Resilience
Health in a New Key

The Standard Key  Health is the absence of illness and pathology: Stephen Hawking, the brilliant theoretical physicist who is crippled with an advanced neurological disease, is unhealthy.

A New Key  Health is the harmonious integration of mind and body within a responsive community: Stephen Hawking is healthy.

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AHF is published three times a year by St. Luke’s Health Initiatives
This is the story of resilience, the remarkable capacity of individuals and communities to bounce back from adversity and even thrive in a world of turmoil and change.

How we can begin to build on our strengths – instead of becoming prisoners of our weaknesses – is the subject of this Arizona Health Futures Issue Brief.

The best thing about the future is that we can’t fully predict it. That means we have something to learn, something to animate and inform the human will, imagination and curiosity.

Something to give us hope that things can be better than they are.

The difficulty is that old habits and ways of thinking are hard to break. We tend to revert to familiar models, patterns and practices because they are known, comfortable and predictable. Like the man with a hammer who thinks everything is a nail, we apply our formidable tool kit of well-honed explanations and strategies to every conceivable problem and then wonder why surprise and mystery still prevail:

 Morales: The child who thrives and prospers despite being tagged with every “risk factor” known to science.

 Morales: The small rural town that reinvents itself in an economic recession, while similar towns around it turn out the lights.

 Morales: Cities, states and nations that bounce back from adversity despite having fewer apparent resources than others.

 Morales: The cancer survivor who is still alive twenty years after her predicted death.

With any luck, we will always encounter surprise and mystery. Our intent here is not to define and solve every problem – the American pragmatic disease if there ever was one – but to tell the rest of the story that today’s received wisdom of diagnosis and treatment leaves out.

This is the story of resilience, the remarkable capacity of individuals and communities to bounce back from adversity and even thrive in a world of turmoil and change. It is our capacity for resilience that provides cause for hope and optimism in the world, and not only our capacity to delineate and solve tough problems, important as this is.

If we listen only to the doom and gloom peddlers of risk – and that includes all of us at one time or another – we could easily become overwhelmed by the sheer volume and intractability of the health and social problems facing us. For example, if life for children in Arizona were as bad as the Casey Foundation’s KidsCount list of risk indicators would suggest, we might wonder why any intelligent person relocating her business or family would consider coming here.

It’s not that the KidsCount Index isn’t important. It is. It’s that what is missing from this and similar risk indexes is equally as important, if not more so. Exactly what is missing – and how we can begin to build on our strengths instead of becoming prisoners of our weaknesses – is the subject of this Arizona Health Futures Issue Brief.
Health in a New Key

This report builds on themes introduced in two previous Arizona Health Futures issue briefs, Building a Public Health Movement in Arizona (Fall 2002) and The Humpty Dumpty Syndrome: Integration and Behavioral Health (Winter 2003).

In both of these studies, we focused on reframing familiar issues of fragmentation, specialization and misplaced incentives within a broader context of systems integration and population health. Our goal was not to produce new information and research on how to address specific health problems, but to provide a heuristic framework for interpreting existing knowledge in order to generate novel insights into practice that might conceivably lead to better health outcomes.

In the same way, this issue brief on resilience redefines health in a new key – a different style and tone applied to the interpretation and performance of the all too familiar tunes of risk assessment and deficit-based intervention.

Risk-based approaches clearly have great power, as demonstrated by the stunning advances in public health and medical science over the past century. The issue is not whether they work, but whether they are sufficient in themselves to address the growing complexity of health and social problems that face us at the individual, community and global levels.

To sketch out how a focus on resilience can inform and energize the goal of better health for all of us, we build on the work of others in such fields as psychology, ecology, community development and integrative systems design. Much of what passes for “rational” health policy discussion these days is confined to ever more narrow exchanges between specialists. What is missing, we believe, are broader interpretive frameworks that synthesize knowledge from different fields and invite a collaborative dialogue in which everyone can participate.

Finally, since a good part of St. Luke’s Health Initiatives’ work is in the area of community building and advocacy, we discuss ways to extend a focus on resilience to actual community-based settings through organizational and community development strategies.

A Well of Opportunity

Arizona State University
Resilience Solutions Network

SLHI’s interest in the subject of resilience continues to grow out of discussions over the past six months with an interdisciplinary group of researchers at ASU who are launching a major “urban observatory” effort to study the factors that promote resilience at both the individual and community level, and then apply those results through a network of community-based “resilience centers.”

Led by professors Alex Zautra (psychology) and John Hall (public affairs), the team will model its approach after the seminal Framingham longitudinal study on cardiovascular disease. Unlike Framingham, however, which focused on risk factors within a fairly homogenous population over time, the ASU group will focus primarily on resilience factors within a diverse sample of approximately 5,000 persons in the Phoenix metro region. SLHI and ASU have both committed funding to launch the development of the project, which promises to be a well of opportunity from which many can drink.

In preparing this report, SLHI has also profited from discussions with other researchers, such as Irvin Sandler at ASU’s Program for Prevention Research, and people in public health and community-based services.

Acknowledgement and sources are included on page 27.
Same Old Song or the Beat of a Different Drum?

The subject of resilience is hardly a novel theme. The world’s great philosophies and literature are replete with explanations and stories of struggle, adaptation and survival, and the lessons to be learned from them. More recently, researchers and scientists in such fields as biology, psychology, sociology, immunology and environmental science have investigated the properties of resilience and their application to various problems.

There’s also pop culture, which is saturated with the images of smart, tough and resilient survivors from the mean streets who face an edgy future with optimism and “attitude” – usually as an inducement to sell us something.

The question then arises, what exactly can we say about resilience that is new or useful? Aren’t we singing the same old song by talking about “health in a new key?”

Yes and no.

Yes, because we need to “repackage” resilience in a more compelling and powerful way if we are to regain any sort of balance with the dominant American cultural view that focuses exclusively on needs, deficiencies and problems. A focus on resilience, which starts with the much different perspective of capacities and assets, is but a tiny voice in the wilderness compared to the commanding roar of the deficit model.

No, because the limitations of a risk-based approach to health, combined with the convergence of scientific inquiry across disciplinary fault lines, present a window of opportunity to shift practice to a focus on prevention and wellness – a sustainable view of individual and community health – that is grounded in emerging science and its application to social policy.

This is a new key not only in the sense of approaching health through different metaphors, style and tone, but also in the sense of unlocking the limitations of risk-based health to more successfully respond to the realities of an interdependent world and finite resources.

A Don Quixote quest? We don’t think so.

A Note on Definitions and Scope

We do not confine ourselves to the health care field alone in this report. Our central thesis is that resilience and health are social concepts at the core; and to understand their relationship we need to mine a considerably broader area than just medical care, characteristics of individuals and what passes for the health care “system” in America.

We take ‘health’ to be more than the absence of pathology. In the words of ASU’s John Hall, health is best viewed as “the resourceful integration of mind and body within a responsive community.”¹ This is a normative definition that is grounded in sound science. We define standards and propagate characteristics of healthy individuals and healthy communities, demonstrate how they are integrated, and present arguments for policy and practice that promote them.
The Risk of Risk: The Culture of Needs and Deficiencies

So what’s the big deal about resilience? What’s wrong with the dominant model of diagnosis and treatment, risk assessment and intervention to improve health? Why do we need a “new key” when the old key of establishing needs and correcting deficiencies has led to longer lives, lower smoking rates, healthier babies, the elimination and control of infectious diseases and safer communities?

