ARIZONA HEALTH FUTURES
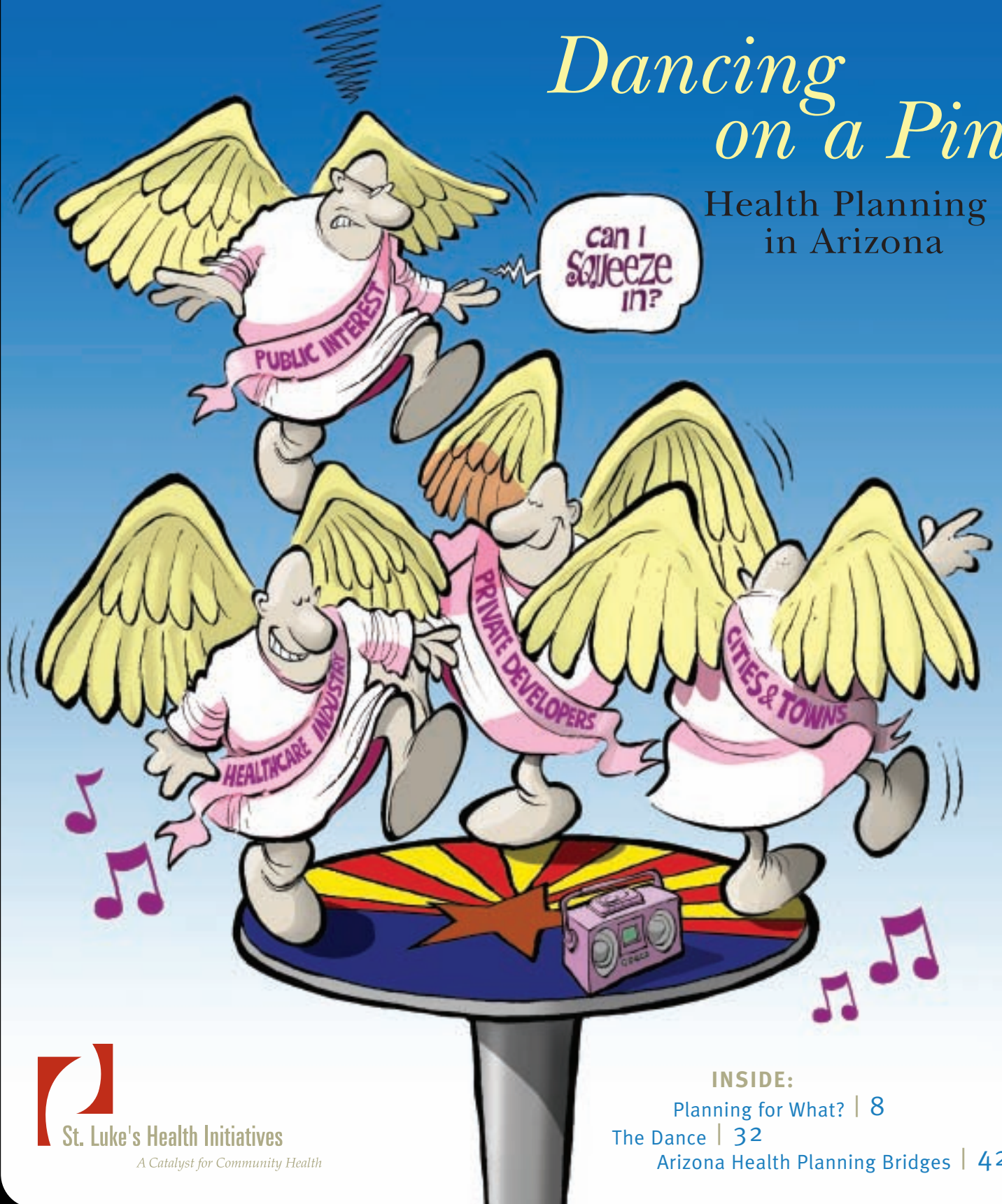
Dancing on a Pin

Health Planning in Arizona

St. Luke's Health Initiatives
A Catalyst for Community Health

Multiple Choice

It's 2030. Close to 11 million people live in Arizona – 7.5 million of them in the sprawling megalopolis of Maricopa and Pinal Counties alone. Which of the following best describes the situation:

a. A thriving, forward-looking state that sets the standard for intelligent, sustainable community planning and high quality of life. A hub of innovation, a magnet for talent and investment.

b. A fragmented, uncoordinated collection of disparate economic, political and ideological fiefdoms, with little community planning and huge gaps between the rich and poor. A magnet for the transient and temporary.

c. Neither of the above.

If you chose c, go to the head of the class.

We can imagine the future and work to create it, but we can't predict it.

AHF

Dancing on a Pin

If we can't predict the future, it's not for want of trying. Whether we distinguish between predictions, forecasts, projections, scenarios, trends, multi-variate extrapolation, statistical modeling and wild cards, the fact remains that *planning* for the future is a huge and growing industry unto itself. Big bets are being placed on the results of a multitude of processes that, while dressed up in the rhetoric and rigor of science and rational analysis, often have the same net effect as consulting the movement of stars or the entrails of fish.[1]

No longer, say the high priests of the emerging information sciences. New tools and processes promise to bring clarity, order and *control* to planning for the future. We didn't know much back then. We're so much smarter now.

Perhaps. But in the long sweep of human endeavor, the latest fascination with the methods, tools and systems of planning – no matter how sophisticated or powerful – can be firmly situated in an abiding faith in progress through the application of science and technology to all manner of obstacles, whether they relate to our health, economy, environment, culture and even our values and beliefs. In one sense, today's masters of rigorous planning are the *New Medievalists*: They want to determine how many angels can dance on the head of a pin.

Only now the *angels* are the competing interests, desires and values of the populace, and the *pin* is the increasingly restricted and crowded physical, social and cultural environment in which they interact.

Straight up on the new planning axis, we are literally awash in information and data on the characteristics of the dancers themselves and the pin on which they move. We can tell you more than you ever wanted to know about the populace and the environment, and our emerging tools in the information and biological sciences promise to help us probe even deeper into the mysteries of biological and environmental interactions and unleash a new age of optimal health and sustainable growth.

Dancing Together

But describing the dancers and the pin is one thing, learning to dance is another. One turn off the planning axis, we are faced with applying all this information and data in the planning process itself, where we quickly discover that not all our partners hear the same music or use the same moves. The result is ever more noise, dislocation, fragmentation and competition for limited space on the pin.

Our problem is not that there are too many angels dancing on a pin. It's that we dance to our own tune separately rather than together.

Is it possible to hear the same music and dance together in a fast-growing state like Arizona? Even if we can't predict the future, can we come together to *imagine* what we would want it to look like for optimal health and a high quality of life for everybody? Can we plan for a shared vision of the future in a voluntary process that ensures maximum freedom and responsibility, or will we find ourselves stymied by powerful forces beyond our control and resort to ever tighter restrictions in the forms of public mandates, rules and regulations?

These are questions we explore in this *Arizona Health Futures* Issue Brief.

"O body swayed to music,

O brightening glance,

How can we know the dancer from the dance?"

William Butler Yeats, "Among School Children"

Method *and Scope*

This report is the result of a critical review of the history, research and literature on health planning and its various manifestations in public policy and market-driven behavior, as well as insights from over 30 interviews with experts and stakeholders in the health planning process – or lack thereof – in Arizona.

In addition to incorporating information and themes on selected health care and community health issues covered in past Arizona Health Futures publications (workforce, safety net, public health, trauma, resilience), we also include background information on planning issues concerning the "built environment" compiled by SLHI over the past year.[2]

As in all of our *Arizona Health Futures* work, we attempt to *frame* issues of healthcare access, quality, and cost in ways that both inform and resonate across a broad spectrum of players in the public policy process to leverage better health for all Arizonans, but especially those most in need. The issues rarely change, but the way we collectively *think* about them can.

The genesis for this reframing of health planning grew out of discussions with public officials, city planners, public health professionals, health industry leaders, advocacy organizations and others who share a view that, in the face of rapid economic development and population growth in Arizona, we lack leadership and effective mechanisms for planning that can sustain and enhance the future health of our citizens, cities and towns, and physical environment.

While no one expressed an eagerness to resort to a heavily regulated environment, all wondered whether there might be some *voluntary, cooperative, community-based process* that links individuals and organizations with various levels of information and planning to guide the development and deployment of health care and community health services in the *right way* for the *right reasons*.

We start in the traditional way, but we won't necessarily end up there:

- **THE QUESTION OF DEFINITIONS:** What is health and health planning? This is not as obvious as it seems.

- **PLANNING FOR WHAT?** Is health care an economic driver or a social investment? People with different maps usually end up in different places.

- **THE PAST AS PROLOGUE.** We briefly review where we've been with health planning – assuming we're still capable of learning from history.

- **COMPETITION OR REGULATION?** A tour through two allegedly different health planning approaches. The received wisdom and critique of each.

- **ARIZONA'S GROWING HEALTHCARE INDUSTRY.** Hospital and workforce planning, data dilemmas, tools and issues.

- **THE BUILT ENVIRONMENT.** What it is, and why it's important in any health planning process.

- **PLANNING TOOLS.** Policies, regulations and their application – or not – to health planning.

- **THE DANCE.** The melody and moves of where we are now in health planning – and where we might be headed. Orchestrating an unknown future.

We season the above with comments from stakeholder interviews and an occasional novel metaphor. When a subject is framed slightly askew, we may come to see it in a new light.

Health, Health Care & Planning

A Conceptual *Framework*

How we name and define something determines to a large degree how it emerges through human practice. In the case of *health*, this has both positive and negative dimensions:[3]

☹ **NEGATIVE** Health is the absence of illness and pathology. This is the deficit definition. Health proceeds through diagnosis and treatment based on science, evidence and best practices. Illness, pathology, needs and deficiencies are identified. Treatment and services are provided. Patients and communities are "restored" to health.

☺ **POSITIVE** Health is the harmonious integration of mind, body and spirit in a responsive community. Strengths and assets of individuals and communities are identified and promoted alongside needs and deficiencies. The focus shifts from intervention to prevention, from fragmentation to integration.

From Health to Healthcare

These dimensions of health are not either-or, but both-and. Historically, the negative dimensions of health have grown in direct proportion to rapid advances in science and technology, especially over the past century, as we understand more about biological processes and how to effect them toward desired ends through ever more powerful interventions. The descriptive and analytical approach of science, embodied in the education and training of professionals and implemented through a growing network of institutions and organizations, effectively shifts the emphasis from health to *healthcare* – the intervention and restoration processes themselves.

In this way we have gradually removed the "space" between health and care and come to view health almost entirely as *healthcare* – the sprawling organizational apparatus (the "system," if you wish) through which these processes are carried out. In the public vernacular, there is an easy conflation of health care with *medical care*, as most of the care processes are carried out by medical professionals and other "caregivers." Indeed, for many people these terms are synonymous.

This "transformation" of health into healthcare has not occurred without a certain amount of irony: lack of access to medical care is not the chief determinant of disease, compared to other factors (see Fig. 1). Personal behavior and the choices people make have the greatest impact on health. Nevertheless, the stunning growth of the healthcare industry over the past 50 years has eclipsed completely other formulations and approaches to health, such as public and environmental health, with predictable consequences for the health planning process. How this plays out in a fast growing state like Arizona – and how it might play out in the future – is the principal focus of this analysis.

