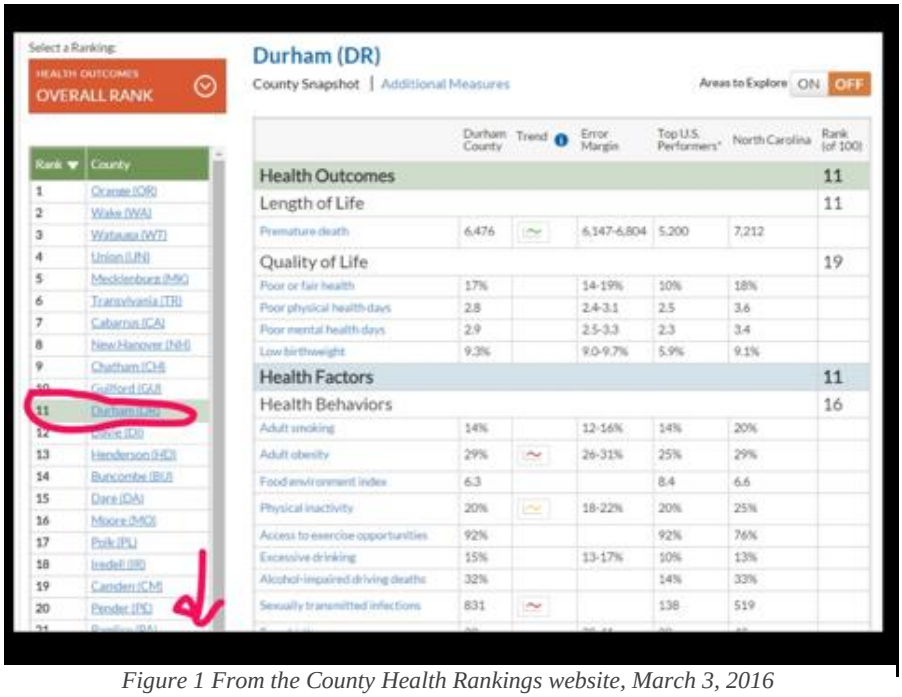


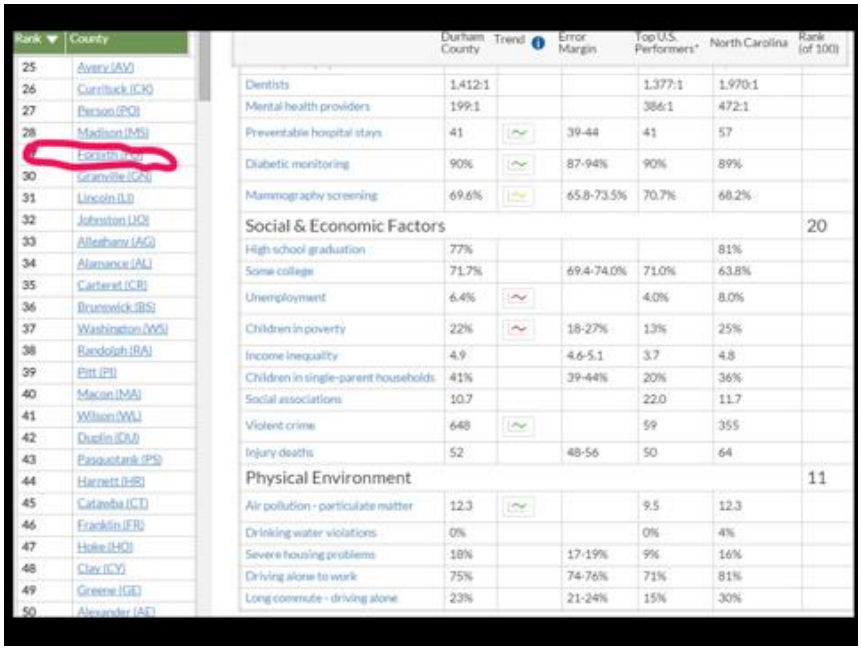
Figure 1 From the County Health Rankings website, March 3, 2016

What does Spirit and communities of Spirit have to do with the health of complex hu-

man populations? The radical part of the question is not the scale (populations are *big*) but the complexity. What does spirit have to do with life in ever more complex, interwoven social reality in Winston-Salem, San Bernardino, Cape Town and Durham?

Today it is commonly accepted by health science that perhaps 20% of the determinants of health involve access to medical care, even preventive. The Robert Wood Johnson Foundation supports a massive website at the University of Wisconsin that allows us to compare ourselves as counties: Forsyth being 43th in North Carolina, Durham, 9 and Wake , 2. This is a sophisticated model that is a major advance in helping community actors recognize their role in a complicated drama. However, it is still missing factors that any cultural anthropologist would consider basic to any culture in the world, certainly our peculiar one with the 50 States.