The short answer is that there is nothing wrong with employing a risk-based approach to address health issues. It clearly works to treat symptoms and some causes. The longer answer, which will become more clear as we proceed, is that a risk-based approach is only half the story, and actually can leave us more vulnerable rather than less when applied alone.

Risk 101

At the risk of over simplification (no pun intended), we might characterize the risk model as follows:

1. We establish a causal/correlative relationship between the presence of a factor or group of factors and a specific undesirable outcome: smoking with lung cancer, high cholesterol with heart disease, community poverty with increased levels of violence, etc.

2. We identify individuals/communities/populations that exhibit these factor(s) as being at risk of having the associated outcome. Often the term vulnerable is used interchangeably with “at risk.” This establishes a continuum of risk/vulnerability—children who don’t read at grade level have a high risk of dropping out of school, children who do read at grade level have a comparatively lower risk, etc.

3. We take action to eliminate or reduce the identified risk factors in the identified groups, thereby reducing the presence of the associated undesirable outcome: lowering blood pressure leads to fewer strokes, reducing the level of air pollutants reduces the severity of asthma, etc.

We don’t have to take detours along the paths of the etiology of risk factors (behavioral, genetic, environmental, social, etc.) or the spurious conflation of correlation and causation to see how the risk model works: We identify a problem, establish the underlying causes, and match metaphors and essentially see if anything interesting and useful develops.

In some respects, this issue brief on resilience has more to do with SLH’s community grants program, which focuses on organizational and community development, than it does with our work in health policy analysis and public education. It ultimately focuses on increasing the healthy connections between individuals, organizations and communities that are necessary to sustain communities through periods of stress and help them to adapt and thrive in times of change and dislocation.

In the end, that’s what healthy communities do.
intervene to eliminate or reduce those causes in particular ways with particular populations, and see if the problem is solved or ameliorated. Most of what we do in public health is risk assessment and intervention, and in many areas we have an impressive track record to show for it.

**A Culture of Need**

It’s not the risk-based model itself that’s flawed, but rather its often one-dimensional application. Over an extended period of time, it can foster a culture of need, deficiency and dependence. This can mask or “crowd out” a culture of strength and resilience.

### Changing Definitions of Risk

How might a view of our lives based on level of risk leave us more vulnerable rather than less? A recent presentation on “Changing Diagnostic Thresholds and the Definition of Disease” by Robert Kaplan, Professor of Family Medicine at the University of California-San Diego, provides an illustration:

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- **Hypertension** – lowering the BP threshold added almost 14 million people with hypertension who required treatment, a 35 percent increase from the old threshold. Recent changes in lowering the pre-hypertension BP levels to ≥120/80 will include 90 percent of the total population over 50!

- **Hypercholesterolemia** – lowering the cholesterol threshold from 240 to 200 added almost 43 million people to the at-risk category, an 86 percent increase.

- **Overweight** – lowering the body mass index at-risk level from 27 to 25 added almost 30 million to the “problem” side of the equation, a 42 percent increase. Under the new standard, San Francisco Giant slugger Barry Bonds (6’, 2”, 235 lbs, BM = 30.02) is obese!

Makers of drugs for hypertension, high cholesterol and overweight people are overjoyed. Millions more of us are at risk. We will need products and services. Business is good.

As ASU’s Alex Zautra puts it, “If we rely on a risk factor mentality, it would be a rare person indeed who is healthy. At age 60, we are all virtually guaranteed to be ill!”

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We all have needs and deficiencies. The risk-based model starts here and identifies those individuals and communities that have greater needs and deficiencies than others: poor health, obesity, violent neighborhoods, the homeless, drugs and crime – the list of deficits is endless.

Once identified, these vulnerable populations are targeted for deficiency-based policies, programs and services. Foundations, research organizations, public and private health and human service providers and countless others march into communities to educate, advocate, collaborate and provide services to reduce these deficits.

Over time, these communities become service environments, and their citizens become “clients” or “consumers.”

Over time, they begin to think of themselves as persons with “special needs.”

Over time, they become dependent on outsiders and institutions.

Over time, they think of themselves as being entitled to services.

We know all about this at SLHI. We talk about “vulnerable populations” all the time. We march into at-risk communities with the best of them.

The Therapeutic Vision

Northwestern University’s John McKnight calls this the “therapeutic vision,” where “the individual is primarily a client and consumer. Well-being comes from professionals and their services. There are professionals to meet every need, they charge fees, and people have a ‘right to treatment.’”

The therapeutic vision, in turn, informs the therapeutic society where, in a variation of Parkinson’s Law, therapy and service intervention expands to fill the space and time allotted to it. Services beget more services, and success is measured by the increase in the number of services provided. Entire therapeutic industries emerge, along with armies of brokers, consultants, regulators and researchers to grease the wheels of community progress. A culture of identification, intervention and evaluation emerges; and it becomes the whole truth of how individual and community problems are approached.

But if the risk-based approach – what’s missing, what’s negative, what’s in deficit – is not the whole truth, then what is? For the answer, we need to start not with what’s missing, but with what’s already there.

That brings us to resilience.

It’s not the risk-based model that is flawed, but rather its often one-dimensional application.

For resilience, we need to start not with what’s missing, but with what’s already there.
Resilience in a New Key

The Standard Key

Resilience is a familiar concept for most of us. Its standard dictionary definition is the ability to recover quickly from illness, change or misfortune – a kind of buoyancy. It is also the property of a material that enables it to resume its original shape or position after being bent or stretched – a kind of elasticity.

The ASU Resilience Group starts out with this working definition:

Resilience is the capacity to recover fully from acute stressors, to carry on in the face of chronic difficulties. To regain one’s balance quickly after losing it. The concept is one that has currency across many levels of inquiry: from preservation of homeostatic functioning in biological responses to preservation of quality in community life.

John Reich, a social psychologist on the ASU team, adds this dimension to the standard key:

At the heart of human adaptation is resilience, the ability to create a positive world for ourselves, often in the face of stressful life experiences, and the ability to resist being overtaken by negative experiences when they seem to be overwhelming.

One example of how we normally think of resilience is the recent blockbuster movie, Seabiscuit, promoted as “a grand story of resilience” and proclaiming, “You don’t throw a whole life away just ‘cause it’s banged up a little!” The story is about people recovering from personal misfortune, a nation coping with the Great Depression and a scrawny, long shot but ultimately resilient horse.

A New Key

Just as we define ‘health’ in a new key, we also want to build on the standard key of resilience by establishing a normative definition that allows us to begin to tease out its properties and see how they might be extended in individual and community practice.

For a start – and this approach is all about beginnings, not endings – we turn to the fields of systems theory and ecology and come up with the following normative definition.

Resilience, for social-ecological systems, is related to:

1. The magnitude of shock a system can absorb and remain within a given state.
2. The degree to which the system is capable of self-organization.
3. The degree to which the system can build capacity for learning and adaptation.

These dimensions of resilience can be applied in multiple settings, as we shall see. They certainly don’t exhaust the dimensions of resilience – for example, we will briefly mention dimensions of resilience in individuals that aren’t entirely captured under “systems” models – but they provide us with some insights into community development and capacity building in order to promote better health.

A Word of Caution

It would be horrifyingly ironic if we were to apply this concept of resilience in communities and move linearly from definition to assessment to intervention to evaluation, just like a risk-based model. You know, march into communities and “teach” them how to be resilient.