Figure 1: Determinants of Disease

48%
Behavioral Lifestyle

25%
Genetic Constitution

16%
Environment

11%
Lack of Access to Medical Care

Source: American Public Health Association, 1999

Health in a New Key

Elsewhere we have referred to the positive definition of health as "Health in a New Key," and discussed the application of the principles and techniques of strength-based development and resilience to promote healthy individuals and communities.[4] This is a *normative* definition of health, as distinct from a purely *descriptive* definition. It incorporates norms, or standards, of health that, while firmly grounded in science, are extended through social connections of shared values, purpose and beliefs. This is more than what health *is* – it's an argument for what health *ought* to be if we wish to achieve "the harmonious integration of mind, body and spirit in a responsive community."

The issue at hand is whether we can move to the "ought" of Health in a New Key in a climate dominated by the more narrow economic and cultural imperatives of the healthcare system itself *within some type of planning process* that bridges the differences between that system and other dimensions of health, such as public, population-based and environmental. If so, what would – or should – that planning process look like?

ROADMAPS

It's all the fashion these days to create "roadmaps" for the future. But what is a roadmap, and how is it different from a plan?

Think of it this way: MapQuest will give you a route to follow from Phoenix to New York, but it won't tell you anything about the journey itself (where to stay, interesting side trips), who will be traveling with you, and all of the surprises along the way. You can research how much it will cost if you fly, drive or stay in fancy motels, but you still may not know who ought to foot the bill.

First you get the roadmap, then you develop a detailed plan for the trip. But even the plan is no guarantee that you'll get there. It's a mystery and a muddle. As in life itself, the journey is the thing.

A**H**F

Plans *and Planning*

Right away we see the chief difficulty: Planning – the formulation of a scheme or program – presupposes a specific aim, end or purpose. In an arena as complex as health and health care, the ends are multiple, contentious and, on the surface, often appear mutually exclusive.

It's one thing to get agreement on the 30,000 foot ends – improve the quality of life, expand health and wellness, develop "healthy" communities – and quite another thing to break those ends down into *ends-in-view* that have practical consequences for immediate policy considerations, such as whether to develop a medical college, site a new hospital, craft environmental regulations for communities that don't yet exist, and so on. You can get people to the planning table for the former. The trick is keeping them there for the latter.

For purposes of this analysis, we focus on those ends-in-view that have policy implications for developing a "Healthy Arizona" within the next five-ten years. Our chief interest lies less with the content of plans themselves (number of physicians and hospitals, specific rules and regulations, specifications of the "built environment") and more with the nature and characteristics of planning *processes*: what they are and ought to be, the interests and legitimate claims of stakeholders that need to be involved, what is practical and realistic, what is best regulated or left to so-called "market forces," and their implications for public policy and action agendas.

The case we develop, stated generally, is that the future of a fast growing state like Arizona will play out in an environment that is destined to paradoxically hook up and break apart at the same time. As our interdependency in shared physical, natural, social and economic space grows apace, so does the fragmentation of that space into ever more narrow "bits and bytes" of competing interests, values and beliefs. The ideal of fostering a Healthy Arizona for all of our citizens will depend on *bridging* those differences through both formal and informal planning activities and the development of sophisticated knowledge networks that link planning with policy and practice.

The chief output of these networks will not be knowledge itself, important as it is. It will be the trust and confidence that develops from working together on an enterprise in which everyone has a stake in its success.

In the end, that is what the dance is all about.

"Communities can think about health care needs, but they need to think of health care as an economic driver, too. These are the kinds of communities we want to work with, and they don't all have to have a bunch of rich people wanting to live there."

Hospital Planner

"I'm not against progress.
I'm just against change that I don't like."

Mark Twain

Planning

Health Care as an *Economic Driver*

In the 1967 movie, *The Graduate*, a young Dustin Hoffman is given one word of advice from a patronizing businessman on how to guarantee his future success: *plastics*.

Were *The Graduate* to be updated for the early 21st Century, that key word for "leapfrogging" into the future would be *biotechnology*.

That's the advice of the recent Arizona Board of Regents report, *Eds and Meds*, which lays out the case for conceptualizing health care as a "knowledge industry," for "treating health as an economic opportunity," and for marshaling the educational, human and financial resources to move Arizona to the front rank of states competing for investment and talent.[5]

What are the implications of this advice for health planning?

The *Eds and Meds* report is the logical extension of the process described in Paul Starr's seminal work, *The Social Transformation of American Medicine*, in which he traces the history of the medical profession and the "making of a vast industry."[6] In the healthcare industrial model –

- Personal health becomes a commodity

- Physicians and other medical professionals become workers

- Patients become consumers/clients

- Provision of care becomes modes of production

- Variations in care collapse into standardized "best practice" algorithms

- Hospitals and other physical venues become "focused factories"[7]

- Market-driven competition improves efficiency and outcomes

Conceived as an industry and economic driver, healthcare planning is chiefly concerned with an analysis of markets, capital and labor. Planners focus on issues such as whether to build hospitals in new communities and forecasting the need for physicians in various locations and specialties, among many others. Most of what we characterize as health planning in Arizona and other states falls within the industrial planning model, and in that respect it differs little from planning in other industries. Talk to a health planner for a regional hospital system, for example, and you would likely have a conversation similar to that with a regional planner for Wal-Mart.

Health care has developed into a bona fide industry, but it happens to be one in which approximately 85 percent of hospitals are nonprofit, tax-exempt entities, and close to 50 percent of the "product" is financed through public tax revenues. The dilemma for health planning then, now and presumably well into the future, is balancing the often competing demands *of margin and mission* – the imperatives of the economic marketplace with the social mission of the enterprise.

for What?

Health Care as *Social Investment*

Your conversations with the Wal-Mart and hospital planners would differ in certain respects, however:

- People can't walk into Wal-Mart and walk out with merchandise without paying for it. Under certain conditions, they can receive treatment in a hospital and not pay for it – although somebody will.

- The Wal-Mart planner can model with some confidence the impact of product pricing on consumers, given that pricing is transparent between buyer and seller in most commodity industries. This is decidedly not the case in the healthcare industry. There is little transparency of information between buyers and sellers. Indeed, users of the product are often not the purchasers at all. That's the function of a third party, such as a private health plan or government program.

- The Wal-Mart planner operates in a market that exhibits a comparative high rate of predictability in product selection and use, in effect reducing the rate of risk in planning for a new store and forecasting volume and profit. Not so the health planner. The leveling effect of "risk pooling" aside through private and public health insurance, she still has to model such uncertainties as future rates of the uninsured, the prevalence of diseases/conditions that may prove expensive to treat, variations in treatment patterns among admitting physicians, an adequate supply of physicians and nurses, Medicare and Medicaid payment rates, and so on. Planning for a hospital is a much more risky proposition than planning for another Wal-Mart.

Some of these differences arise from historical anomalies in the development of the healthcare industry, such as the link between health care coverage and employment and the rise of the third party health insurance system. Underlying it all, however, is the "privileged" position of health and health care as social investment:

- Health and health care are perceived as social goods

- As a social good, access to health care at some level has become a de facto right[8]

- As a social good, the cost of the risks to health (illness, disease) are ideally to be spread equitably across the healthy and ill, young and old alike

- Public programs are instituted to distribute health care to defined categories of beneficiaries

- Certain healthcare providers and institutions are designated as a "safety net" for persons in financial need

- General health is promoted and extended for the public's welfare through public health institutions, programs and activities

- Laws and regulations are promulgated to insure public health, safety and well-being

To the degree that margin eclipses mission within key sectors of the healthcare industry, the social investment aspect of the enterprise is called into question, and along with it its nonprofit, tax-exempt status.

This has already started to occur.[9]

Health Planning is Dead.
Long Live Health Planning!

Why Plan?

The mantra of economic development and the opportunities it generates for citizens drive market expansion all across the country and certainly in Arizona, which is currently ranked as the second-fastest growing state in the U.S.[10]

But economic growth is a double-edged sword. It both builds and destroys at the same time. While citizens recognize and participate in its benefits, they express concern that relentless and "unplanned" growth will destroy the very quality of life that attracts so many people to Arizona in the first place, and will negatively impact families, businesses and public health in the future. A high level of people without access to affordable health care, poor health status for selected population groups, problems with air, water and increasing levels of stress from living in a rapidly urbanizing environment – these are just a few of issues that the "market" alone arguably cannot address.

The concern with unplanned growth is endemic. Reviews of reports on growth in Arizona and the results of countless interviews support the conclusion that "runaway" growth is not simply the "issue du jour" of a few activists and advocacy groups but cuts a wide swathe across the entire population. Few expect to see growth slow (pending economic decline generally), but there is broad-based concern that *planning* for the impact of growth on all aspects of our lives is imperative if we wish to have a high quality of life and live in healthy communities.

Concurrently, there is a much broader understanding today of the multiple factors that influence quality of life and general personal and community health. More attention is paid to the interrelationships between the natural and built environment, technology and science, the healthcare system, education, business and public health as they impact economic, social and cultural change.

As a result, multiple groups and interests must come to the planning table for desired change to occur.

Separate Ways

This is easier said than done. In the latter part of the 19th Century, Americans migrated from the countryside to cities, as did rising numbers of immigrants from other countries in search of a better life. They assembled in crowded tenement housing and factories; yellow fever, cholera, typhoid, scarlet fever and diphtheria increased rapidly.

In response, a collaboration known as the Sanitary Reform Movement examined issues of waste disposal, construction, drainage, ventilation and sunlight. This group of professionals recommended that local governments install sewage systems, improve streets, enact sanitary codes and create standards for building construction. These changes in the "built environment" resulted in dramatic improvements in the public's health.[11]

As the 20th Century proceeded, however, city planning, public health and medicine fragmented into ever more narrow disciplines and interests, and each went their separate way. Urban planners focused on economics and aesthetics, medicine focused on acute illnesses, and public health officials continued their focus on infectious diseases and emerging chronic illnesses, with limited exchange between the various groups.[12]

The Promise of Planning

Today, these disciplines are rediscovering their common interests. Obesity, depression, injury, cardiovascular disease, asthma and violence are medical and public health issues directly impacted by personal behavior and the natural and built environments. Public health and medical officials are once again working alongside transportation planners, parks officials, architects, engineers and urban designers to plan for an integrated environment that promises to promote *Health in a New Key* in the 21st Century. These trans-disciplinary and community-oriented efforts mark a new surge in comprehensive and collaborative planning all across the country.

Or so we hope.

"The reason that people don't engage in planning is that the language is exclusionary. And planning doesn't go anywhere. It's an exercise for people who have already figured out what they want to do."

Community Activist

The Past as Prologue:
Certificate of Need (CON)

The American Health Planning Association defines the goal of health planning as the development of comprehensive, community-oriented health systems that assure access for all citizens to high quality health care at the most reasonable cost.[13] While few disagree with that goal, there is considerable difference of opinion on *how* it might be achieved, and the roles of regulation and competition in the process.

People familiar with the history of the healthcare industry often equate health planning with the *Certificate of Need Process (CON)*, which grew out of the perceived health care "crisis" of the mid-1970s, a time of rapidly rising costs, problems with access to care, high malpractice premiums and turf wars in a fee-for-service, cost-based reimbursement system that was trying to adjust to the realities of the recently created Medicare and Medicaid programs. At the time, many people asserted that the market was failing to control the supply of facilities through competition alone, and this was generating ever greater and unnecessary costs (too many hospital beds, too many procedures, a duplication of expensive technology, etc.).