You can dig deeply into their data model and still not find faith or mention of congregations of any faith tradition. This is not a subtle factor, like the almost-impossible-to-notice cosmic gravitational waves recently proven by astrophysicists. You have to actively *decide* to *not* see the social structures of spirit. I think the researchers in Madison could look out their window and see the Methodist church where my parents got married 90 years ago that is still cranking along as a social engine, long after their passing. Is it accurate that many thousands of social-spirit structures have *nothing* to do with population level health? As in other life sciences, it is unwise to assume that just because we don't understand something (peptides or pancreas) doesn't mean it is not important to the system. The golden rule of science is to not look away from a large scale phenomenon you don't



Rank	County
25	Avery (AV)
26	Currituck (CK)
27	Person (PO)
28	Madison (MS)
29	Forsyth (FO)
30	Granville (GN)
31	Lincoln (LI)
32	Johnston (JO)
33	Alleghany (AG)
34	Alamance (AL)
35	Carteret (CR)
36	Brunswick (BS)
37	Washington (WS)
38	Randolph (RA)
39	Pitt (PI)
40	Macon (MA)
41	Wilson (WL)
42	Duplin (DU)
43	Pasquotank (PS)
44	Harnett (HR)
45	Catawba (CT)
46	Franklin (FR)
47	Hoke (HO)
48	Clay (CY)
49	Greene (GE)
50	Alexander (AE)

	Durham County	Trend	Error Margin	Top U.S. Performers*	North Carolina	Rank (of 100)
Dentists	1,412:1			1,377:1	1,970:1	
Mental health providers	199:1			386:1	472:1	
Preventable hospital stays	41		39-44	41	57	
Diabetic monitoring	90%		87-94%	90%	89%	
Mammography screening	69.6%		65.8-73.5%	70.7%	68.2%	
Social & Economic Factors						20
High school graduation	77%				81%	
Some college	71.7%		69.4-74.0%	71.0%	63.8%	
Unemployment	6.4%			4.0%	8.0%	
Children in poverty	22%		18-27%	13%	25%	
Income inequality	4.9		4.6-5.1	3.7	4.8	
Children in single-parent households	41%		39-44%	20%	36%	
Social associations	10.7			22.0	11.7	
Violent crime	648			59	355	
Injury deaths	52		48-56	50	64	
Physical Environment						11
Air pollution - particulate matter	12.3			9.5	12.3	
Drinking water violations	0%			0%	4%	
Severe housing problems	18%		17-19%	9%	16%	
Driving alone to work	75%		74-76%	71%	81%	
Long commute - driving alone	23%		21-24%	15%	30%	

understand, yet.

You'll notice that, for all its depth, the model of the county health rankings is more like a stack of complicated factors rather than a complex system. It helps us count what we've got and notice what we don't. But it doesn't help us see what is possible beyond the current actuality. And it doesn't help us see how the complex system *moves* or*,* better*, lives*. It has no room for what the theologians would call *dunamis*—spirit in motion.

The mainstream intellectual models of the drivers of health pay more attention to the environmental factors—the complexity of how human systems are integral with the natural systems of water, food systems and large-scale climate. Cultures long tuned to those factors, such as the First Peoples', say

Figure 2 From the County Health Rankings website, March 3, 2016

these are not merely biological links, but also contain social, psychological and, quite profoundly, spirit dimensions. Certainly, if the goal of understanding the complexity is to generate a future different than our current actuality, we need to act from all four dimensions.

Another now common way of seeing the interplay of health factors is as a process flow such as we see in the slide by Tom Nolan and colleagues at the Institute for Healthcare Improvement. Again, you won't recognize your mom, teenager or yourself in the flow chart. But if you have

good eyes, at least you'll see spirituality inside the *individual* box linked to *personal resilience*.