The question is, what’s the alternative? Keep that in mind.
What are some of the characteristics of resilient communities and individuals? We start with general components in the literature of biology and systems theory and gradually add insights from such fields as psychology and sociology. This is hardly an exhaustive account, but it's enough to connect us to where we want to end up, which is recommending strategies to promote more resilient, and hence more healthy, communities.

Social-Ecological Systems

There are at least three central components of resilient social-ecological communities:

**DIVERSITY** – diversity of species, functions, response, human opportunity and economic options, all of which maintain and encourage adaptation and learning.

**KEY POINT:** “Resilience derives from things that can be restored only slowly, such as reservoirs of soil nutrients, heterogeneity of ecosystems on a landscape, or variety of genotypes and species.” We can’t quickly “manage” change. Promoting resilience by increasing diversity is a long-term, not a short-term, proposition. This remains a fundamental challenge in our postmodern culture of the “quick fix.”

**REDUNDANCY** – redundancy in the sense of overlapping species, functions and institutions that diffuse disturbances and allow them to enter the system at a smaller scale instead of accumulating at a larger scale and precipitating system collapse.

**KEY POINT:** Centralization and integration of functions and institutions do not necessarily increase resilience and may even decrease the ability of communities to respond to stress and adapt over time. How many times have we found ourselves saying, “there are too many of these small nonprofits out in the community, each doing essentially the same thing. This is inefficient. We need to encourage them to consolidate or go out of business.” Again, what is efficient in the short term is not necessarily efficient in the long term. Resilient communities self-organize and adapt over time.

**FEEDBACK LOOPS** – robust and stable feedback loops that underlie early warning systems and allow for quick response and adaptation to system stressors.

**KEY POINT:** This is the critical component of connectivity, both in a biological and social sense. There is both a formal sense of connectivity – structured feedback loops that allow us to monitor and adapt to changes in the natural environment, social disasters, etc. – and an informal sense of connectivity in our everyday world of social relationships that often arises spontaneously and defines our communities and culture. These feedback loops are both positive and negative, and a resilient system needs both. To the degree that we attempt to control feedback loops – connectivity – through rigid institutions, roles, regulations and relationships, we run the risk of depleting the “natural” reconstitutive capacity of communities to learn and adapt on their own.
In individuals the protective factors of resilience are:

- Biological Factors
- Attachment
- Control

**Individuals**

There is a growing literature on the characteristics of resilience in individuals, sometimes referred to as protective factors. With apologies to fastidious social scientists everywhere, we arbitrarily lump these into three general categories, all the more convenient to link them with the characteristics of resilience in social and ecological communities.

**BIOLOGICAL FACTORS** – the biological basis of temperament, emotions, intelligence, creativity, resistance to disease; genetic and physical characteristics, etc.

**KEY POINT:** There is significant variability across individuals and populations when it comes to protective and risk factors. How much of this is due to biology, how much to the environment and how much to social and cultural factors are what we don’t fully understand. Children in the same family can exhibit contrasting temperaments and adapt differently to stress; intelligence and creativity manifest themselves in almost infinite ways; some populations are more susceptible to high-blood pressure or diabetes, and so on. The lesson here is that we account for – and even celebrate – variability in individuals. Diversity in the gene pool, like diversity in social systems, is key to successful adaptation.

**ATTACHMENT** – the capacity for bonding, for forming significant relationships with others; the capacity for empathy, compassion, caring and joy.

**KEY POINT:** Nothing is more important for the development of resilience in individuals than the capacity for attachment, which must be nurtured in children at a very young age. One truth comes back again and again in both the research and our common stories of struggle, strife and triumph: Every child needs at least one adult who is irrationally committed to his or her future. Policies and practices that promote detachment – multiple and frequent placements of children in foster homes at an early age, for example – do not bode well for resilience later on. Attachment is the emotional analogue of connectivity in social systems. The Self is social – it has no definition or meaning in isolation from others.

**CONTROL** – the capacity to manipulate one’s environment (an alternative definition of intelligence). A source of social competence, self esteem, personal autonomy and a sense of purpose.

**KEY POINT:** The genesis of control lies in personal mastery and competence. What is violence and rage but the absence of control, of mastery and competence? Mastery and competence, in turn, derive from social connectedness, which provides the stage on which we act as social beings. We can actually arrange social connections to foster personal mastery and competence. We can also arrange social connections to discourage personal competence or, more insidiously, to redefine personal competence and mastery in the context of controlling social ideologies, whose interests may not necessarily be in tune with those of specific individuals and communities. This brings us to the politics of control. We’ll come to this in our discussion of community engagement and development to foster resilience.

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**It’s All in Your Head**

Want to be more resilient? You can buy a book, listen to an audio tape, measure yourself on a resilience scale, get advice from a certified resilience counselor, get pumped up by listening to a motivational speaker.

There’s money to be made in resilience, no doubt about it. It’s the risk-based model dressed up in sheep’s clothing: You have a resilience deficit, and we can help you.

In our opinion, this popular approach psychologizes resilience and reduces it to a set of individual characteristics alone instead of connecting it to social, cultural, economic and environmental antecedents. It reinforces the notion that mental health is “all in your head,” and turns attention away from examining the social relationships that constitute the notion of self in the first place.

There’s something to be said for investigating how individuals can become more resilient to stress. We just happen to think the place to start is examining how the head is hard wired to the rest of the world in the first place.
The Resilience Zone

Four Quandaries

The place where we seek to understand resilience more fully in social systems is the zone – the interstice – of the overlapping structures, functions and processes of society, the environment and economics. It’s in the resilience zone where macro- and micro-forces merge in “bundles” of stress that affect local systems. The lesson of the zone is that you can’t consider stress in any one of the sectors alone, but only in their interactions. How communities deal with these stress bundles in a system of interlocking factors determines whether they get resilience right, or whether they get it wrong.

The resilience zone presents at least four principal quandaries:

1. Positive and Negative Feedback Loops

In simple terms, positive feedback loops amplify changes in input and tend to push the system toward more pronounced change. Negative feedback loops counteract changes in input and tend to maintain the system in its current state.

In Arizona, population growth could be considered a positive feedback loop: increased population size generates more real estate development, more jobs, etc., which in turn generates even greater population increase. A lot of people consider this to be a good thing.

However, without the presence of negative feedback loops – lack of water, land and other natural resources; competition for jobs from other states, etc. – unimpeded positive feedback tends to cause any system to eventually overload and crash.

In order to ensure that the Phoenix metro region doesn’t turn into another sprawling, amorphous metropolis (often caricatured as the “Los Angeles syndrome”), pressure increases to plan for growth that can be sustained over time, primarily through the development of negative feedback loops in the social and economic sectors such as land use restrictions, environmental regulations, tax policy, etc.

Negative feedback loops are necessary over the long term to develop resilience in communities, and in individuals, too, for that matter. This is counter-intuitive to the tendency to look only for ways to promote more positive feedback loops in our communities and personal lives: more growth, more consumption, more income, more choices, more opportunities to “feel good.”

Put another way, communities that acknowledge healthy levels of conflict and stress that give rise to significant negative feedback loops are more resilient than communities with lower levels of conflict and stress. In a real sense, communities become resilient not by following the path of least resistance but by following the path of most resistance.

2. Stability and Adaptability

It’s commonplace to think of stability as a desired state in community and personal life. We want stable jobs, stable neighborhoods, stable relationships, a web of stable values on which to order and inform our public and private behavior. In this sense, one definition of resilience is the ability to “snap back” to our original, stable form after some period of change and stress when we are “bent out of shape.”