In response, the federal government passed the National Health Planning and Resources Development Act in 1974 to provide incentives for states to create CON programs. The general idea was for healthcare providers to submit to a "certificate of need" process to demonstrate that the proposed capital expenditure for new facilities and equipment was indeed necessary, and not just a ruse to line the pockets of providers with "unjustified" profits. By 1980, all states except Louisiana had enacted a formal CON process.

Arizona CON

Arizona created its CON program in 1975 as part of a broader state health planning process under Public Law 93-641. This created five Health System Agencies (HSAs) across the state, a State Health Planning Board, and staff at the Arizona Department of Health Services (ADHS) to coordinate development of a state health plan built on the work of each of the HSAs and the State Board.[14]

Opposition set in immediately. Critics charged that the process was time-consuming, costly to implement (and litigate), relatively easy to "game," and allowed those providers already firmly planted in local markets to block the entry of new providers as unnecessary on a "strict need" basis.

"You want hospitals and doctors in new communities. They're textbook residents: educated, good jobs and they attract other people."

Developer

"Most developments are being initiated by homebuilders. They might say it's a planned community, but a lot of them aren't. Only a handful are thoughtfully planned beyond the immediate building requirements."

Developer

Other mitigating factors were the rise of managed care in the mid-70s and early 80s, and the election of Ronald Reagan in 1980 and an administration interested in fostering competitive, market-based approaches to all manner of social ills. Critics charged that the techniques of managed care used to control costs and improve quality effectively rendered the more regulatory-driven CON approach obsolete. Arizona legislators agreed and repealed the CON laws in 1985. The implementing Federal law was repealed in 1986, and it wasn't long before other states followed suit.

CON Today

Not everyone agrees that unfettered competition in an allegedly "free" marketplace is the best approach to ensuring access to affordable, high quality health care. CON programs still exist in 34 states (some of them at a minimal level), and a lively debate continues regarding their effectiveness. The accompanying map (Fig. 2) from the American Health Planning Association shows the distribution of CON programs across the country and the relative level of enforcement of each. Connecticut, Alaska, Vermont, Maine, Georgia, West Virginia and South Carolina retain the most rigorous enforcement of CON laws.

Figure 2: 2001 Relative Scope and Thresholds of CON Regulation

Weighted Range of Services Reviewed

| | no CON | | 0 - 9.9 | | 10.0 - 19.9 | | 20.0 - 44.0 |

Revised January 31, 2001.

Source: American Health Planning Association, January 2005.

What should be free and open competition, and what should be regulated, lies in the eye of the beholder:

Hospitals wish to be free of onerous rules and regulations governing their industry, but find good reason to support regulations barring physicians from referring patients to their own specialty facilities to compete for the most profitable lines of business.

Physicians seek relief from perceived heavy-handed regulatory practices of hospitals and health plans, but have no problems with seeking licensing and regulatory restrictions on other healthcare practitioners who want a piece of their business.

Health plans seek to escape the burden of idiosyncratic state insurance regulations governing product types and rate setting, unless of course those same regulations can be used to restrict new plans from entering the state and competing for a limited supply of low-risk members.

Everyone professes a desire to compete in open and free markets, but only if those markets operate on the fabled level playing field of fairness, non-discrimination, full disclosure and equal protection.

And how do we achieve a level playing field? Through legislation and regulation!

The Center for Studying Health System Change, reporting on 2004 field research from 12 U.S. urban communities (including Phoenix), stated that "...the path to a more efficient healthcare system is blocked by a *lack of effective competition* [our emphasis] among providers."[15]

One year later, the same researchers, reporting on the same communities, stated that amid the ongoing building boom and expansion of both inpatient and outpatient facilities, "hospitals and

The Right Kind of *Competition*

What is the right kind of competition in health care? According to a 2004 report by the Federal Trade Commission/Department of Justice, "A well functioning market maximizes consumer welfare when consumers make their own consumption decisions based on good information, clear preferences and appropriate incentives." They go on to add, however, that "...competition cannot eliminate the inherent uncertainties in health care, or the informational asymmetries among consumers, providers and payers."[17]

The FTC/DOJ report concludes that the healthcare market is "heavily and haphazardly regulated," which results in significant and costly barriers to market entry by new entities. Third party payers, including government, distort the market for both providers and consumers, as do agents acting on behalf of employers, plans and physicians, often with inadequate information and misaligned incentives.

To foster the right kind of competition, the report recommends:[18]

1. Private and government payers should improve incentives for providers to lower costs and enhance quality, and for consumers to seek lower prices and better quality.

2. States should decrease barriers to entry into provider markets.

3. Governments should reexamine the role of subsidies in healthcare markets in light of their inefficiencies and potential to distort competition.

4. Governments should not enact legislation to permit independent physicians to bargain collectively.

5. States should consider the potential costs and benefits of regulating pharmacy benefits manager transparency.

6. Governments should reconsider whether current mandates best serve their citizens' health needs (i.e., mandates are likely to reduce competition, restrict choice, raise costs and increase the number of uninsured).

The general premise of the FTC/DOJ report – formal health planning like state CON programs and attendant mandates and regulations strangles effective competition in health care – is itself grounded in another set of anti-trust and consumer protection laws and regulatory structure. The issue, then, is not a question of competition *or* regulation, but whether the regulatory structure encourages or impedes *effective* competition. Some type of regulatory framework is necessary in any case.

Color It Gray

Neither pro-market nor pro-regulatory advocates can point to absolutes for either approach. The U.S. healthcare system is a complex and highly fragmented arrangement of both private and public providers and payers, and its growth over the past century has proceeded apace through both market and regulatory means.

r Regulate?

physicians are *competing more broadly and intensely* [our emphasis] for profitable specialty services," which in turn was predicted to fuel rapidly rising costs and make health insurance unaffordable for increasing numbers of people.[16]

Ergo, there is more competition than ever in the healthcare industry, but it's the *wrong kind*.

The Right Kind of *Regulation*

In our Arizona Health Futures Policy Primer, *Controlling the Curve: Health Workforce Regulation in Arizona,*[19] we laid out the tangle of regulatory issues concerning the licensing and certification of 81 different healthcare practitioner groups in Arizona. Some of these seek more regulation, others seek less. But absolutely no one suggests that we do away with regulation completely.

The principal force of the regulatory argument in health-care planning is grounded in the conception of health care as a *social good*, as distinct from health care as a *commodity* under the "unfettered" competition conceptual framework. Someone who is wheeled into the emergency operating room at 2 a.m. with a heart attack is not a consumer shopping for a commodity but is a patient in terror who needs immediate medical treatment in order to live. In any society that deserves to be called civilized, we provide that treatment *at some basic level to all human beings regardless of their ability to pay for it.*[20]

Public opinion over the past 50 years has clearly sup-ported the conception of health care as a social good and a de facto right, as evidenced by the fact noted earlier that close to 50 percent of all healthcare costs in the U.S. are borne by *public* payers. Regulation of this social good under such approaches as CON is necessary to:

- Protect and enhance the critical healthcare infrastructure required to meet both expected and unexpected public needs.

- Increase effective competition by providing consumers and other purchasers with price and quality information.

- Improve economic and service quality benefits to the public.[21]

- Provide policymakers and communities with the tools necessary to compensate for weaknesses and deficiencies in the healthcare system.

- Provide policymakers and communities with tools to implement basic planning policies.[22]

"Health care regulation in this country can be characterized as a dense patchwork that is slow to adapt to change."

Institute of Medicine, *Crossing the Quality Chasm, 2001*

A black and white approach won't work in the gray world of health care.

As a nation, we have repeatedly professed allegiance to free markets and open competition while trying to protect those who are vulnerable and in need of care through tax-supported programs and services. Although we will continue to debate the relative weight between competition and regulation, our history suggests that health care will continue to be a mixed approach that requires mixed solutions.

Data Dilemmas

Regardless of whether we place greater emphasis on health care as an industry or as a social investment, planning at all levels (personal, institutional, city, region, state, national) depends on the gathering of relevant data and their subsequent interpretation and application in a (presumably) informed decision-making process.

We face a number of dilemmas when it comes to data. Chief among them:

- The dilemma of *source and credibility*. We gather similar data from different sources and get dissimilar results.

- The dilemma of *standards and reliability*. "Data Wars" result from competing standards of measurement and levels of reliability.

- The dilemma of *relevancy*. We're awash with data. Not all of it is relevant to the questions at hand.

- The dilemma of *timeliness*. By the time we get around to gathering and interpreting the data, it's often thought to be out of date.

- The dilemma of *projection*. Planning succeeds or fails on key assumptions about the future. It takes more than good data to get those right.

We take up some of these dilemmas as we proceed. Ambiguities abound.

Data Wars and Regional Planning

For a state growing as rapidly as Arizona, having access to timely and credible data is a *necessity*, and not a mere convenience.

Nowhere is this more apparent than in the "data wars" between the Arizona Department of Economic Security (DES) and local and regional planners in Maricopa and Pinal Counties. The latest official DES projections were published in February, 1997. Counties are required by law to use these official projections in their planning. They believe DES is not using the latest data, and is underestimating future population growth in the region, which impacts pressing decisions on freeways and other critical community infrastructure and services.

DES relies heavily on census data and (as of publication of this report) has yet to formally adopt projections using 2000 census data, although a number of drafts have been issued. Because of perceived limitations of this approach, the Arizona Joint Legislative Budget Committee and other groups such as the Maricopa Association of Governments (MAG) are using interim projections from ASU, UA and other sources, plus a tool called REMI – Regional Economic Models Incorporated. The resulting projections differ from the 1997 DES projections.

People tend to become invested in their tools. Over time, the received wisdom and "official" way of doing things can be slow to adapt to rapid change. We can have legitimate differences of opinion on the assumptions, data and methodologies of population projections, but there should be no disagreement about using credible and timely data in the first place.

We plan now because we must. Clarity emerges from practice, not practice from clarity.

Arizona's Growing Healthcare Industry

Questions:

- Will community hospitals eventually become obsolete?

- Is there a shortage of physicians and nurses?

- Are specialty hospitals a good thing?

- Will breakthroughs in medical research dramatically improve health?

- Are disparities in health ever justified?

- Will we ever have universal health insurance coverage?

- Will we be able to afford health care in the future?

The correct answer:

It depends.

What "it depends" on is the distribution of political and economic power that arises from competition along the market – regulatory continuum. Healthcare planning, whether it occurs in a health plan boardroom or a zoning and regulatory agency of a government body, is where the strategies and tactics to enhance that distribution for particular purposes are crafted. Access to relevant, reliable and timely data is critical to that process.

Figure 3: CY 2005 Arizona Health Care Expense by Service
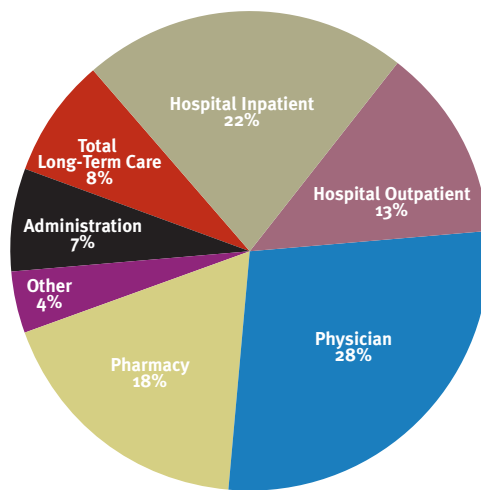
Total Dollars = $29.5 Billion

Source: Mercer Government Human Services Consulting.