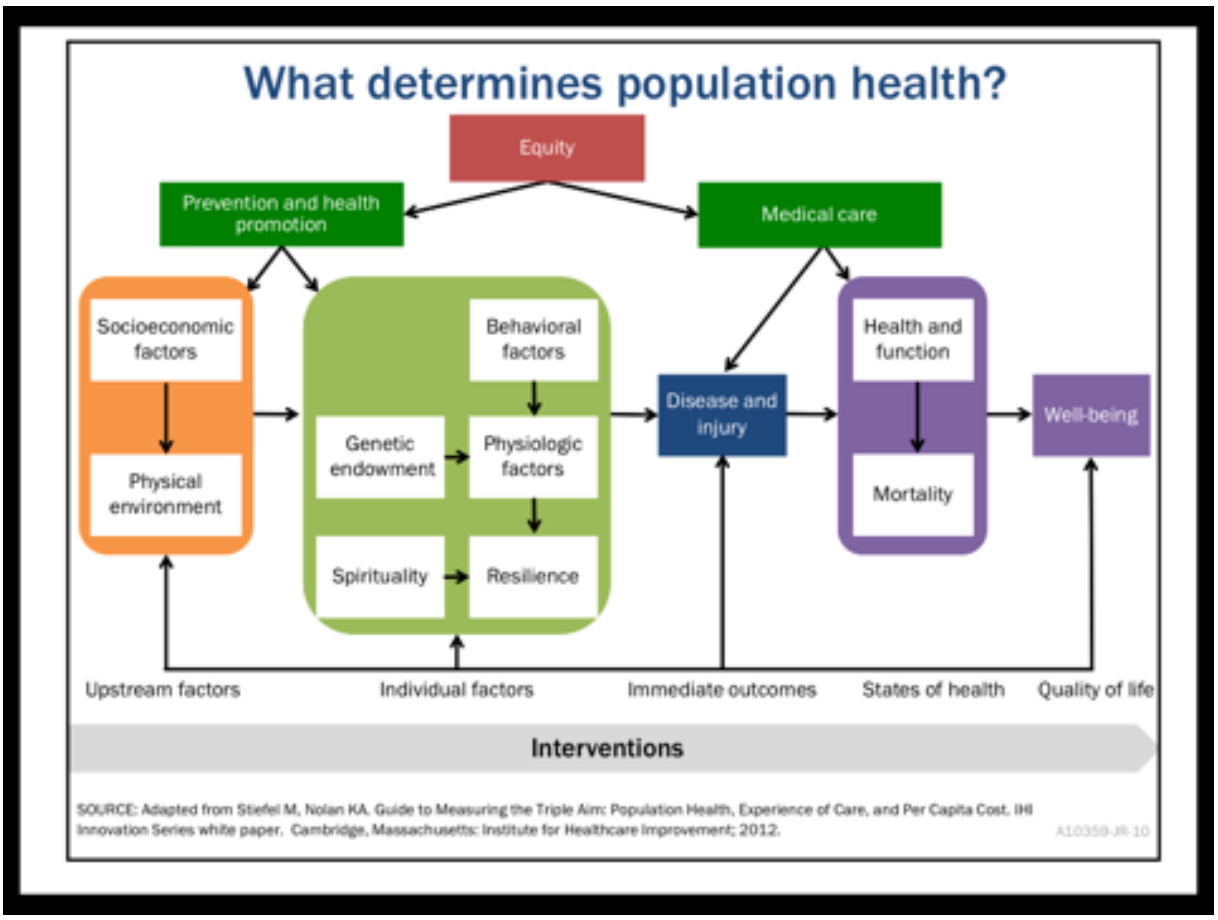


Figure 3 Adapted from Stiefel M, Nolan K. A Guide to Measuring the Triple Aim: Population Health, Experience of Care, and Per Capita Cost. IHI Innovation Series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2012. (Available on www.IHI.org)

This is better than not being on the map at all. But is it the *only* place where spirituality functions on the causal web of drivers of health at population scale?

Taking a history

Even those most thoughtful about the religious role in health tend to miss when the dialogue moves to complexity and scale, as population health must. I remember in 1994 reading the *Handbook on Religion and Health* by Larson, Koenig and McCullough when it came out and shaped the field. I read through 20 pages of bullet points of the history, the high point of which was the golden age of non-profit faith-based healthcare in the 1960's. Neither Mahatma Gandhi nor Rev. Dr. Martin Luther King made it into the history, although their work of word, and deed, improved the tangible health status of more lives than all the hospitals built since St. Basil

invented the first one (he was in it). King and Gandhi and many other movement leaders de-breeded social wounds with sophisticated theory tested against social outcomes. They teach that the social determinants are not determined at all, for complex human systems are not just capable of resilience *but* also adaptive transformation. Of course we are.

Jonas Salk was a cellular researcher, social healer and a man of deep reverence but no religion. His work on polio is regarded as an epochal achievement of technique and technology. It was also a high art of social mobilization, which gave him hope of even higher social advances. His book, *The Survival of the Wisest*, found hope in the fact that little of human behavior is hard wired. There are points of inflection in complex human systems where humans can *change*. At those points the change is not incremental, extended just from the past, but transformational, built from the future. The determinants from the past become *variables* and the variables can assume whole *new* forms which can become wise norms. That's how we survive in ever-changing circumstances from cave to Internet and hopefully, not back again.

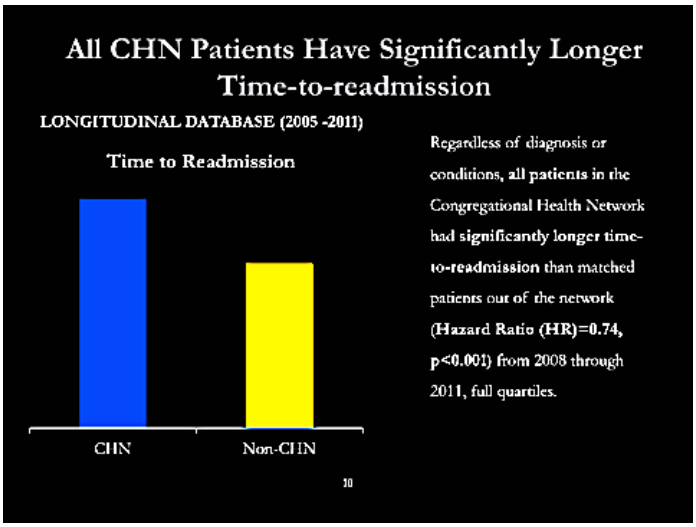
The core of a *patient* medical encounter is an accurate history, which is not just an encyclopedic list of what's wrong. It includes observations about the patient's *health* and their capacity to adapt to changed circumstances. An accurate history enables the physician and person to work together, so it must reflect both types of capacities. Likewise, for Durham or Winston-Salem or Boston to be cities of health, we need a more accurate history of the relationship between our vast privileged medical institutions and the intractable disparities on the streets nearby. To do that, we need to notice our adaptive capacities. We need Spirit, but not in the little box of individual resilience. We need it up on the big box where movements for social change are fueled by hope and courage.