But life is never so neat and tidy. How often have we heard someone say, “Why do we have to change? What’s wrong with the old ways, with keeping things as they are?” As the humorist Ogden Nash once said, “Progress might have been all right once, but it’s gone on far too long.”

We may prefer stasis, but observation and history suggest that change and adaptation rule the day. We seldom change because we want to; we change because we have to.

In the interdependent zone of social, environmental and economic forces buffeting communities on a daily basis, the true measure of resilience is our ability to adapt to stress.
Resilience and Culture

The characteristics of attachment and control in individuals, as well as connectivity in social systems and communities, are manifested in the resilience of cultures, viewed in a general way as “the accumulation of adaptive survival strategies, the wisdom of a group's ancestors, that allow that group to survive within a given environment.”

What's fascinating to note, especially in Arizona, is that enculturation among Latinos – adaptation to their native culture – is thought to serve as a protective factor in their acculturation, or adaptation to the dominant American culture. There is growing evidence to suggest that Latino youth who are strongly attached to their native culture are more resilient to the stressors in American culture longer and have weaker ties to their native culture.

Investigators have noticed for some time how more recent immigrant Latino women have fewer prenatal and low birth weight complications compared to their American-born counterparts. The longer they are in this country – the more acculturated they become – the more their birth outcomes approach the American norm.

It's much the same thing with rates for co-occurring alcohol, drug and psychiatric disease: 12.3 percent for U.S. born, compared to 3.5 percent for immigrants.

A resilience-based approach to immigrant health, educational and social policy would turn current policy on its head. Instead of promoting rapid acculturation and all the attendant problems that go with it, we could promote strong biculturalism in our schools and communities, which might help to ameliorate negative fallout down the road (e.g., high drop-out rates).

Of course, this takes a long view toward social policy. In the short term it's easier to pass a law mandating English-only instruction and think we're making progress.

and change and emerge stronger than before. It's not that we necessarily recover from the stress – the bad economy, a serious mental illness, entrenched community violence – so much as that our capacity for self-organization and learning enables us to adapt to the conditions that give rise to the bundles of stress and, in so doing, to redefine, control and transcend those conditions as changed communities and individuals.

If this is true, we ought to promote policies and strategies that increase community adaptability and flexibility, and not necessarily stability.

Certainly we need enough stability in our communities and personal lives to ensure a sense of common identity and purpose over time, but not so much stability that we are paralyzed by comforting ideologies and social arrangements, and unable to successfully adapt to changed circumstances. Like most things, this isn't an either-or distinction. It's a matter of degree.

3. Diversity and Pluralism

Another lesson from the resilience zone is that we shouldn't make the mistake of conflating diversity and pluralism.

As we outlined in our definition of resilience in social-environmental systems, resilient systems consist of diverse functions, structures, roles, relationships, responses and activities. This is not the same thing as talking about diversity in the sense of pluralism, which is a state of society in which members of diverse ethnic, racial, religious and social groups are able to maintain their particular interests and cultures within the confines of a larger society.

Diversity is a characteristic of resilient systems because it is a functional conjoining of separate parts of the whole that creates a synergy of energy, strength and elasticity that is greater than any of the parts themselves. In resilient systems, the whole really is greater than the sum of its parts.

In a pluralistic society, however, the whole is not necessarily greater than the sum of its parts. One of the challenges of fostering resilience in a pluralistic society like the United States is finding what is common among the separate and distinct groups that often define their own identity and purpose by how they are different or separate from others, not by how they are alike.

We can talk about building a sense of community all we like, but the fact of the matter is that America has consistently pursued policies that promote separatism and individual freedom, not communitarianism and social responsibility. The issue is whether a society in which diversity is framed in terms of pluralism and difference can promote resilience in communities in the sense of conjoining differences for the common good.

Can we have resilient communities in a rigorously pluralistic society? Is it enough to rely primarily on individual differences and choices manifested through open markets to create what is euphemistically referred to as the ‘common good’?

We don't have to know the answer to know that we have to constantly ask the question.

4. Remoteness and Connectivity

An issue that seldom gets mentioned in discussions of how to promote resilience in communities is the concept of remoteness. There are multiple ways of framing this, but we note the following dimensions:...
Spatial remoteness, where we are physically remote from the communities and conditions in which we have a stake. Example: CEOs of companies headquartered elsewhere.

Consequential remoteness, where the consequences of decisions we make impact others but not necessarily us. Example: Legislators decide to cut funding for community mental health services in low-income communities.

Temporal remoteness, where the decisions we make play out in the future and impact others not present. Example: Adding a prescription drug benefit for current Medicare beneficiaries, the bill for which will come due in future generations.

Virtual remoteness, where we establish close connections to a virtual, on-line world of connections and services that supersede social connectivity and reciprocity in physical settings. Example: The teenager who feels more connected to her on-line community of friends than she does to her friends at school; the person who prefers to purchase goods and services on-line instead of socializing in the local marketplace.

Remoteness reduces the resilience of communities by masking shared responsibility and conditions of cause and effect. We would suggest that communities high on the remoteness index – high number of companies with headquarters outside the area, a large number of entitlement programs set by outside regulators, high numbers of exclusionary age-based communities that have trouble seeing the connection between paying taxes and the education of children not their own – will be less successful in adapting to the economic, social and environmental stressors of a rapidly changing world than those communities with less remoteness.

It’s all the rage today to sing the siren song of knowledge-based communities and workers, borderless companies and regions, and the benefits of freely flowing information and scientific enterprise. Nobody talks much about how such an environment can breed remoteness. Meanwhile, the vast majority of us live in space- and time-bound communities, and social connectivity matters. What’s alarming is how many of us prefer to watch and talk about change taking place instead of participating in it ourselves. It doesn’t bode well for resilient communities.

**Technology and Resilience**

Does technology make us more resilient? Certainly a case can be made for better living through chemistry and engineering: drugs to defeat disease and increase functioning, diagnostics to detect small problems before they become big problems, all manner of devices to extend our capacity for learning and manipulation of our world.

But there’s a cost. Over time, a reliance on technology tends to mask negative feedback from the environment and reinforces the view that humanity is independent of nature and can even control it. Short-term yields in homogenized environments – genetically modified crops or seniors with artificial hips, for example – may in fact make us less resilient over the long term in the face of environmental change, ironically induced by our attempt to control it.

This is a perennial theme in science fiction, but it’s also a major thread in the story of millions of people who are attracted to holistic and natural approaches to maintaining health and well-being, and to enhancing human and community resilience through sustainable development.

Should we put our faith in sound science? Absolutely. Should we put our faith in technological progress? Not if it distorts our relationship with the natural world.

As Aristotle counseled over 2,300 years ago – balance, harmony and moderation in all things.
What is Community?

Without getting into the taxonomy of communities and their various definitions, we borrow a definition based on sampling the opinion of selected public health groups who answered the question, “What does the word ‘community’ mean to you?” This common definition emerged:

*Community is a group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings.*

This definition has five key elements:

- **A SENSE OF PLACE** — Community is a real geographical location that can be described and located.
- **SHARING COMMON INTERESTS AND PERSPECTIVES** — These might include values, norms, interests, opinions, skin color, stories, beliefs – things that create a sense of familiarity, togetherness, identity and recognition.
- **JOINT ACTION** – a source of cohesion and identity, or the idea that joint action naturally leads to community. This runs the gamut from socializing and volunteering to being politically active, helping neighbors, keeping an eye out for others, and generally being actively engaged with other people.
- **SOCIAL TIES** – connectedness, or the foundation for community. These include the obvious, such as family, friends, co-workers and support groups, but also people around them, people they trust, people who care about each other.
- **DIVERSITY** – the social complexity within a specific place. More than the common perception of ethnicity and culture, diversity is the range of interpersonal interactions and roles, including the superficial and complex, groups that provide specialized services, as well as groups that have overlapping relationships with other communities.