NOTES

Estimates are based on a variety of sources, including the Centers for Medicare and Medicaid Services (CMS), the Centers for Disease Control and Prevention, the Kaiser Family Foundation, and other public and private data sources. They represent health care expenses paid by all payers: public, private health insurance, and individual out of pocket expenses. Data were reviewed for consistency and adjusted where necessary to avoid duplication. Some data were trended to produce estimates appropriate for calendar year 2005. Arizona-specific data were used where they were available, and where state-specific data were not available, appropriate actuarial adjustments were applied to regional or national data to produce estimates for Arizona. Percentages may not sum to 100% due to rounding.

Estimates for Long Term Care Services include Nursing Home expenses paid by all payers, and home health and personal care services paid by public and private third party payers. Estimates of home health and personal care services paid out of pocket were not readily available. The percentage of expenses allocated to LTC includes the administrative costs associated with providing managed LTC through AHCCCS.

With the exception of out of pocket costs associated with home health and personal care services, as noted above, all other out of pocket costs are included in the estimate and are allocated to the appropriate category of service.

Arizona HealthQuery (AzHQ) is an integrated health information "data warehouse" that combines *depersonalized* medical records from both public and private sources (Medicaid, hospitals, community health centers and clinics, behavioral health agencies, vital statistics, etc.) for purposes of conducting community- and population-based research and informing issues of health access, quality and cost. AzHQ currently contains over six million records and is growing.

Under the technical direction of the Center for Health Information and Research, part of the Seidman Research Institute at ASU's W.P. Carey School of Business, and principally funded by core operating grants from SLHI, AzHQ is a voluntary effort by public and private data partners to develop better community health planning tools.

As a planning tool, the uniqueness of AzHQ is that analysts can track patients and providers over time and across geographical areas to inform issues of access, quality and cost. When this information is combined with clinical and epidemiological information extracted from the database, it is possible to develop more complete community health assessments and investigate a broad range of private and public health issues.

A great deal of money rides on the planning process. Arizona healthcare expenditures alone are estimated to approach almost $30 billion in 2005 (see Fig. 3).[23] To ensure that they are placing intelligent bets on the future, industry players like hospitals, health plans, physician groups and ancillary services access not only public data (census, national surveys, etc.) but also proprietary data gathered and packaged by a myriad of data analytic businesses. The planning processes of the major stakeholders are themselves proprietary and closely guarded, lest their competitors get wind of their strategies and counter them with their own.

On the other hand, planning bodies in the public realm, which are required to conduct their business under full disclosure with public funds and active citizen engagement, often have restricted planning budgets and therefore limited access to targeted, proprietary data sets and analytical tools. This varies by jurisdiction, of course, but one of the common criticisms of health planners, especially at the state level, is that they collect all sorts of data but don't do enough by way of analysis and dissemination to ensure timely, effective public access and application to planning issues at hand.

When it comes to tracking the development of the healthcare industry in a rapidly growing state like Arizona, then, a growing number of planning officials advocate the development of effective bridging mechanisms between public and private interests to merge various data sources and develop tools and services that all sectors can access to more effectively plan for the future.

> ## "The towns say,
> *'you'll be paying us taxes for the schools, so you have to work together with the schools to fit into our general plan.'*
> ## There is no taxing or planning relationship with hospitals, so developers don't have to work with them – although it's a good thing if they do."
>
> Developer

Planning for *Arizona Hospitals*

It's been 20 years since CON regulations, instituted primarily to control hospital capital expenditures and reduce duplication, were eliminated in Arizona. As it turned out, market forces have shaped the development of hospitals with far greater force and precision than CON presumably would have.[24]

Consider staffed hospital beds. As Table 1 indicates, population growth has outstripped the supply of staffed beds, going from 3.2 beds per 1,000 population in 1985 to 1.9 beds in 2003 – a 41% decline. Projected to 2008, it stays relatively flat at 2 staffed beds per 1,000 population.[25]

Table 2 indicates the national picture, with hospital beds declining across the U.S. from 3.7/1,000 in 1990 to 2.8/1,000 in 2003 – a 24% decline. In Arizona – and in the west generally – the decline for the same period is around 33%.

Table 1: Arizona Staffed Beds, Population and Beds/1,000 Population

YEARS	1985	2003	2008 (PROJECTED)
Total Staffed Beds	10,316	10,801	13,101
Population	3,183,539	5,579,222	6,320,874
Beds/1,000 Population	3.2	1.9	2.0

Source: American Hospital Association, US Census Bureau, Arizona Hospital and Healthcare Association (projections).

Table 2: Hospital Beds/1,0000 Population

	1990	2000	2002	2003
US	3.7	2.9	2.8	2.8
Arizona	2.7	2.1	2.0	1.9
California	2.7	2.1	2.1	2.1
Nevada	2.8	1.9	2.1	1.9
New Mexico	2.8	1.9	1.9	2.0
Utah	2.6	1.9	1.9	1.9

Source: American Hospital Association

The Planning Curve

Is two staffed beds per 1,000 population the optimal number? We don't know. One might approach it in one of two ways:

- On the one hand, Arizona and other western states are *behind* the planning curve and trying to play catch up with the addition of medical facilities and attendant professional staffing to meet the needs of a fast-growing population. We will need more hospital beds in the future.

- On the other hand, Arizona and other western states are *ahead* of the planning curve by shifting resources to free-standing ambulatory suites, just-in-time medical facilities and so-called "specialty hospitals" that have limited beds for certain kinds of (highly profitable) procedures. We will need *fewer traditional* hospital beds in the future, but perhaps more beds in new institutional configurations and settings.

Start with different assumptions, and you reach different conclusions.

"No one will build now if they can't show they can cover the costs before the hospital is built."

Hospital CEO

Location, Location, Location

The mantra for hospital planners and real estate developers is everywhere the same: location, location, location. Like all commercial developers, medical planners site facilities by following the purchase and development of large tracts of land, projected population patterns, the availability of sites close to freeways and major arteries, accessible utilities and other factors.

Put all these together, and planners come up with relatively few good sites for developing hospitals that have easy access, a closed campus for security, ample parking in the middle of a growing and relatively affluent population, and all the amenities required for a successful service business. That's why it's not unusual to see new hospitals being built within close proximity to each other.

An Uncertain Future

Currently, Arizona hospital systems in the Phoenix urban area, especially the larger ones with access to capital, are riding a building boom and following the red roof tiles of population growth in a pattern extending west in Maricopa County and southeast into Pinal County. In addition to adding beds in new locations, hospitals are also remodeling, upgrading existing facilities, investing in technology and constructing new medical office buildings. When these are clustered with existing or planned medical research facilities and teaching facilities, such as those being planned in downtown Phoenix, the oft-noted and imitated *medical alley* phenomenon occurs.

But hospital planners face an uncertain future. A moratorium on the construction of specialty hospitals is in effect until the end of 2005, but if it is lifted, community hospitals could find some of their most profitable specialty services heading out the door, thus losing the ability to cross subsidize necessary but less profitable community health services.

Other uncertainties abound. In addition to the tenuous future of hospital-physician relationships,[26] the problem of increased demand for high tech services from consumers used to getting their way, coupled with pressure on public and private reimbursement rates, gives hospital executives plenty of things to keep them up at night.

But that's normal. You plan for the future, but you have to live in today.

Planners Speak

Here's a representative sampling of what hospital planners themselves had to say:

"Competition isn't the chief problem, because there is so much growth. Hospitals have to be at the table. The issue is growing your market share, since other medical facilities will be at the table, too."

"It's easier to establish a hospital in a new community than to build in an existing community. Ideally, you can include it in the master plan and locate it within a mile or so of the new high school."

"Competition is over some premier spot on the freeway. I would prefer to look at larger issues, but it ends up being this."

Lessons From *Banner Estrella*

To illustrate just how tightly wound hospital planning can be, consider lessons learned from the Banner Estrella Medical Center, which opened in January 2005 to serve the needs of rapidly growing communities in the west valley.

Designed as a "Hospital for the Future," the 172-bed facility is a beautiful, high-tech/high touch state-of-the-art complex. After being open for six months, however, planners realized they had underestimated just how busy the 24/7 emergency center was going to be, and overestimated inpatient volume. This had implications for cash flow and overall system financial performance.

The trick is to jump on the planning curve at the exact point where services pay their own way. The overflow in the emergency room spoke volumes about consumer preferences and perceived need for just-in-time medical services in a Circle K world. The slow start-up in inpatient admissions and physician referrals spoke volumes about not being too far out in front of physicians' willingness and ability to engage sophisticated information and system flow technology, as well as simply finding enough physicians in the first place who are interested in forming long term relationships with the new hospital.

It's an open question whether there is any significant service differentiation between hospitals in the current healthcare environment. Regardless, the higher the level of capital investment, the smaller the window for risk tolerance. Get behind, and you miss opportunities for future returns. Get too far out, and you have to buy your own lunch while you wait for others to catch up.

"Phoenix is too developed. You almost have to go to individual communities and master communities. You get a rhythm. It's not a bad thing. You can get a facility in place with consideration of space needed so you aren't trying to fix it later."

And this from a county planner:

"You need three things to develop a hospital: population, physicians and payers. The physician shortage is a huge problem. They have other options today than hospitals. Public reimbursement is being ratcheted lower. You have to wonder about the future."

"Hospitals are a solution in search of a problem. They are fixed facilities that are too costly and need ever greater levels of reimbursement. Their feet are in a concrete model. It's a model that is destined for failure."
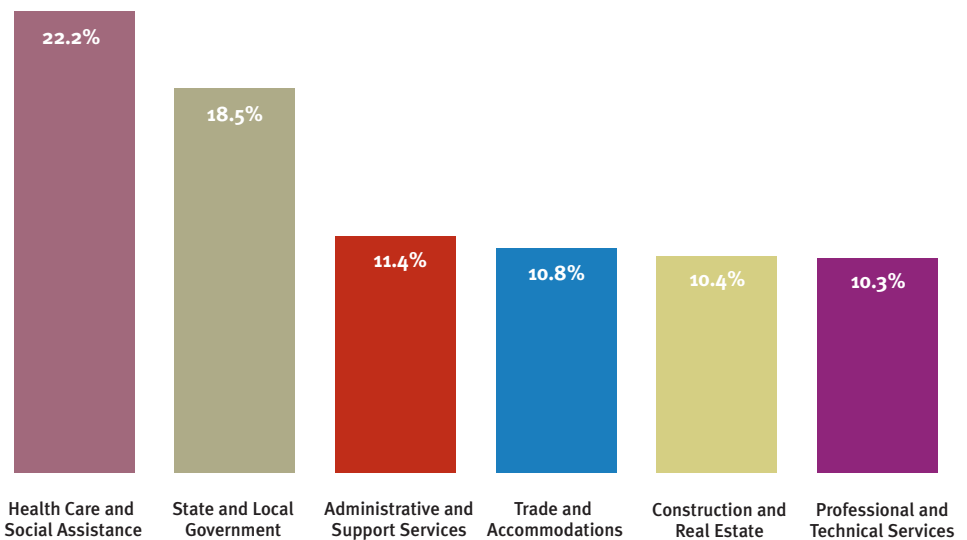
Health Workforce
Planning

Hospital facilities planning is a walk in the park compared to the complexities of health workforce planning. Building a new facility is one challenge, staffing it is quite another.

Much of the "buzz" in Arizona planning circles these days is focused on health care as a growing industry sector and an economic driver that can provide communities, regions and states with a "leg up" in the emerging global technology, information and knowledge economy. In terms of workforce, certainly, trends are upward: Nine out of the 20 fastest growing occupations in the U.S. are in the healthcare sector, with a 29% growth rate projected in contrast to a 14% increase for non-healthcare occupations between 2002-2012.[27] Fig. 4 from the Maricopa Association of Governments (MAG) confirms this projected growth and relative dominance of healthcare occupations in Arizona for the 2000-2030 time period. Most of this is projected to be driven by increased demand.