Big

Although we are well beyond the age of Christendom in which churches dominated social life, the scale of the spirit phenomenon in the United States remains large. At Wake Forest Baptist Medical Center we have 1,554 clergy registered to visit our patients. (We know that number

because they have to register to get free parking.) While there are nearly one of every imaginable faith tradition, about half are Baptists, with Methodists a strong second.

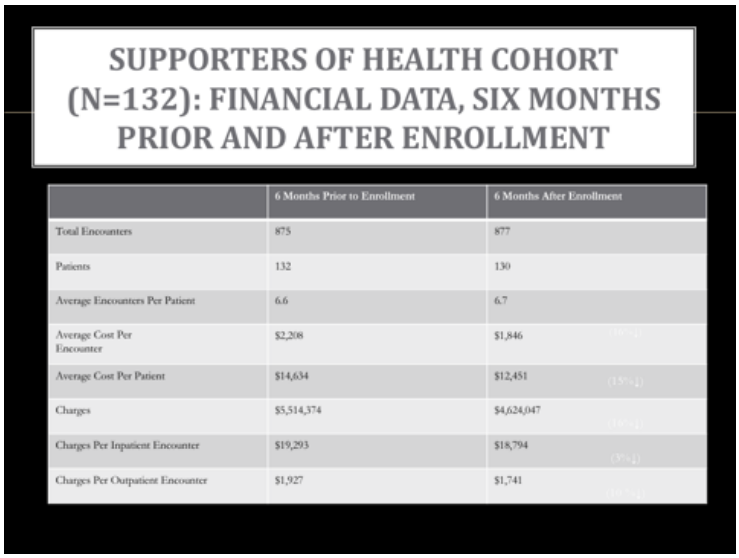
Our hospital has a historic tie to the NC Baptist Convention, which invented us and continues to support us with remarkable generosity. About 1,100 congregations across the state take a special offering on Mother's Day that raises about $700,000 to pay the bills for those caught in between insurance and financial ruin. The Annual Convention of those 4,300 congregations also votes every year to send about $550,000 to our FaithHealth Division to provide counseling and fuel our congregational health ground game. We are moving into a partnership with the 2,000 congregations of the General Baptist State Convention hoping to blend the powerful intellectual stream going back to Dr. John Hatch of UNC School of Public Health. Duke University, of course, has a close relationship with the third faith giant in the state, the United Methodist Annual Conferences with another 2,000 congregations. In North Carolina there are dozens of almost every expression of faith, but these three are the only ones into the thousands; 80% of anyone who attends worship in any month does so in a Baptist or Methodist house. It is simply inadequate science to look away from that scale of social phenomenon. And it is equally inadequate science to confine our curiosity to the role the phenomenon plays at individual lives. The question is the role those assets play in driving population health.



Reading Relevant Data

"Oh my," the researchers among us say, "Where will we find the data for the kind of questions relevant to a strategy involving those kind of assets?" The data from both Memphis and Winston-Salem help pose the question sharply. This data has been widely presented, the most recent will be in new Stakeholder Health collaborative learning document.[2] Even a superficial glance indicate a tantalizing array of hard outcomes that are difficult to explain with a linear logic. A dozen staff related to 600 congregations in Memphis, while a smaller and more varied staff relate to a more complex array of faith and community organizations in Winston-Salem. How could a tiny staff move such large scale data with such high variability of the social actors?

Yet we see cost and outcomes move in ways normal hospital operations people find counter-intuitive (expand access regardless of payer and the cost went down). Utilization patterns in highly trust-sensitive secondary services, such as hospice, rehab and home care change significantly even though nothing changes in the management of the services except greater receptivity to connection. The data and story is compelling enough that dozens of hospitals and delegations visit in hopes of replicating the model. The answer lies in understanding the role of communities of spirit in large and complex human systems.