These elements of how people define community are all norms of conduct, values and behavior that describe what community *ought* to be. They sometimes are bundled together in the term *social capital* – the “glue” that holds a community together. They describe a *sense* of community, the way community is felt and experienced in daily life – or not experienced, as the case may be.

We use the term ‘community’ in many ways — the global community, the Internet community, the scientific community among countless others – but not all of them contain a rich reservoir of social capital, the ties that truly bind.

As a descriptive term, ‘community’ is used so frequently that it risks becoming devalued. But as an *experience*, community remains at the heart of what most people across the world still take to be the meaning and purpose of human existence.
Building a Melody: Enhancing the Resilient Community

How does resilience play out in actual communities, and what can we do to promote it? This isn’t rocket science. Studies of resilient communities all over the world yield these common sense characteristics:

1. **Boundaries.** Resilient communities have a shared sense of what their community is, and more importantly, what it is not. This requires a clear set of boundaries that demarcate the community from other communities and empower members with a true sense of place, a common vision and identity. Successful “branding” in the marketing world is based on this principle. So are resilient communities.

2. **Time.** This is so obvious, it’s invisible. Communities at risk are always on the verge of “running out of time.” Deficits and nasty trends are puffing at the door; a sense of urgency prevails. Resilient communities, on the other hand, know that the wolf is always at the door. If he weren’t, they wouldn’t be forced to prepare the house; they wouldn’t be resilient. These communities take all the time they need — and it takes a lot of time — to develop the characteristics of resilience listed here. Time replenishes itself in resilient communities, because they have learned to adapt and change without losing their core identity. This is the “Zen” of resilience.

3. **Committed leadership.** Not just the usual suspects – powerful CEOs and community leaders, people with “clout” – but also an inclusive group of ordinary people in ordinary places with extraordinary energy and capacity for learning and inspiring others. For the long haul, communities that self-organize to adapt to changing conditions require informal as well as formal networks of committed leaders. If you think you aren’t a leader because your name isn’t in the paper, think again.

4. **A high degree of civic engagement and associational life.** Simply holding a “visioning” conference and flying in outside talent won’t cut it. Residents of resilient communities are engaged with each other in a rich web of formal community organizations and informal associations. Nurtured over time, this develops trusting and caring relationships, a sense of social cohesion. Without social cohesion and connectedness, successful adaptation is impossible in both individuals and communities.

5. **Diversity.** Not in the sense of pluralism, but diversity in economic base and environmental resources; diversity of skills, roles and relationships; diversity of...
perspectives and beliefs. Social cohesion through diversity is not easy to achieve, but in the long run harmonized diversity creates a more resilient web of community than social cohesion through monocultures.

6. **A multi-functional approach to development.** Attractive as it is in the short term, a laser-beam focus on just one dimension of development, such as economic growth, won’t build resilient communities over the long term. Communities that focus planning and development in the resilience zone – the place where social, environmental and economic issues overlap – have a better shot at building sustainable, vital communities over time.

7. **Asset-based planning.** Resilient communities start the planning process with a focus on their assets and strengths, not their deficits and limitations. It is impossible to mobilize and energize communities without asset-based plans that set priorities and goals; merge social, environmental, political and economic resources; and build local capacity. But here’s the catch: Elites and experts don’t create a vision and strategic plan for the community and then “present” it to them for their approval. The plan grows organically out of an inclusive community process. The entire community creates and “owns” it. Experience confirms that this is a messy process, but there’s no short cut. In a real sense, the asset-based planning process is the plan itself.

8. **A culture of active learning.** Human communities are complex social systems. Complex social systems adapt and change through the spontaneous interplay of diversity and disturbance, which is part of the self-organizing process. Resilient communities learn to harness this process through monitoring feedback loops (social, environmental, economic) and adaptive management strategies that test knowledge through a self-organized process of trial and error. “The adaptive management approach treats policies as hypotheses and management as experiments from which managers can learn, accepting uncertainty and expecting surprises.”

Resilient communities encourage a culture of learning in which people feel comfortable exploring new ideas in trial and error settings. They are willing to take risks. Easy to say, but hard to do, because much of what passes for management and education these days is primarily about control, not about active learning.

9. **Access to skills and knowledge.** Resilient communities tap into the diversity of skills and knowledge that all members of the community possess, and not just the “marketable” skills of experts and technicians. Community asset-mapping reveals skills that others in the community are often unaware of; attention to what people can bring to the table, as distinct from what they take away, is a tremendously powerful factor in motivation and involvement across traditional community economic, social and cultural fault lines. At the larger “system” level, resilient communities also tap into accurate information and knowledge about system components such as health, welfare, education, employment, the environment, transportation and arts and culture. Investing resources in the development and maintenance and connection of this knowledge is critical.

**Communities that focus planning and development in the resilience zone have a better shot at building sustainable, vital communities over time.**
“What gets measured, gets done.”

How often have you heard this? What we measure is a window on what we value as a society. If all we measure are economic growth statistics as indicators of progress and prosperity, and if we don’t count the marvelous assets of our extensive natural and social capital, we end up with a distorted view of what we say we value:

- The Exxon Valdez contributed more to the annual Gross Domestic Product (GDP) of Alaska by spilling its oil than had the ship delivered it safely to port.
- Persons with perilous illnesses are far more valuable to the medical industry than persons without expensive illnesses. Were we really to lose weight, exercise and reduce stress, thousands of people would be out of work.
- Measured on GDP alone, a community built around a major prison complex is “healthy.”

Perhaps the GDP should be more accurately labeled “Grossly Distorted Progress” to the extent that it lumps all economic activity in one indicator and doesn’t distinguish between what we count as progress, and what we don’t. Growth for what? That’s the issue.

Similarly, if all we measure are deficits and levels of risk, social policy becomes myopically focused on filling buckets of problems with buckets of services – the negative approach – and misses a huge reservoir of individual and community strengths that can be tapped for personal and collective well-being – the positive approach.

Consider this surprising fact: Millions of us have a life other than as a client or consumer. What a concept for community health!

**What to Count?**

Fortunately, nations, states and communities are turning their attention to tracking indicators of economic, social and environmental sustainability and well-being.19 These are not meant to replace purely economic measures like the GDP or the various indexes tracking health and social problems like obesity, cancer and domestic violence, but to augment and balance them with a more complete picture of what we value as individuals and communities, and to shine a light on the resources and social policies we can bring to bear to extend those values.

But what to count? Some of the characteristics of healthy, resilient communities might be relatively straightforward: number of churches and civic associations; number of people running for local public office; number of volunteer hours, number of sports and social activities, number of resources for older adults, measures of breadth and depth of economic sectors; measures of psychological well-being on various tests, etc.

But not all the characteristics of resilient individuals and communities lend themselves to counting and measurement. How, for example, would we measure “social cohesion?” How do we measure a sense of joy, leadership, a sense of risk, active learning?
Is Time

*More Than Money?*

Just because we *can* count or measure something, should we?