Figure 4: Top Six Industries by Share of New Job Growth
Arizona, 2000-2030

Health Care and Social Assistance	State and Local Government	Administrative and Support Services	Trade and Accommodations	Construction and Real Estate	Professional and Technical Services
22.2%	18.5%	11.4%	10.8%	10.4%	10.3%

Source: Maricopa Association of Governments

Somewhere between 200,000 – 265,000 persons were employed in the Arizona healthcare industry in 2003, representing between 11 – 14 percent of the state's employment, depending on what categories are counted.[28] Numerous studies have documented physician and nurse shortages, among other health occupations, and have made recommendations related to training, recruitment and retention.[29]

For health planning purposes, however, the issues have less to do with the sheer numbers of professionals available than they do with the *distribution and concentration* of those professionals across the *scope of practice* that fits with particular institutional and community needs. This raises a different set of questions:

In addition to…

Q: **What can we do to increase the supply of physicians, nurses and other healthcare professionals in Arizona?**

A: Build a medical college in Phoenix, put more resources into nurse training programs, improve working conditions, increase retention, etc.

We might ask…

Q: **How can we reconfigure professional scope of practice to harness emerging economic, technological and social trends and meet specific community needs?**

A: Focus on new modes of training, licensure and team collaboration models. See Fig. 5 for an example.

Figure 5: Workforce Reengineering: Plan Differently

We could need fewer, not more, physicians in the future. It depends on planning for a different health practice environment.

Sample Intermediate Term Process Reengineering
Rebuilt Ophthalmology Visit Results

BEFORE	AFTER
Traditional way, more money	Innovation, less money
TRADITIONAL MODEL	**ENGINEERED MODEL**
1 assistant/MD	3 assistants/MD
Staff poorly trained	Staff highly trained
2 rooms/MD	4 rooms/MD
22 patients/day/MD	50 patients/day/MD
3-month wait for consult	No wait for consult
Patient satisfaction = 63%	Patient satisfaction = 85%
Provider satisfaction = 90%	Provider satisfaction = 94%
$60 per visit	$43 per visit
$22.31 per member/per year	$14.91 per member/per year

Source: Arnie Milstein, MD, MPH, Mercer Human Resource Consulting

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For a hospital that is considering expanding into a new community, the immediate concern is not the total health workforce pool available in the region, which is not likely to change significantly in the near term. It is rather the recruitment and retention of existing health professionals in those areas that are immediately critical to a successful launch. Depending on the community and the scope of the proposed facility, these are usually staff physicians and nurses, emergency services, lab and tech services and, most importantly, a reliable pipeline to specialty service groups that will refer their patients to the facility and staff the most profitable operating room (OR) procedures.

"Hospitals are usually designed for professionals, not patients. Each professional group designs its own things. We are trying to get optimum function out of a sub-optimum plan. This will change, though."

Hospital CEO

Amateurs Imitate, Professionals Steal

This is where workforce planning gets dicey. Physicians today have more options when it comes to deciding where, and how, to practice their craft. Some choose to practice in free-standing ambulatory surgical facilities and have more control over scheduling and work hours. Others prefer staff positions and a defined schedule; increasing numbers prefer not to take demanding on-call responsibilities in emergency rooms or, if they do, demand a premium price.

As a result, the workforce planning exercise often comes down to a recruiting game: Find the best physicians in the necessary specialties and steal them from the competition. This is normal "market" behavior in most industries, but in health care – considered here as a social investment – it can have negative repercussions for community health, especially in low-income communities, as highly trained specialists gravitate to more lucrative, less hassle upscale markets and leave often disenfranchised minority and low income communities behind.[30]

Figures 6 and 7 indicate shifts in the distribution of primary care (PCP) and specialty (non-PCP) physicians in Maricopa County over the 2000-2005 period. These are distributed by zip code. Not surprisingly, they indicate a shift away from older, low income areas and toward higher income areas and the growing "edges" of the metro region.

Figure 6: Change in PCPs from 2000-2005, Maricopa County
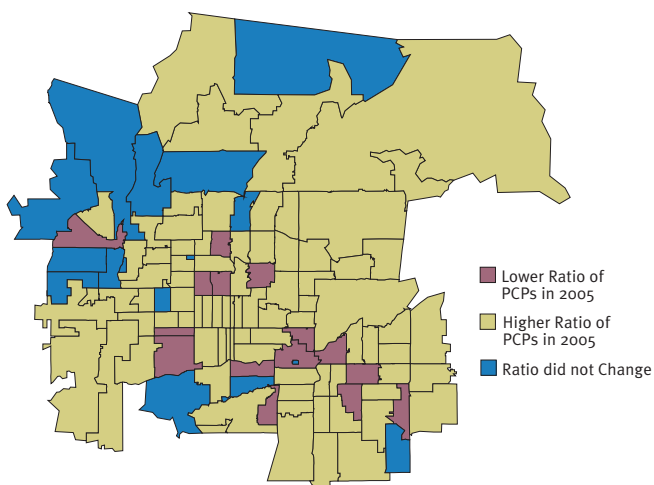
Lower Ratio of PCPs in 2005

Higher Ratio of PCPs in 2005

Ratio did not Change

Source: Center for Health Information and Research, ASU Seidman Research Institute, W.P. Carey School of Business.

Figure 7: Change in Non-PCPs from 2000-2005, Maricopa County

Lower Ratio of Non-PCPs in 2005

Higher Ratio of Non-PCPs in 2005

Ratio did not Change

Source: Center for Health Information and Research, ASU Seidman Research Institute, W.P. Carey School of Business.

We Lack Good Supply Models

But maps like these do not begin to tell the full story. The fact of the matter is that we have not yet been able to develop robust models of physician supply because of the social, economic and cultural complexities inherent in training, location and referral patterns.

Straight ahead workforce projections based on linear population growth trends don't necessarily work (see Table 3). One has to factor in such vagaries as reimbursement rate projections, access to lab and technology facilities, the positioning of general and specialty hospital facilities, lifestyle choices, the projected weight of malpractice insurance and administrative costs, general economic conditions, consumer demand – and that's just for starters. Panels of experts have been well off the mark in attempting to forecast physician supply in the past, and there is no reason to assume they will not be off the mark in the future, especially the farther out in the future they go.

So where does this leave health workforce planning?

Generally, there are good reasons to allow market forces to work in the supply and distribution of physicians, nurses and other health professionals. The more critical problem, however, is maintaining a core safety net infrastructure of trauma, emergency, general and specialty services for individuals and communities that, for reasons often beyond their control, lack access to the "bounties" of market forces (such as adequate health insurance). This is a role for intelligent policy, legislation and broad-based public support. It is not a role for market forces alone.

There are also good reasons to step outside the box and imagine ways to creatively reconfigure training and practice patterns to encourage greater collaboration and integration across institutional and community fault lines. The biggest bang for the buck in medical and scientific research today takes place across institutional and disciplinary boundaries, which are increasingly being broken down by advances in the tools and investigative methods of science. We suspect the same is destined to be true for the clinical practice of medicine as well.

Table 3: What's Wrong With These Numbers?

Selected Cities	Population			PCPs per 10,000			Specialists per 10,000		
	2000	2005	2010	2000	2005	2010	2000	2005	2010
Avondale	36,395	46,672	59,851	1.92	4.50	18.87	0	2.57	–
Buckeye	8,615	16,227	30,564	2.32	3.08	6.07	3.48	1.23	0.46
Cave Creek	3,765	4,625	5,681	37.18	36.76	36.91	37.18	58.38	111.38
Chandler	178,655	193,412	209,388	4.81	7.34	12.51	5.99	9.77	18.41
Gila Bend	1,990	2,870	4,140	5.03	3.48	2.42	0	0	0
Gilbert	111,600	130,636	152,919	6.99	7.04	7.18	4.03	7.65	19.52
Glendale	219,625	233,123	247,450	7.06	10.72	18.01	11.34	18.87	36.30
Mesa	401,180	434,318	470,193	6.93	8.73	11.45	11.72	17.29	28.09
Paradise Valley	13,725	14,072	14,427	16.03	25.58	45.52	50.27	68.22	96.99
Phoenix	1.33m	1.44m	1.57m	10.13	14.14	21.30	18.93	25.90	37.96
Scottsdale	204,195	216,744	230,065	18.27	29.16	52.63	39.47	69.94	148.33
Surprise	32,460	49,260	74,756	4.00	2.03	1.06	3.08	4.06	6.66
Tempe	158,825	164,462	170,300	8.06	9.79	12.16	11.27	15.02	20.92

Source: Center for Health Information and Research, ASU Seidman Research Institute, W.P. Carey School of Business.

These figures, extrapolated from standard linear population projections and actual PCP and specialist growth/location over the past five years in selected Valley region cities, illustrate some of the problems with looking just at physician "per population" figures within legal jurisdictions that have little practical significance.

- Lots of doctors live and practice in Paradise Valley and Scottsdale. We're shocked to learn this.

- PCPs are apparently leaving Gila Bend, and specialists are not projected to locate there. That will likely change as medical facilities continue to expand south out of Phoenix.

- Specialists who don't plan to go to Gila Bend must be going to Avondale, which has such a fantastic growth projection in 2010 that it's meaningless to calculate it.

- Buckeye is growing rapidly but is projected to trail badly in number of physicians. Maybe, but we wouldn't bet on it.

Linear projections such as these are not useful for health planning purposes. One might argue that standard measures of physician workforce supply, such as the number of physicians per 100,000 population (Arizona is well below the national average: 207/100,000 compared to 283/100,000 in the U.S.) don't tell us anything particularly useful, either. If we build a medical college in Phoenix and end up graduating physicians who choose to practice dermatology and plastic surgery in Scottsdale (and refuse to take emergency call), it's hard to conclude that community health will be better off.

Numbers are only a thin introduction to the health planning story. If they were the whole story, we would expect to see better health outcomes in places that have more healthcare professionals performing more procedures. This is not necessarily the case.[31]

No, the substance lies in practice patterns, cultural and lifestyle changes, workforce productivity, the reimbursement climate and – most of all – consumer demand in the face of rising costs and disparities in access and outcomes.

We return to the same question again and again: *Planning for what?*

Health Planning
and the *Built Environment*

An Emerging Issue

The relationship between the built environment and health has long been noted, but it has only recently emerged as a critical planning issue at all levels because of the rapid urbanization and "colonization" of natural space, and a growing body of evidence that connects the dots between that development and health issues such as obesity, asthma, diabetes, depression, cardiovascular disease, injury and others.[32]

In Arizona, planning officials, health professionals and citizens' groups are coming together to address the impact of the built environment on individual and community health in a state characterized by rapid urban growth in a desert backdrop with high summer temperatures, mountain preserves, post World War II construction, long auto commutes, large lots, sprawling development and master planned communities.

Many believe that we should let market forces determine the nature and shape of the built environment. Others aren't so sure. But wherever community health planning falls on the regulatory-competition continuum, there is general agreement that we need to come together across interests, disciplines and the boundaries of economics, geography and culture to address these issues *together*.

The Movements

A proliferation of interdisciplinary movements and venues around the Built Environment theme have emerged over the past several decades. Some of the more prominent:

New Urbanism

Planners, architects and developers who advocate a return to dense, mixed use communities with a town center and large-scale pedestrian access. An emphasis on social connectedness and "place."