SUPPORTERS OF HEALTH COHORT (N=132): FINANCIAL DATA, SIX MONTHS PRIOR AND AFTER ENROLLMENT

	6 Months Prior to Enrollment	6 Months After Enrollment
Total Encounters	875	877
Patients	132	130
Average Encounters Per Patient	6.6	6.7
Average Cost Per Encounter	$2,208	$1,846
Average Cost Per Patient	$14,634	$12,451
Charges	$5,514,374	$4,624,047
Charges Per Inpatient Encounter	$19,293	$18,794
Charges Per Outpatient Encounter	$1,927	$1,741

Figure 4 Data from Winston-Salem tracking the Supporters of Health cohort of patients. (Teresa Cutts)

You might say that faith institutions with as old-fashioned names as Baptist, Methodist and Church of God In Christ are like melting glaciers, only of the past. And many *are* in crisis, even as they continue to dwarf any other part of our 21st century social architecture. Just as the number of farms and farmers does not indicate the importance or scale of agriculture, neither does the changing number and structure of spirited institutions signal its irrelevance. Any serious ques-

[2] Contact Dr. Teresa Cutts at cutts02@gmail.com for the bibliography and most recent citations.

tion about population health must take seriously the role of the communities of spirit *now* in the complex human systems of *this* millennium, not the last.

Spirit and communities of spirit are not easy to understand, especially when assigning causality and even more so when crafting hopeful actions. You can't get to their role by just adding up all the processes—this much because of our faith-based diabetic program, this much because of visiting the frail elders, this much because of food assistance and this much because of alcohol counselling.

Evaluating any one of those practices without a complexity lens is as likely to make us dumb as smart. The Memphis and Winston-Salem phenomena can only be explained by understanding the outcomes as dynamic systems qualities achieved by a complex human interaction—on purpose. It is clear that one doesn't hope to "do complexity" like one performs a simple technical skill like running an effective meeting. Or even like negotiating a budget for a complicated array of factors, like ticking the boxes on the County Health Ranking list.

Human systems are human

The difference in human systems is that they are…..*human*.

We humans are *homo sapiens sapiens*: we know we know. Human *systems* are also conscious—and conscious of being conscious. This points to the critical role of meaning making components in complex human systems. And it goes beyond meaning-making. Cochrane notes that "the real power of this capacity is our ability to imagine possibilities in the present that are still to be realized and the capability of making them real. We are made to transform our reality and so it can be transformed. It's the combination of existing realities and new concealed possibilities that allows us to adaptively emerge." This is as obvious as the IPhone (impossible to imagine 10 years ago) and as nuanced as imagining a non-violent end to apartheid. Only a tiny minority of faithful people imagined the latter.

It is possible to miss the practical institutional expression of spirit. Going back to De Tocqueville, it has been noticed that normal American spirit expresses creative freedom to create new social forms, often in order to channel new technologies (as hospitals were once) adapted to new policy environments (such as the Affordable Care Act). The manner of expressing spirit, often with the distinctive expectation of voluntary action is a critical signature of our culture. Faith Forming Entities such as congregations often and constantly create faith-based organizations, such as Salvation Army. And they often create non-profit organizations with no discernable faith on the cover, such as many food banks and social service agencies. These days the energy of the spirit is visible in the courage and imagination to reinvent old structures.

Community spirit

Spiritual capacity can be seen in individuals and organizations, but its power lives in *communities* of spirit and their role in the larger social complex. Communities of spirit are signaling nodes relevant to the consciousness of the complex system. Everything they do—not just what is said in the pulpit or delivered in the food pantry—is part of the signal. Everything matters, which is why the greatest practitioners of the arts of spirit, like King and Gandhi were meticulous about things like spinning cotton and renaming trash collectors "sanitation workers."

Those who tune themselves to the communities of spirit notice things others miss. Dr. John Hatch tells of visiting a congregation as a young public health worker on the Delta where everything turned on the tonal nuances of the grandmother's "uh." *Huh*? (who are you?). *Oh?*, (what the heck are you saying?). *Uh uh*… (go on; tell me more). The tapestry of rituals, meals, what happens at the door, who sits with the single mom with the noisy kid, who shakes the hand of the just-released felon, what the pastor eats, whether the hospital VP is asked to preach or give a political announcement and whether they stay for worship—all express, reinforce and adapt the social mind of the whole system.

Complexity has hopeful practical implications. We can influence complex human systems; we just have to know *that's* what we're doing, and not just running some simplistic intervention or doing clumsy management. We are influencing the complexity anyway, but if done consciously,

far more likely to do so well. The art is generative leadership, leadership that generates healthy complexity. And one can do it intentionally well or accidentally badly.

The body is our teacher. If you decide to move your foot to the left, you can tell it to do so. But your body knows this is complex and without being told, understands to shift the weight of the shoulder and turn your torso slightly. You thought about the toe; the body overheard the signal and adapted as a whole. *Dancers* understand the whole process and thus move all their connected sinew and cells with grace and beauty.

Animating Signals

Every facet of every program sends a signal to everyone in every part of the complex system. We may think of the program as being about this and that—worship, food, counselling or renewal—but each is every one all the time. This has important implications for research and evaluation, as there is no social intervention that can be double-blinded. The act of research is itself a complex signal, especially when the process crosses into and over patterns of race, place, money and privilege, as when the University of Tennessee, or Wake Forest or Duke engages communities they have long ignored.