Take the example of *time*. Since everything these days is increasingly framed in terms of costs and the economy (the only language policy makers seem to understand), the rush is on to monetize time: what are your volunteer hours worth if they had to pay you to help out at the school; what is the dollar value of the time you take to prepare meals at home, the yard work you do on Saturday morning, the clothes you wash, the time you spend sitting in a traffic jam on the way home from work?

On the one hand, if we assign a monetary value to volunteer hours, as many nonprofits do, we can point to the economic benefit of encouraging social policies that promote the growth and health of the nonprofit sector. Or, if we assign monetary value to all manner of unpaid household tasks, we would no doubt produce fiscal proof that the household is a huge sector in the economy, and social policy should make it easier for people to “work” there (flex time, generous leave policies, tax credits for stay-at-home parents, etc.).

This is the *instrumental value* argument: Monetizing time is a means to some end: strengthening the nonprofit sector, encouraging more parents to stay home with their young children, etc. If the only way to get government’s or business’s attention is to speak the language of economics, “counting time” obviously makes a lot of sense.

On the other hand, economics is not the only dimension of resilient individuals and communities, and where attention is solely focused on instrumental exchange relationships to the exclusion of critical social and environmental factors, resilience is actually diminished – over time.

Much of what resilient people say is important to them – a sense of purpose, of joy, of social relatedness – is *intrinsic*, an end in itself. Money has little to do with it. Volunteering, playing softball, listening to music, hanging out with friends – these are ends in themselves. They are the goods of life that contribute to resilience in the face of all of the vicissitudes bound to show up in daily life.

So it is with healthy communities. They can be broken down into indexes and instrumental relationships, but they are never *experienced* that way.
Constructing Resilience Indexes:

One of the goals of the ASU Resilience Project is to develop indices at both the individual and community level of increased functioning and resilience in the face of stressors like acute and chronic diseases, disabilities, environmental and social disturbances, economic difficulties and so on. What these indicators ought to be, and the degree to which they can predict strength and adaptability, is just what the researchers intend to investigate.

Based on the experience of researchers and communities that are in the process of developing similar indices, the following suggestions apply for anyone interested in this process:

1. **Develop multiple indexes** – don’t rush to develop one “bottom line” index. Resilience plays out across biological, economic, environmental, social and cultural factors; and indices might be more appropriately developed by sectors first, especially since policymakers are used to thinking in “buckets and silos,” and not in terms of comprehensive community development.

2. **Test and verify** – What might appear to be a common sense indicator isn’t always the case. ASU’s John Reich, for example, notes that “the support of friends and acquaintances is commonly thought to be a major aid to adjustment and coping with life stressors. However, actual quantitative research on that hypothesis is not always supportive, and the data are surprisingly inconsistent.” On the other hand, the opposite hypothesis – providing support to other people has favorable benefits compared to receiving support – appears to be true. So much for the old adage that social science merely confirms what common sense tells us.

3. **Involve the community** – If what gets measured, gets done, the people who will get it done need a stake in the process. Lessons from other countries and communities on developing indicators that seek to measure sustainability and resilience point to strong disagreement on what ought to count as indicators of things like ‘social cohesion,’ and what it means when a number goes up or down. To minimize the politics of developing indexes that are applied as arguments for social policy, it is best to involve the public right at the start.

4. **Communicate, communicate, communicate** – If a focus on community assets and resilience is ever to be heard among the deafening roar of the risk and deficit hawks, researchers and community leaders will need to execute a well-defined communications strategy. Dare we mention the M&B words – marketing and branding?
Getting Started: 
Some Possible Indicators

Just so we have some idea of what we mean when we talk about developing a resilience index, and how it might look different from a risk-based index, here are a few general examples, offered in the spirit of further inquiry and collaboration. It is meant to be illustrative, not complete.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Risk</th>
<th>Resilience</th>
</tr>
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<tbody>
<tr>
<td>Physiological</td>
<td>BP &gt;140/90</td>
<td>Heart rate variability</td>
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<tr>
<td></td>
<td>Cholesterol &gt;200</td>
<td>Rapid stress response recovery</td>
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<td></td>
<td>Body Mass Index &gt;25</td>
<td>Immune responsivity/regulation</td>
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<tr>
<td></td>
<td>Genetic risk</td>
<td>Genetic factors of stress resilience</td>
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<tr>
<td></td>
<td>(mental illness, heart disease, etc.)</td>
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<tr>
<td>Psycho-Social</td>
<td>Substance abuse</td>
<td>Learning/memory/executive functioning</td>
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<td></td>
<td>Social isolation</td>
<td>Positive emotional resources</td>
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<tr>
<td></td>
<td>Domestic violence</td>
<td>Secure family relations</td>
</tr>
<tr>
<td></td>
<td>Depression/isolation/helplessness</td>
<td>Volunteering, social connectedness</td>
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<tr>
<td>Social-Community</td>
<td>Poverty/unemployment</td>
<td>Retraining/mentoring/outreach activities</td>
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<tr>
<td></td>
<td>School drop-out rate</td>
<td>Educational achievement/skill development</td>
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<tr>
<td></td>
<td>Crime</td>
<td>Leisure activities, sports, civic associations, etc.</td>
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<tr>
<td></td>
<td>Age dependency ratios</td>
<td>Early childhood/home care services</td>
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<tr>
<td></td>
<td>(# under 5, over 85)</td>
<td></td>
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<tr>
<td>Economic-Environmental</td>
<td>Chronic unemployment</td>
<td>Job creation</td>
</tr>
<tr>
<td></td>
<td>Air/water quality, natural disasters</td>
<td>Robust monitoring/feedback systems</td>
</tr>
<tr>
<td></td>
<td>Power/fuel shortages</td>
<td>Redundancy in power/public transportation</td>
</tr>
<tr>
<td></td>
<td>Unplanned urban sprawl</td>
<td>Robust data systems for ecological footprint/analysis and regional planning</td>
</tr>
</tbody>
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Box Score

COLLABORATION

STRENGTH: Gets people, communities and interests to sit around a common table. They pledge their attention, commitment and resources to address common issues.

WEAKNESS: Not all the stakeholders are on the same page in terms of resources, skills, political power or connections to these things. By itself, collaboration can gloss over these differences and often falls apart when they surface, as they ultimately do. Then, too, collaboration for collaboration’s sake is too tedious for words. One recent bumper sticker says it all: “Save a tree. Kill a collaborative!”
The Politics of Resilience: Community Organizing and Development

If we want to build healthy and resilient communities, we eventually get to politics, or “the art of the practical.” It’s easy to be seduced by the lofty talk of theory and the tools we will apply to influence social change, and then neglect the long road of daily struggles, disappointments and triumphs in communities where the actual work gets done.

Building resilient communities is like learning to swim: You can’t get it done without getting wet.

How do we go about building resilient communities? There are at least three general approaches:

1. **The collaborative approach.** This makes sense, plus it feels good. We get all the community stakeholders together, see where common interests lie, and then work it out. Foundations like SLHI are especially fond of this approach. We get to convene and collaborate, then we usually get to go home.

2. **The planning approach.** This not only makes sense, it’s also logical and rational. We have all these problems that demand analysis, planning and solutions. What better thing than to get together experts and professionals in various fields to research and analyze the problems, develop plans and “visions,” and then drop them off in the affected communities. Surely citizens will rally around and implement the plan, because it’s rational and based in science. It’s obviously the right thing to do. Universities, think tanks and foundations like this approach. Lots of grant money.