Walkable Communities

Homebuilders surveys repeatedly confirm that citizens desire to live in communities where they can walk to stores, schools and parks. Planning for walkable, physically active communities is on the rise.

Smart Growth

Principles to enhance neighborhood livability, decrease traffic congestion, encourage infill development and historic preservation, reduce divisions based on income and race, preserve open space, increase density while reducing rates of sprawl. A tall order for metro areas like Phoenix that grow outward like a "balloon" in search of cheap, undeveloped land and lower prices, but smart growth principles are very much on the minds of citizens nonetheless. The Governor's Growing Smarter Oversight Council, with citizen input, is developing guiding principles to help shape Arizona's future.[33]

Community Development Corporations

Community Development Corporations (CDCs) are nonprofit organizations that revitalize low income neighborhoods by focusing on housing, jobs and social services. Issues concerning the Built Environment – parks, recreational facilities, walkability, medical facilities – are increasing themes in their work.[35]

Public Interest Organizations

Public Interest Organizations are generally nonprofit associations of business leaders, community activists, professional groups and others that come together to address issues of community health, environment and "livability" in various regions around the country. They often serve as forums for a discussion of striking the right balance between economic development and sustainable, healthy environments. Valley Forward, a metro Phoenix public interest organization, is one example.[36]

Government Initiatives

State health initiatives like *Arizona 2010* set goals in prevention and active citizen participation in individual and community health issues.[37] Nationally, the U.S. Centers for Disease Control has launched *Designing and Building Healthy Places* to promote Built Environment principles.[38] The National Institute of Environmental Health Sciences has embarked upon a Built Environment program.[39] These are among others at national, state and local levels.

Planning *Tools*

Before we turn to emerging approaches to health planning, we briefly summarize two essential planning tools utilized by American city and county planning everywhere: policy statements and regulations.

Policy Statements

Policy statements are known commonly as the *general plan for municipalities* and the *comprehensive plan for counties*, and have laid the foundation for planning since the late 1800s. Although the nomenclature varies by jurisdiction, all share common characteristics:

- **THEY FUNDAMENTALLY GUIDE THE PHYSICAL DEVELOPMENT OF LAND.** They establish how, where and when development and redevelopment should occur.

- **THEY ARE COMPREHENSIVE IN NATURE.** Depending on scope, they either may or must address land use, open space, growth areas, environment and cost of development, water resources, natural resource conservation, recreation, public facilities, housing redevelopment and safety.

- **THEY ARE LONG RANGE.** Plans typically reflect periods ranging from 5-20 years, with updates as necessary.

- **THEY REPRESENT POLICY STATEMENTS ABOUT COMMUNITY CHARACTER,** including statements reflecting citizen desires and needs with respect to development and the type, quantity and quality of expected growth.

ARIZONA POLICY STATEMENTS

- In 1973, the state of Arizona began to require that cities, towns and counties develop at least a minimal plan for land use.[40] Mandatory elements included housing, transportation systems, environmental preservation and urban redevelopment. Health and health care were not included.

- In 1998, Arizona voters approved the *Growing Smarter Act*,[41] which increased the number and type of compulsory infrastructure elements in county comprehensive plans and municipal general plans. New components included a plan for the financial costs of development, water resources, school capacity, sanitation and open space conservation. Health and health care were not included.

- In 2000, the Arizona legislature enacted *Growing Smarter Plus*,[42] which required fast-growing cities to incorporate public participation and obtain voter approval of general plans at least once every decade. Growing Smarter Plus also required local governments to work together and share information for planning purposes "to promote the health, safety, convenience and general welfare of the public" – with no mention of how this was to be achieved or funded.

- The Growing Smarter/Growing Smarter Plus legislation requires that zoning be in conformance with the general plan. Counties have the authority to plan and zone and are required to follow a process similar to that of cities and towns, except that the latter are required to submit their plans for voter approval, while counties are not.

Regulation

There are three primary regulatory mechanisms for land use planning: zoning ordinances, subdivision regulations and building codes.

- **ZONING ORDINANCES** – Zoning ordinances were initially established to alleviate health and safety concerns associated with overcrowded cities. They divide a community into categories of land use (e.g., residential, commercial, industrial) and mandate standards for developing land parcels. Zoning ordinances are tools of "police power" – government has the legal right to regulate land use in order to protect public health, safety and welfare.

- **SUBDIVISION REGULATIONS** – Subdivision regulations – also a tool of police power – control how land is developed and empower communities to ensure that new developments meet community standards and expectations, including public health infrastructure such as sewers, septic systems and emergency access. Many subdivision regulations stipulate that subdivision design be compatible with guidelines and requirements established in general/comprehensive plans and zoning ordinances.

- **BUILDING CODES** – Building codes establish requirements for the design and construction of structures (e.g., building permits, electrical and plumbing permits, etc.). While building codes generally follow industry standards, they bear no direct relationship with either zoning ordinances or general/comprehensive plans.
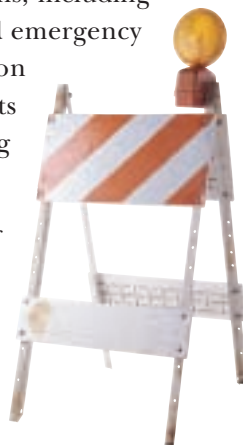
"Health planning should be done at the community level, not statewide. You need a core, an anchor. You need someone with community development skills. Those aren't always healthcare people. The stuff you want done at the state level are trauma services, disaster planning, things like that."

Hospital CEO, Tucson

Where Does Health Planning *Fit In*?

For the most part, it doesn't. Ever since Arizona's health planning and CON law was repealed in 1985, no other health planning functions have been added to health statutes or city, town and county planning laws. Unlike planning for schools, which is clearly delineated, planning for health services and the general health needs of a community's citizens is for all practical purposes nonexistent in the organized land use planning process.

That is not to say that health is not addressed at all:

- Specific state laws govern health care practitioners through education and licensing requirements, the licensing of healthcare facilities and required state and county public health and environmental programs. Each is distinct, however, with no required coordination or collaborative process to plan for the public's health between or among the regulating agencies, those regulated, or communities themselves.

- While state agencies must plan for programs they administer and provide plans for how they will apply funds from federal, state and private sources, there is no over-arching requirement or mechanism for linking these programs to city, county or private health services. It occurs in some instances, but there is no organized effort to ensure that it occurs consistently.

- The Arizona Department of Health Services (ADHS) licenses and certifies medical facilities and healthcare institutions, but does not inquire into the need for, or planning aspect of, those facilities. Such issues are generally part of local community planning bodies, and it is through those processes that hospitals and other facilities may be required to seek public input and comment on proposed plans. State licensure requirements themselves are primarily concerned with technical specifications such as architectural structure, fire codes and the like.

- ADHS requires medical and health facilities to submit certain data on resources and use (hospital discharge data, number of beds, list of medical staff specialties, etc.), but this is not necessarily related to the need for, or appropriateness of, health services in specific communities. This is determined by competition among providers in the healthcare market with minimal input from communities (except for regulatory compliance), unless providers choose to seek such input – which they often do.

The state has delegation agreements with counties to regulate health and safety issues related to the built environment (sewers, septic systems, etc.).

THE MONEY ISSUE

Planning costs money, and officials go to some length to ensure that adequate revenue sources are in place. The amount and type of taxes and fees assessed vary considerably among local governments. Most rely on such income streams as property taxes, sales and income taxes, bonds (both general obligation and revenue); fees, fines and penalties; federal and state grants, and impact fees for capital facilities in new developments.

The federal Department of Homeland Security is a relatively recent source of funding for a myriad of state and local government planning efforts, including those pertaining to health. But no designated funding source exists separately for health planning. That is one of the principal reasons it often doesn't get done.

As necessary as licensing, credentialing and regulatory oversight are to the health planning process, they leave the heavy lifting of community health need assessment and building the bridges between public and private interests to a fragmented collection of industry- and advocacy-driven groups that are often more immediately focused on their own agendas than on a collaborative planning process that, frankly, takes time to develop the necessary trust to move forward.

In the future, health planning will need to be more fully integrated into public-private community partnerships in order to be successful. This is where we turn next.

"We approach planning
as a market- and community-driven process.
All senior executives meet with the community.
We get plenty of feedback."
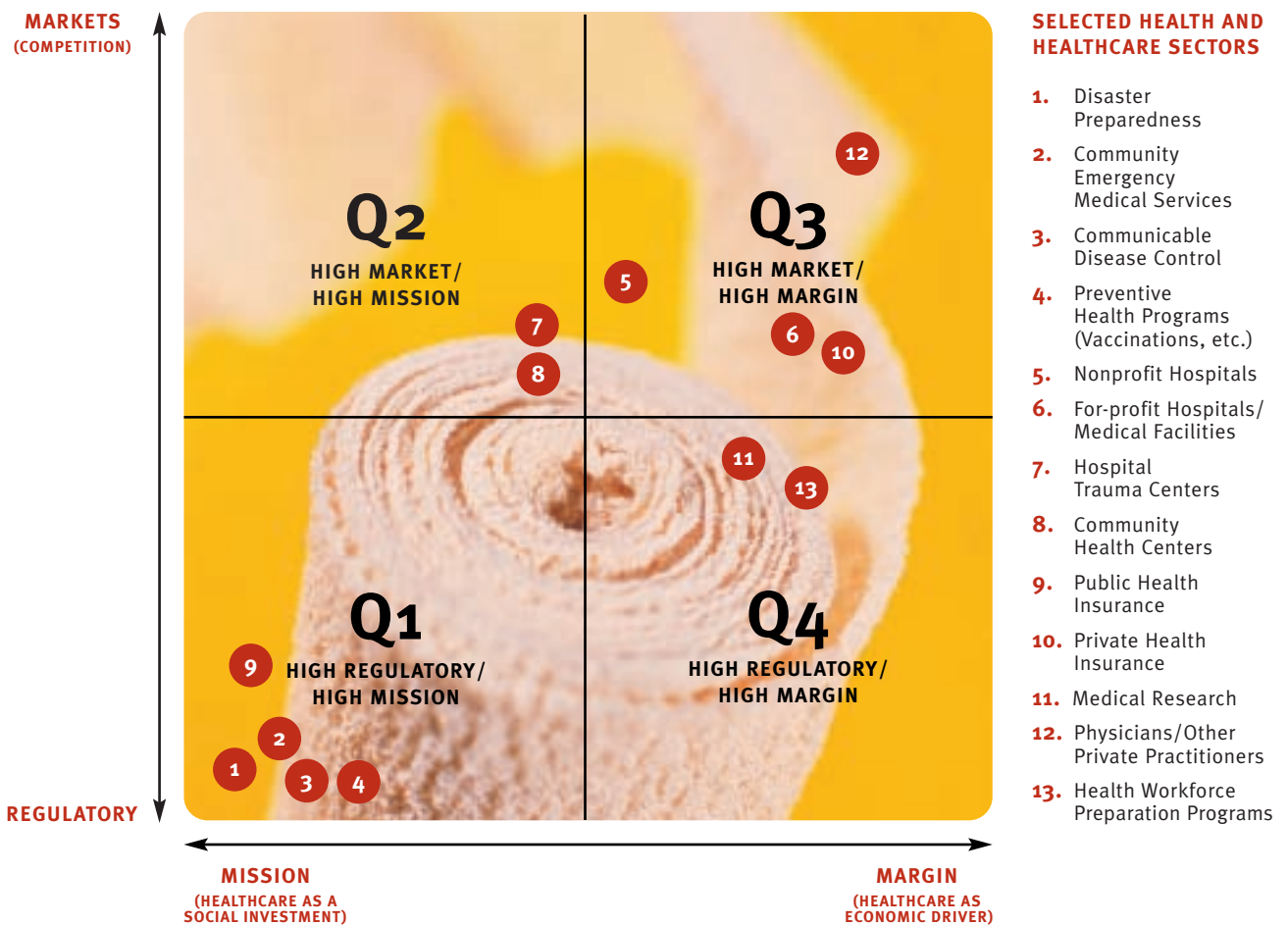
Hospital CEO, Tucson

The Dance: *Part I*

The Dance – the planning process itself – can be described in multiple ways, none of which is a good substitute for actually learning by dancing. To prepare for that happy day when we all dance together to the same music, we sketch out two planning frames:

- the **traditional** (Part I); and

- the **emerging** (Part II).