If one thinks an action is *only* simple (immunization or, for a pastor, a hospital visitation) one probably doesn't understand the other moving parts involved (this is why we provide free parking, which can be a barrier for many pastors). If one stops with a complicated explanation (county health rankings), then one probably doesn't appreciate the complex system that is actually in motion. It is also possible to make a mistake of leaping over the building blocks and move directly to high order complexity. This can be a work of imagination untethered to the particularity of the system that only emerges from the reality on the ground. It is easy to underestimate the power of the poorly done simple action, or poor budgeting that leaves out critical parts of a process. Complexity emerges from, not instead of, other layers of action.

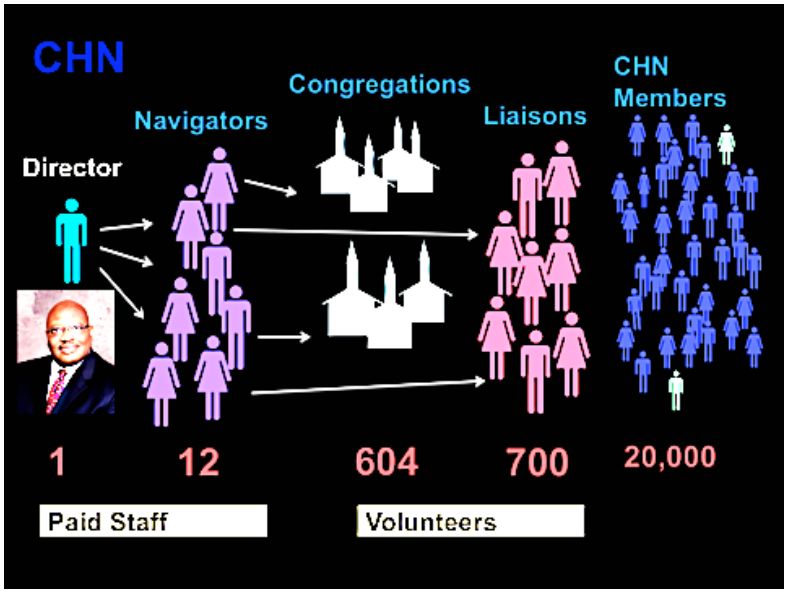


Figure 5 Simplified concept map of the organization of the Congregational Health Network in Memphis. The 20,000 patients are those recorded in the electronic record of Methdoist LeBonher Healthcare. The full membership of the congregations may be 150,000.

Rev. Dr. Bobby Baker, the gifted director of the Congregational Health Network, weighed every program decision as to whether it would build or spend trust. It *all* mattered: where we met, who prayed in what language, who taught with what eye contact, with what agenda, at what time, with what support, and what food. In Memphis, there is lots of what looks like basic education. Thousands of hours of training with two dozen sophisticated curricula is provided for free. It builds trust and relationships far beyond the value of the mere technical information. The didactics end in a circle of no-kidding Memphis-quality prayer. Simplistic identities blew apart, making room for the possibility of complexity: *Dunamis* of the best bio-psycho-social-spirit kind.

In retrospect—and with careful humble analysis of the data—we were able to see that the hard outcomes—readmissions, longevity, cost over time and HCHAP scores—reflected patterns of trust way more than caregiving. That trust created a pattern of crucial qualities visible at the front door in thousands of cases: right door, right time, ready to be treated and not alone. We now hand out coffee cups with those qualities printed so that we all remember for what to hope. But these are relational fruits grown by a complex human system tuned by spirit.

Power

Research is part of the signaling, not apart. Dr. Cutts models an unusual art of building trust and a sense of system efficacy by feeding true data respectfully back into the system to accelerate the emergence of self-consciousness of the living *system's* efficacy. To do that, one has to real-

ize there is such a phenomenon to be respected. She gets things published in the peer literature, too, but her systems role comes first.

Likewise, I and many others are continuing to learn about how and how not to play the role of positional institutional leadership in relationships marked by the stark asymmetry of power. This is a strange new world for leaders trained to manage to objectives they can control. The most important lesson for researchers and executives is to *not* take credit for what the complex system achieves. As in epigenetics, those social signals can turn off the very DNA the system would otherwise express. One should assume that signals *from* power tend to *reinforce* power unless consciously and systematically held accountable to a different end pursued with different art. From above, simple technical interventions can be seen as neutral: deploy community health workers (without hiring from within the neighborhood), teaching technical organizational skills (without pausing to value the adaptive intelligence of the existing ways), choosing program focus on clinical data (without listening to the intelligence of a more grounded prioritization) and program goals keyed to the dominant budget cycle (instead of logical community timing). Missionaries, public health practitioners, community benefit planners and single-issue organizations all easily extend power onto their intended targets of improvement in ways that can cripple the very vitality they hope to support.