3. **The conflict approach.** This makes sense as well, but it doesn’t always feel so good. There are the haves and have-nots, the die-hard liberals and conservatives, the secular and religious, etc.; and because they have opposing interests and beliefs, they duke it out in the political arena of conflict and struggle. Not many funders feel comfortable in this world. Too messy and “irrational.”

We caricaturize these approaches to make a point: None of them will build resilient and adaptive communities by itself. There’s power in each, but much greater power in all of them together. The art of building resilient communities lies in using all of them, and in knowing when to use each of them in the community building process – and when not to.21

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**PLANNING**

**STRENGTH:** Expertise, resources, credible data and skills are available to communities to inform their organized response to such systemic problems as drug abuse, chronic diseases, poverty and high school drop-out rates.

**WEAKNESS:** Fosters a client-expert relationship and a culture of dependency on outside assistance and services to “solve” problems. Can weaken community resilience over time.

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**CONFLICT**

**STRENGTH:** Builds strength and power through the real world political process. Before you can work on your agenda, you need the power to get your agenda on the table and move it through the system.

**WEAKNESS:** Can foster a culture of difference, mistrust and self-interest. Builds communities of interest and need, but not necessarily a community of shared concern and purpose.
How do collaboration, planning and conflict play out in strategies to increase community resilience? To maintain some symmetry, we outline strategies in three dimensions: community organizing, community capacity building and community development. Again, our central message: We build resilient communities by employing all of these strategies, and not by relying on any one of them alone.

**Community Organizing**

Community organizing is the process of developing a politically powerful constituency of resident participants to effect social change in their own communities. This is the real deal of grassroots “heavy lifting”: holding individual and house meetings, identifying and nurturing local leadership, building local organizations into greater regional organizations, meeting with local and state political officials and turning up the heat in the political process to get their agenda on the table.

Community organizing openly embraces conflict. Politics is not a dirty word – it’s the only way things get done. This strategy also employs the collaborative approach to suit particular ends. We see less of the “rational planning” approach in community organizing.

As a strategy, community organizing promotes a high degree of civic engagement, active learning and community leadership, all of which are characteristics of resilient communities.

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**The Arizona Interfaith Network**

Over the past three years, SLHI has provided core operating support to the Arizona Interfaith Network, a statewide network of over 150 member congregations, schools, unions, nonprofits and education associations that represents a classic example of the community organizing strategy. Membership is organized in five regional organizations, all of which seek “to identify leaders capable of learning how to articulate the needs of their families and to take action.”

Like all successful organizing networks, AIN is multi-issue. They grow in numbers and clout by linking up issues across communities, such as housing, better schools, long term care, better jobs and so on. Local leadership identification and training is the core function.

Frank Pierson, AIN’s executive director, views community organizing as drama:

“The political stage contains many plays and roles,” Pierson says. “We train activists to feel powerful and comfortable in playing these roles in their own communities, and to enlist and teach their neighbors and friends.

“You can’t build strong communities without organizing. People have more power than they realize, but they have to exercise it together. They have to get organized.”

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**Community Building**

Community building focuses on developing new relationships, new connections out of existing relationships to increase the capacity of citizens to address common issues. As the strategy is used here, the focus is on developing community assets already in place – experienced leaders, skills, knowledge, service infrastructure – and not on simply providing more services to address community deficits. As an asset-based strategy, community building is central to developing resilient communities.

This strategy makes extensive use of collaboration, not necessarily in the sense of getting “stakeholders” to the table around specific issues (although that goes on), but in the sense
of developing a broad base of organizations and citizens to leverage their internal assets to “grow” more assets themselves. Different groups with often different agendas and skill sets come together through community building, and the process isn’t always a smooth one.

Although it’s not a primary focus, community building will also apply some of the techniques of community development, such as providing technical assistance, to increase the capacity of specific organizations in the collaborative process. Unlike community organizing, community building often focuses on a single issue, although one with multiple dimensions, such as children’s issues, aging issues, chronic diseases, etc.

### Life Options

One example (out of many) of the community building strategy is the Life Options Initiative. Life Options started as a collaboration between Civic Ventures, a nonprofit organization focused on expanding the contributions of older citizens to society; Libraries for the Future, a nonprofit organization linking libraries to other community organizations to promote learning; and the Virginia G. Piper Charitable Trust, an Arizona private foundation with an interest in, among other things, aging issues.

The idea is to create “life option centers” throughout the community – churches, schools and colleges, libraries, community centers – that are deeply embedded in the daily lives of citizens and that provide opportunities for health, growth and active learning. “Retirement” centers these are not!

According to Carol Kratz, program officer at the Piper Trust, Life Option’s strategy of “intentional integration” focuses on leveraging the assets of existing community organizations to create these new centers in ways that are seamlessly integrated for the benefit of adult learners and are not duplicative or competitive.

“It takes patience,” Kratz explains. “Collective action requires cooperation, and cooperation requires trust. The longer you keep people working together, all sorts of interesting possibilities start to emerge.”

### Community Development

As a strategy, community development is similar to community building in its emphasis on collaboration, but it has a much heavier emphasis on planning, especially where applied to capital and resource development. This planning generally involves community leaders with access to resources; government and other public officials; and experts in various areas. Generally speaking, community development is more “top-down” than community building, and almost the polar opposite of community organizing, which is definitely “bottom-up” in the sense of engaging everyday citizens in agenda setting.

Access to capital – leveraging capital – is a defining focus of community development as used here. Community leaders identify the issue, develop a plan, and then find the resources to implement the plan. The approach is
focused, “rational” and often effective, especially where political and economic clout is brokered and brought to the planning table.

The success of community development as a strategy ultimately comes down to leadership: knowing when a window of opportunity presents itself and marshaling the resources to step through.

Arizona Bioscience Initiative

An excellent example of the community development approach is the Arizona Bioscience Initiative. This is a multi-pronged effort to develop the state’s capacity to compete in the growing area of bioscience, where fields such as medicine, biology, engineering and the information sciences combine in new and powerful ways to drive human and technological change.

What began as a successful effort to attract the Translational Genomics Research Institute (TGen) and the International Genomics Consortium (IGC) to Phoenix has now blossomed to include a strategic plan to “fast track” Arizona's Bioscience capacity through the development of public-private partnerships, inter-university programs and collaboration, entrepreneurial business activity and sustained government support.

It’s bold, it’s imaginative and – so far – it’s demonstrated success in a short period of time.

As a community development strategy, the Bioscience Initiative relied on the early convening of key individuals and organizations by the Flinn Foundation and the subsequent development of a plan for enticing TGen and the IGC to relocate to Phoenix. Experts, power brokers, government officials and other leaders in key agencies and fields rallied around the project and raised approximately $100 million to start things rolling.

Relentless planning and leadership drove the process, and continue to drive it today.