Figure 8: A *Health Planning* Matrix

MARKETS (COMPETITION)

Q2
HIGH MARKET/
HIGH MISSION

Q3
HIGH MARKET/
HIGH MARGIN

Q1
HIGH REGULATORY/
HIGH MISSION

Q4
HIGH REGULATORY/
HIGH MARGIN

REGULATORY

MISSION
(HEALTHCARE AS A
SOCIAL INVESTMENT)

MARGIN
(HEALTHCARE AS
ECONOMIC DRIVER)

SELECTED HEALTH AND HEALTHCARE SECTORS

1. Disaster Preparedness
2. Community Emergency Medical Services
3. Communicable Disease Control
4. Preventive Health Programs (Vaccinations, etc.)
5. Nonprofit Hospitals
6. For-profit Hospitals/ Medical Facilities
7. Hospital Trauma Centers
8. Community Health Centers
9. Public Health Insurance
10. Private Health Insurance
11. Medical Research
12. Physicians/Other Private Practitioners
13. Health Workforce Preparation Programs

The Health Planning Matrix: A Conceptual Model

A *Health Planning Matrix* (Fig. 8) frames the twin poles we have discussed up to this point: the *regulatory – market* continuum and the *mission – margin* continuum. This results in four quadrants:

Q1 high regulatory/high mission
Q2 high market/high mission
Q3 high market/high margin
Q4 high regulatory/ high margin

These are hardly discrete quadrants. Placing various health and healthcare sectors along a specific gradient within one of the quadrants is a question of judgment, and reasonable people can be expected to disagree where a particular sector/institution/issue should be located at any point in time, and under what conditions.

But that is precisely the point. The function of the matrix is *heuristic.* Locating a health sector or issue within the continuum stimulates a discussion of the *balance* between regulation and competition, social investment and economic performance in the planning process itself: who should be at the table, the questions to be addressed, the dimensions of relevant information, the degree to which the process is public or private, and other planning issues.

Preliminary Observations:

- The sectors and issues in Q1 – disaster preparedness, community emergency services, communicable disease control, preventive (public) health programs and public health insurance – plan in a public and regulated environment for the health and safety of all citizens.

- The example sectors in Q2 – hospital trauma centers and community health centers – have crept up the regulatory-market continuum over time as related parts of the healthcare industry force competition for labor, capital and consumers. The degree of "quadrant drift," however, can vary widely among institutions. Planning in Q2 is more mission-driven (public, social investment), but it retains elements of industry planning (markets, margins) as well.

- The example sectors in Q3 – nonprofit hospitals, for-profit hospitals/medical facilities, private health insurance and physicians/other private practitioners – fall within the "healthcare-as-an-industry" continuum. One could distinguish further between investor-owned specialty facilities, public hospitals, variations in community nonprofit hospitals, types of health professional groups, etc., some of which could be placed in different quadrants (Q1,Q2) and follow more public, community-based approaches to health planning.

- The examples in Q4 – medical research and health workforce preparation programs – could just as well have fallen into Q3, but parts of these sectors continue to be highly regulated.

Some degree of regulatory control exists in all four quadrants, but from a planning perspective, it is most pronounced in Q1, which is usually a structured, public process. Public input and participation also occur in all sectors, but in agencies and sectors higher on the market and margin continuum, that participation is often in the form of marketing/public relations activities.

The Traditional *Planning Continuum*

Historically, planning has moved between the extremes of "laissez-faire" and "total planning."[43] Where one is along the continuum varies, depending on what aspect of health and health care is examined at any particular time.

LAISSEZ-FAIRE
No planning, with the market unfettered and little concern for how things change or their side effects.

INCREMENTALISM/ PROBLEM SOLUTION
Minimal planning, with remedies applied haphazardly when situations become intolerable. Only those highly vested in the process participate.

ALLOCATIVE
Minimal planning for present/near future, involving groups in power that seek to avoid new problems or to address current problems through resource allocation.

GUIDED INCREMENTALISM/ PROBLEM SOLVING
Planning for present or future by involving groups relevant to the issue. Analyzing problems, designing interventions and allocating resources.

Towards an Effective Community-Based Emergency Management Planning Process

The lessons from Hurricane Katrina and the Gulf Coast disaster underscore the importance of planning for effective emergency preparedness. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) recently issued the step-by-step guide, *Standing Together: An Emergency Planning Guide for America's Communities*, to guide communities to both prepare for and successfully respond to major local and regional emergencies. The essential components:[44]

- Define the community
- Identify and establish an emergency management preparedness and response team
- Determine the risks and hazards the community faces
- Set goals for preparedness and response planning
- Determine current capacities and capabilities
- Develop the integrated plan
- Ensure thorough communication planning
- Ensure thorough mental health planning
- Ensure planning related to vulnerable populations
- Identify, cultivate, and sustain funding sources
- Train, exercise, and drill collaboratively
- Critique and improve the integrated community plan
- Sustain collaboration, communication, and coordination

It was gratifying to see how well Arizona's public, private and nonprofit sectors came together to quickly respond to the needs of Katrina survivors sent to the state. We know how to do effective emergency and health planning. The challenge is to build on that knowledge and relationships to meet the health needs of our most vulnerable populations on a daily basis.

EXPLOITIVE
Planning for the future by groups in power and other relevant participants who take advantage of trends and allocate resources – but without addressing other emerging problems.

EXPLORATIVE
Planning for the future by exploring alternate scenarios and trends with all relevant participants. Designing a desired, feasible future based on current and predicted community resources and values.

NORMATIVE
Planning for the future with all relevant participants by deciding on a desired future and applying resources to impact trends with current or predicted values, or by developing a new value set with the community.

TOTAL PLANNING
Planning by small groups in power and planners/technologists for all activities present and future. A comprehensive process to define the desired future and to develop goals, strategies and the resources necessary to provide a sense of controlled destiny.

"Economics drives everything.

Hospitals are doing their part for communities, but more and more employers don't think they have to provide health insurance, and the legislature doesn't seem compassionate.

There's not a lot of public leadership on these issues."

Hospital CEO

A Tale of Two Plans

Consider Arizona health planning efforts in two areas – perinatal care and trauma services.[45] Both would likely be considered examples of the guided incrementalism/problem solving approach to planning:

PERINATAL CARE	TRAUMA SERVICES
TIMING. Statewide planning for perinatal care began in the mid-1960s, when the healthcare "industry" was less developed, and there was greater cooperation between public and private stakeholders.	**TIMING.** Statewide planning efforts for trauma services have been underway since the mid-1990s, a time of increased competition, consolidation and fiscal pressure among providers and budget pressures at the state level.
PROCESS. The Arizona Perinatal Trust began as a voluntary, collaborative effort between a broad range of stakeholders. Federal and private grants to establish a regional perinatal system were the impetus. Trust and cooperation have been developed over time.	**PROCESS.** State officials took the lead in a voluntary planning process that recently has begun to move off the dime. The provider community remains competitive, but leadership sees the need to work together across institutions and with the state.
INCENTIVES. Certification of hospitals and birthing centers is voluntary, but is incentivized by increased payments for services compared to non-certified facilities. Voluntary certification has become the de facto standard.	**INCENTIVES.** The recent availability of Indian gaming revenues has helped to keep all of the trauma players at the table and move the planning process forward.
OUTCOMES. In 1960, Arizona neonatal and infant mortality rates were in the bottom U.S. quartile. By the late 70s, they were in the top quartile. Proven outcomes have informed and motivated a cooperative planning process.	**OUTCOMES.** Data on trauma service inform a broad range of services and issues. The collection of trauma outcome data will be important in the future as a state trauma system becomes more firmly established and there is need to evaluate the optimal configuration of sites and levels of service.
LEADERSHIP. Key physicians and public health zealots drove the planning process early on, and voluntary leadership remains strong today.	**LEADERSHIP.** Hospitals continue to compete, but institutional and public leadership has begun to coalesce around a common set of trauma center standards and designations.
CULTURE. Pediatricians, obstetricians, neonatologists, parents, public health professionals, hospitals, cooperation. Investing in children.	**CULTURE.** Trauma surgeons, competition moving towards cooperation. Investing in rapid response and safety.

The history of planning for perinatal care and trauma services illustrates key issues for any health planning effort:

! THE IMPORTANCE OF TIMING. The healthcare industry is much more competitive – and more "industrialized" – than it was 40 years ago. Planning for health services critical for the greater community good – trauma and emergency services, safety net facilities, an adequate and accessible professional workforce – is a balancing act between the legitimate economic interests of specific institutions and interest groups and the necessity of establishing basic health services that all citizens can access.

! THE IMPORTANCE OF PROCESS. The key to effective planning – now and well into the future – is bringing all relevant stakeholders to the table and keeping them there long enough to develop a sense of collegiality and trust. Economic and political power will most likely be unequally distributed among the various participants, but differences, while not eliminated, can often be bridged by personal and social relationships that grow in strength over time.

! THE IMPORTANCE OF INCENTIVES. In today's healthcare environment, carrots are more effective than sticks. In an area as complex and contentious as trauma centers, for example, which are expensive to maintain and operate, the availability of designated funds to maintain critical community services makes all the difference in the world. Competitive market forces alone cannot fill all gaps in the social health fabric.

! THE IMPORTANCE OF OUTCOMES. Demonstrating the efficacy of collaborative planning across healthcare institutions and sectors requires access to relevant and timely data. This is true also for planning within particular institutions, such as hospital quality and safety initiatives. Participants need to reach agreement of what counts as relevant data, what is to be assessed and why, and the definition of 'desired outcome.' This issue drives much of the contention in healthcare planning today.

! THE IMPORTANCE OF LEADERSHIP. Most planning processes are time- and situation-based and address specific issues (as distinct from more general "normative" or "total" planning). A "champion" may emerge early on, but in today's environment, leadership is often distributed horizontally through collaborative networks, with different individuals and groups taking the lead in one place and following in another. Without leadership, nothing gets done.

! THE IMPORTANCE OF CULTURE. Participants in the planning process bring different perspectives, values and expectations to the table. Some are used to highly controlled and regulated environments, others are free-wheeling entrepreneurs; still others have been socialized in public health communities, which are different from highly specialized medical communities. The *art* of planning is allowing those different perspectives room to breathe without any one perspective taking up all of the air in the room.

"Hospitals ought to team up with the education system if they want to improve community health. It's lifestyle and choices – it's not just acute care."