The role of power—and powerful roles—in nurturing generative dynamics in complex human systems is the heart of the art. Simple and complicated programmatic actions can be generative or not. The key is the consciousness of the whole signal experienced and embodied by the whole system, not just that *intended* by the messenger. This can be nurtured just as in other relational sensitive roles, such as chaplaincy and counseling, which pay attention to non-verbalized boundaries and asymmetry. The practices adequate for reflective practice in those roles jumps a quantum when applied to more complex dynamics of larger social scale. Just as those disciplines have developed mentored learning processes, so too will this emerge in the arts of complex human systems. In complex systems, the mentoring can be drawn from below, as well as across, the key boundaries and asymmetries. The teachers at one scale of practice (medical and therapeutic) may be learners at another. The community of practice will need to

live across the boundaries now holding the system frozen so that we can learn as we go and only as fast as trust grows among us. This sounds almost too soft to be useful in our mean times. But nothing is more disruptive of fixed boundaries than a community of spirited people committed to larger possibilities than the actualities currently contained within lines of power and practice.

This past June I had an opportunity, while playing tennis, to learn about disconnected human systems when I tore my hamstring entirely off of my pelvis. I had previously understood the tendon as a kind of rope glued to my bone, so was not surprised to find that disconnecting it left me trapped on the couch on pain medications. Simple thinking works to explain most injuries. The surprises emerged in the healing, which turned out to be intricately complex. This began with my favorite body cells, the fibroblasts, which I learned were zooming to the point of injury even as I was laying on the tennis court waiting for the emergency medical technicians and their morphine. My wife gave me a copy of *Job's Body* by Deane Juhan of the Esalen Institute, whose writing made me aware of the nuanced interwoven way the body is connected, made for healing. I began to be a partner in my own healing. I learned that—just as in community—there are no insulated parts of the body, so that the electro-chemical signals go everywhere, not just down little nerve pipes that trigger dumb muscle twitches which pull on ropes to move the bones. The signals go every which way, allowing the whole to respond to the whole. I never did need surgery because a spirited surgeon decided to wait and see what the body—and a highly motivated partner—could do without the knife. I wouldn't say I can dance, but I can move and play tennis.

You will see the resonance with epigenetic theory, especially Dr. Candice Pert's work on the signaling role of peptides that change the structure of the body as we adapt to an astonishing range of signals all the time. How much *more* complex the signals must be in the intimate dyad of a *couple*, multiplied with a *baby*, raised a quantum as a *family* that lives in a *neighborhood* and finds meaning and sustenance in a *tribe* or *nation*? Perhaps communities of spirit are like peptides in the social body? Imagine how differently we would nurture generative leaders at every level in those wondrously complex and generative nodes.

Scale demands complexity

Memphis was one level of complex relationship between the communities of spirit and healthcare structures; North Carolina is a whole quantum beyond as we are consciously trying to work at state level. The large-scale systems overlay each other and the signaling effects are even less contained, creating great variety from one community to the next. Lexington, only 25 miles to the South, is far different from Winston-Salem and on another planet from Wilkes, 45 miles West. Yet all are resonating to the same spirit and community of practice. As with a simplistic grasp of tendons, it is easy to draw lines and organizational schemes and flow charts projecting deliverables on calendars. This is exactly what is not happening. However, it is possible to recognize the beginnings of a complex system quality that will express very locally at intimate scale that is empowered and encouraged by the systems ecology now being tuned to new possibilities. The art is helping the whole complex system find its consciousness of its own capacity. If it can grasp its possibilities, it—we—will know what to do to move toward healing opportunities with the urgency and relevance of the fibroblasts.

This sounds like poetry, which can be a negative epithet in deductive circles. We are learning how to do the rigorous analytics in complex systems. I believe the future of the field of faith-health is to be in deep dialogue with thinkers and researchers in complexity science, such as the brain scientist Dr. Paul Laurienti. Paul, trained at Duke, is now faculty at Wake Forest School of Medicine and a Fellow in the global Leading Causes of Life Initiative led by Dr. Jim Cochrane. Laurienti and his colleague, Dr. Johnathan