Ten Rules of the Road

We all need to be about the business of building more resilient and thriving communities. Here are ten “rules of the road” collected from fellow travelers:

1. Building resilient communities takes more time than three- or five-year initiatives. Be prepared for a long-term commitment.
2. Resilience grows through the support and extension of natural caring relationships. Nurture these wherever possible.
3. Resilience starts with strengthening the natural helping institutions in neighborhoods and other geographical settings. Build bottom-up.
4. Be a coach and ally, not an expert.
5. Social change requires confrontation as well as collaboration. Don’t be afraid to invest in organizing.
7. You can’t motivate others by focusing first on what they lack. Start with strengths, with assets.
8. Build social support through peer-to-peer learning networks.
9. Don’t be a control junkie. Community resilience arises from self-organization, active learning, surprise and adaptation. Self-control arises from mastery. Develop that first.
10. Disappear into leadership. Encourage the light in others. The world will roll at your feet.
Five Wells Waiting to be Tapped

With a tip o’ the hat to our friends at ASU’s Morrison Institute, whose widely cited report, Five Shoes Waiting to Drop, outlines key deficits that, if left unattended, portend dire consequences for Arizona, we offer the following Five Wells Waiting to be Tapped. Our deficits, it turns out, are also sources of strength:

1. **MEXICO.** Arizona’s large number of Hispanic residents and proximity to Mexico present a huge economic, social and cultural opportunity. Look at the demographic and cultural forces of the future. Where is growth and change predicted to occur? It is most likely to come in the South and East – Mexico, South America, China and Asia – and not necessarily in the more developed North and West. Arizona is well positioned to take advantage of this cultural and economic explosion. Yes, we have to attend to serious problems, but they should not detract us in the long term from pursuing policies and community development strategies that encourage biculturalism, not monoculturism; diversity, not uniformity.

2. **THE CHURN.** As part of the American West, Arizona has the allure of openness and expansion, the feeling that all things are possible. One could make the argument that this window of optimism is being fogged over by the attendant problems of rapid urbanization, depletion of natural resources and border issues, but the fact remains that thousands of people arrive in the state every year seeking a better life. The attendant restlessness – the churn of people, ideas and opportunities in a cauldron of explosive growth – is a massive source of energy waiting to be tapped for building more resilient, vital communities. This includes not only the energy and optimism of a growing population of young people, but also the skills and experience of an influx of older citizens, many of whom are actively seeking ways to get more involved in community life. We should focus on ways to connect these two groups.

3. **A CLIMATE RIPE FOR INNOVATION.** Rapid urbanization and growth provide a climate conducive to innovation. Arizona has ample land and strained water supplies. We exploit both for short-term gain – a positive feedback loop – and end up with a negative feedback loop of traffic jams, heat islands and water shortages. This literally forces us to innovate, to experiment with finding a new “watering hole” through the systematic application of advanced technologies, innovative approaches to community planning and zoning that encourage high levels of physical and social connectivity, and economic development that sustains and even enhances the natural environment. ASU’s plan to create the Consortium for the Study of Rapidly Urbanizing Regions is a step in the right direction. This won’t amount to much, however, if the development and application of principles of intelligent design are not deeply embedded in actual communities through the strategies of community organizing, building and development mentioned earlier.
4. A PERMEABLE POWER STRUCTURE. Arizona’s power structure, especially in its major urban areas, is permeable and diffuse compared to the more vertically integrated and concentrated power structures of older communities in the East and other sections of the country. Newcomers to the state often remark how easy it is to get in to see people with connections to economic and political power, how friendly they are and how open everyone is to collaboration. The flip side, of course, is the perception that people are less “rooted” in place here, and therefore less vested in working for positive social change over the long haul. But to the extent that all Americans these days are “uprooted” by the forces of economic globalism, technological change, and a dominant and often suffocating blanket of mass media and commercial culture, our permeable power structure presents opportunities for new associations, collaboration and social connections - the very ingredients of resilient communities. Perhaps what we have here is an opportunity to build resilience through “just in time” communities, whose ad hoc and transitory connections are better suited to today’s climate of hyper-change than older, more hidebound communities.

5. LEADERSHIP. It’s commonplace to bemoan a lack of leadership, not only in Arizona but all over the world, where people buffeted by the gales of change, dislocation and suffering cry out for deliverance. In our opinion, the issue isn’t leadership, but leadership for what. Arizona is literally teeming with leaders. Visit any community clinic, church, business, political caucus, volunteer center, school or neighborhood, and you will find ordinary people inspiring others to action with a spirit of optimism, energy and hope. There is a wide pool of leadership talent waiting to be tapped in our state, but we don’t always see it because we are so focused on our deficits and needs that we externalize them as problems only others can solve, and miss the many ways we can begin to address them ourselves. And that, really, is our central message: When we focus first on our strengths, and not on our limitations, an entire world of new possibilities begins to emerge.

To paraphrase the Danish philosopher Søren Kierkegaard, life is understood backwards, but it is lived forward. When we reframe health in the new key of resilience, we turn our attention first to what we have in this world, not what we lack, and then to how we can extend those assets in ourselves and our communities to promote learning, adaptation and, ultimately, hope.

Some things we can change, some things we can’t.

We can change how we look at the world, and that’s a start.
Acknowledgements and Sources

SLHI Issue Briefs are very much a collaborative effort. We are especially indebted to ASU’s Resilience Solutions Network, and to John Hall and Alex Zautra in particular, for introducing us to the concept of resilience. The Network provided a wealth of background information and perspectives, and helped to shape earlier drafts of this publication.

We also profited from conversations with Ervin Sandler, a professor of psychology at ASU’s Program for Prevention Research, who introduced us to the concept of resilience in adolescents and its link to prevention programs that actually work.

Thanks as well to Ginger Ward and Jan Martner at Southwestern Human Development for sharing their agency’s experience with focusing on resilience factors in very young children through their Head Start programs. Teachers who are trained to identify and encourage the strengths children already have get better results than teachers who see only the deficits and concentrate on “filling them up.”

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Notes

2 Excerpted from the Managing Wholes website (www.managingwholes.com/mcknight.htm).
5 Zautra, Alex, in Hall, op. cit., p. 3.
6 Reich, John, in Hall, op. cit., p. 4.
7 Hall, John, op. cit., p. 4.
10 Castro, Felipe Gonzales, “in Hall, op.cit., p. 16.
13 Economics here is defined in the broadest sense as not only the production and distribution of goods and services, but the exchange generally of all material and non-material things, including information, values, signs and symbols, etc.
15 A more extensive discussion of the concept of remoteness can be found in Plumwood, V., “Inequality, Ecojustice and Ecological Rationality,” a conference paper available online at www.arbl.unimelb.edu.au/envjust/papers/plumwood.
19 Canada is one example of developing and tracking national and community indicators of social, economic and environmental progress. See the GPI (Genuine Progress Index) Atlantic web site at www.gpiatlantic.org. Numerous states and communities in the U.S. have similar projects in the works. One example is the U.S. Department of Energy’s Smart Communities Network project, found at www.sustainable.doe.gov. Tucson, Arizona is a participating community.
20 Reich, op. cit., p. 24.
21 This point is made forcefully in the Annie E. Casey Foundation publication, “In the Eye of the Storm: Ten Years on the Front Lines of New Futures,” available from the Casey Foundation or online at www.aecf.org/publications/eyeofstorm.
23 Learn more about The Arizona Interfaith Network at www.arizonainterfaith.org.
24 There is an extensive literature on asset-based community development. See, for example, Kretzman, J. and McKnight, I., 1993, Building Communities From the Inside Out, Chicago, IL, ACTA Publications.
Our Mission

To improve the health of people and their communities in Arizona, with an emphasis on helping people in need and building the capacity of communities to help themselves.

The purpose of Arizona Health Futures is to unravel an important health policy topic of relevance to Arizonans, provide a general summary of the critical issues, background information and different perspectives on approaches to the topic; tap into the expertise of informed citizens, and suggest strategies for action.

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Comments and suggestions for future issues, as always, are welcome.

St. Luke’s Health Initiatives is a public foundation formed through the sale of the St. Luke’s Health System in 1995. Our resources are directed toward service, public education and advocacy that improve access to health care and improve health outcomes for all Arizonans, especially those in need.