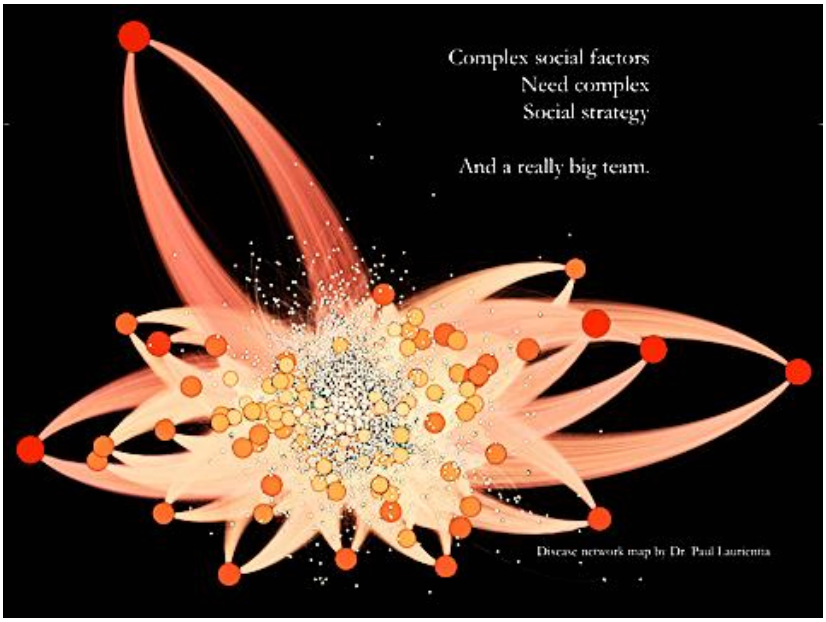


Figure 6 Disease network map by Dr. Paul Laurienti. Each node in this network is a unique disease defined by ICD9. The node color represents the number of patients with the disease.

Burdette, treat the brain itself is as a highly complex system that can only be approached with analytic data models based on complexity science, the opposite of the deductive models which dominate the field. Our chief medical officer pointed me toward Paul one day when he realized that I talked about *community* the way Paul talked about the *brain*. Thus early in our field work in East Winston-Salem, Paul used brain analytic techniques to make visible the complex networks of disease and financial outcomes among our thousands of inpatients reflecting in these crucial zip codes.

I believe that complexity analytics will become normal for analyzing health dynamics in complex human systems, the next generation beyond the county health rankings. The data helps us see the patterns. Now we have to nurture the practices appropriate to changing those patterns. That begins with noticing those patterns of leadership that are already having the effect we want—such as Bobby Baker in Memphis or Jeremy Moseley in Winston-Salem. And the next step would be accurately describing the added value of their generative leadership practices beyond their technical skills. There will always be simple, complicated and complex competencies. We have tended to only notice and value the simple and complicated. We can do better.

Humans and human systems can be wise, but we are not hard-wired to do so. Much of our animal wiring is not wise at all, especially at social scale where the instincts to fear, flee and fight are so easily triggered. We have to learn and, more difficult, unlearn. The first thing to unlearn is that anything, especially anything alive, is determined.

If you walk out the door of the hospital and keep going, in about a half mile you'll pass through neighborhoods filled with disparities. They look frozen in time, but they are not; those patterns can melt because of new social choices. We can change tax rates, where the roads go, what neighborhoods have access to home loans, whether the food is fresh and whether the water flows through clean pipes. We can put money into drones or swing sets, airports or sidewalks.

Spirit makes new possibilities as real as the current actualities.

It is true that the present pattern of health at population scale has been largely determined by the past. But the future is variable, which makes all the difference and poses a profound ques-

tion to those of us in the faith health movement: what is the role of spirit in the future health of complex human populations?

We will be intellectually crippled without a better language and paradigm for spirit.

A few years ago the Medical Research Council of South Africa heard about the work around religious health assets that had grown out of the generative intellectual labor of South African scholars such as Drs. Cochrane, De Gruchy, Germond and Olivier. The MRC wanted to know if spirituality could be an asset in the lives of younger men in their 20's who live in violent communities. Dr. Sandy Lazarus led a team of scholars and community researchers with a complimentary site in Memphis led by Dr. Teresa Cutts. Jim Cochrane understood that we needed a much more rigorous and useful understanding of the thing imprecisely called religion, faith and spirituality. As a result, Jim and Dr. Doug McGaughey are unpacking a model of Spiritual Capacity that makes us capable of choice and thus capable of adaptive novelty and thus moral. This begins to give us language and logic for a way of influencing complex human systems that looks at the things we fear the most without reverting to simplistic interventions. The positive way of influence must be as complex and generative to reverse the self-reinforcing spiral of the problems. This is possible—indeed it is happening. But we need to describe, name and account for the generative vitality with the same rigor currently applied to the problem definition.

Real possibilities

Communities of spirit are held together—cohere—by the way they seek, form and express meaning. That's how *homo sapiens sapiens* embodies at social scale the wisdom by which we survive. Theology and philosophy provide the natural language for testing, probing, discarding, changing and generating words and ways of discourse that help us find the deep meaning solid enough for heavy lifting. Cochrane and McGaughey read the African wisdom about spirit-as-energy through the lens of Immanuel Kant and his view of the human capacity for creative freedom. There is a critical role for scholarship as part of the process whereby complex human systems find our way. Both generative scholars point toward spirit as the fundamental human capacity that reorders power and makes mercy actionable by individuals. Even more important-

ly, this capacity is embodied in the communities of spirit as described in the book of Acts, seen in Memphis data, and in the Durham poverty project, led by Rev Mel Williams. Spirit holds open the future, precisely undetermined.

Death may be complicated or simple. The opposite—life—is always complex; that's why it proves resilient, expresses astonishing, surprising emergent vitality exactly where you'd least expect it. Both science and spirit ask us to be curious about its ever-surprising possibilities, to lend ourselves to the study and practice of those things that give it a chance.

Spirit makes new possibilities as real as the current realities.