Developer
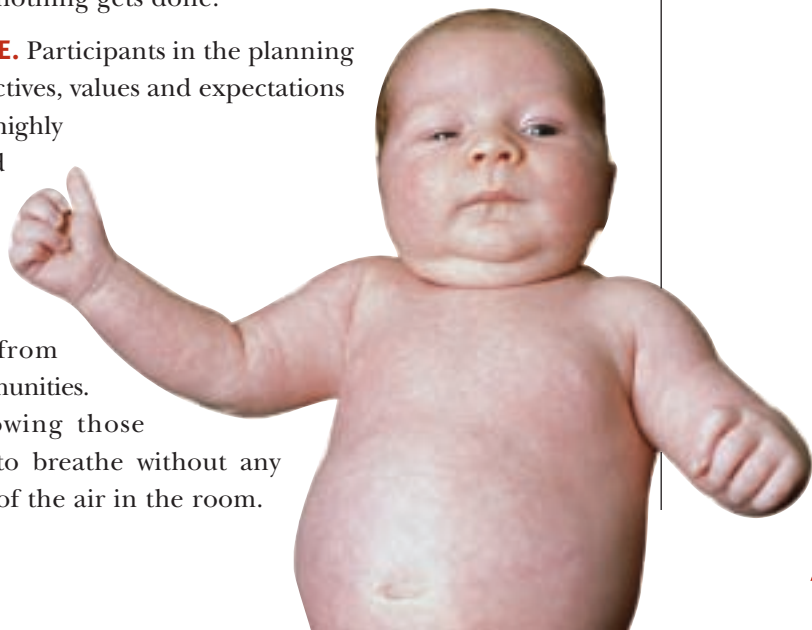
The Dance: *Part II*

Towards Health in a New Key

Up to this point we have framed health planning within the context of the economic – social investment continuum and teased out some of the issues facing Arizona with regard to demand, access, capital, labor and system responsiveness to rapid growth. It's familiar territory to health and community planners, and the demands placed on the planning process are bound to intensify in the future.

But planted in the fields of traditional health care are the seeds of *Health in a New Key* – the emerging integration of mind, body and spirit within responsive communities. If we wish those seeds to grow, we need to rethink our definition of community, the assumptions we bring to the planning process, and the tools we have at our disposal to bridge our differences and fashion a healthy and productive environment for all.

We offer a sketch of what this might entail for health planning.

Planning: A Different Set *of Assumptions*

We take a page from emerging systems and decision theory and question three assumptions of traditional planning:[46]

- **THE ASSUMPTION OF ORDER.** There are underlying relationships of cause and effect operating in the world, and we can know and verify them.

- **THE ASSUMPTION OF RATIONAL CHOICE.** Faced with alternatives, people make "rational" decisions to minimize pain and maximize pleasure.

- **THE ASSUMPTION OF INTENTIONALITY.** We have intentions and act to realize them.

These assumptions are true in many contexts, but not universally so. All of us can imagine situations that exhibit the following characteristics:

- **DISORDER AND UN-ORDER.** Some situations exhibit impenetrable disorder; others appear to be moving toward order but lack any clear patterns of reference and context – un-order. Complexity science and chaos theory mine this field.

- **IRRATIONALITY AND "UN-RATIONALITY."** Most of us assume our choices are rational – it's other people whose decisions appear irrational. In highly complex and rapidly changing environments, however, our choices and views may be "un-rational" to the extent that we have yet to discern a stable context and identifiable patterns of order upon which to formulate rational alternatives.

- **MULTIPLE IDENTITIES AND INTENTIONS.** We have all been in planning meetings where a participant's stated intentions turn out not to reflect their real intentions. We come to the planning table with multiple identities – industry representative, community member, head of household, etc. Identity goes deeper than social "norms." This makes assumptions about intentionality and predictability – well, unpredictable.

In a culture characterized by growth and rapid change, the uprooting and dislocation of traditional identities and relationships, and the transition from an industrial-based economy to an emerging information and life sciences-based economy, we might plausibly forecast a future with less order, apparent rationality and predictable identities/intentionality, and more un-order, un-rationality and multiple identities/intentionality.

Unfortunately, most of our planning models and tools are predicated on the former assumptions, not the latter.

New Planning Tools and Techniques: An Example

In the shift from a local to a global economy, major corporations trafficking in information and ideas are experimenting with new tools and techniques to enrich their own knowledge networks and planning environment.

One such example is the *Cynefin Framework*, which originated in the practice of knowledge management at IBM "as a means of distinguishing between formal and informal communities, and as a means of talking about the interaction of both with structured processes and uncertain conditions." The Cynefin Framework is increasingly being used by IBM and others in "knowledge management, strategy, management training, cultural change, policy-making, product development, market creation and branding."[47]

As a planning tool, the Cynefin Framework utilizes "contextualization" exercises (utilizing narrative and alternative history techniques) as a way of "making sense" of the issue(s) at hand and establishing "boundaries" to inform a shared decision-making and forecasting process.

There are other emerging planning tools and techniques suited for complex environments like healthcare and urban development generally. We might start to experiment with some of them in health planning.

Figure 9: Cynefin Domains[48]
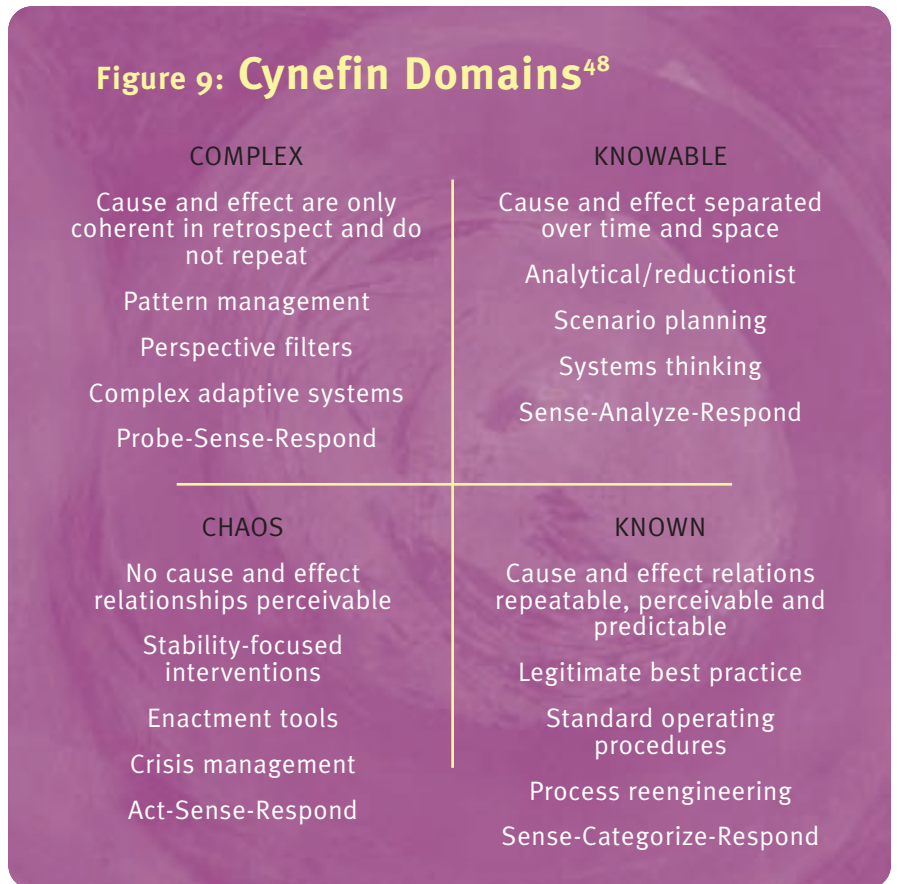
COMPLEX
Cause and effect are only coherent in retrospect and do not repeat

Pattern management

Perspective filters

Complex adaptive systems

Probe-Sense-Respond

KNOWABLE
Cause and effect separated over time and space

Analytical/reductionist

Scenario planning

Systems thinking

Sense-Analyze-Respond

CHAOS
No cause and effect relationships perceivable

Stability-focused interventions

Enactment tools

Crisis management

Act-Sense-Respond

KNOWN
Cause and effect relations repeatable, perceivable and predictable

Legitimate best practice

Standard operating procedures

Process reengineering

Sense-Categorize-Respond

Communities and Networks

As we have wired up the world with the explosion of new technology, many have predicted the emergence of new forms of community – virtual environments no longer constrained by time or space that bridge culture and physical place to transform traditional notions of social networks and identity.

And it's true. We tend to think of 'community' today in broad terms that, in addition to persons inhabiting a shared geographical location, include networks of common interests, identities and knowledge spread beyond the confines of a particular physical place and time. Those of us who work in health policy, for example, are plugged into a vast network of persons who study such issues, share information, attend conferences and, over time, tend to see themselves as part of the health policy *community*.

And therein lies a problem: To the extent that we extend our sense of identity and interest through these digital-driven networks and spend increasing amounts of time there, we run the risk of becoming isolated – estranged – from the physical communities in which we live and work every day.

We don't vote because we're too busy checking our email.

Planning in Real Communities

Meanwhile, the "ballet of the street" goes on around us.[49] Hospital planners and developers meet on vacant parcels of land that are scheduled to be surrounded by a sea of new homes, shops and offices. Specialty groups recruit new physicians with glowing descriptions of cultural amenities and "lifestyle" choices. City planners diagram the placement of walking trails, parks and commercial services. We all learn the most efficient route to the nearest grocery store or car repair service.

When it comes to planning, communities are physical places. In fact, it is that *sense of place* that defines the essence of community: a real geographical location that can be described, a place of shared interests, joint action and diversity.[50] Ironically, for all of the talk in Arizona about attracting the "creative class" of talented people to help us create the emerging information and biotechnology economy, the thing that matters most to these people is precisely that sense of physical place and space. They can plug into their networks – their communities – of interests, issues and professional associations anytime, anywhere and anyplace. In fact, they are overloaded with networks. What they seek is a *deep sense of community*.

Every community is a network, but not every network is a community. Markets and government rise out of place-bound communities, not the other way around. The challenge – and the promise – of planning for healthy, vibrant communities is tapping into these emerging networks of knowledge, associations and interests that span physical space and time in order to enrich and inform the creation of vibrant social, economic and cultural networks in the physical places where we live, work and play.

Every community is a network,
but not every network is a community.

The Growing Importance
of the Third Sector

Take away every institution that is neither (solely) a business in a market nor a government agency, and what remains? Nonprofits, churches, professional and educational organizations, secular and fraternal groups, sports and cultural organizations – a vast and loose (disorganized?) collection of institutions that comprise the *Third Sector.*[51]

In an un-ordered, complex and rapidly changing economic and social environment, the Third Sector may well grow in strategic importance relative to business and government. That's the hypothesis. Here is one out of several plausible scenarios of how this might play out in Arizona:

☝ Business leadership will remain diffuse and preoccupied with their own short-term problems and goals, and fail to coalesce around a shared set of goals and plans for the future development of the state. Citizens will continue to be suspicious and cynical about big business motives.

✌ Government leadership will ebb and flow along with that of the business community, and remain highly partisan and ideological. The edges, not the center, will define culture and focus. Citizens will continue to be suspicious and cynical about governmental control and involvement.

🖖 Out of frustration, Third Sector organizations will rise out of increasing network and social activity at local community levels and begin to form bridging collaboratives across business and government fault lines. In addition to Third Sector organizations, these collaboratives will begin to attract business and government members who seek a shared, safe place in which to plan together.

🖐 Bridging collaboratives, grounded in and across communities of place, interest and knowledge, will employ powerful tools of data integration and group planning. They will, in fact, develop many of these tools themselves. Funding will come from both public and private sources.

🖐 Over time, the public legitimacy and effectiveness of government will come to depend on its participation in, and contributions to, *bridging collaboratives*. A culture of collaborative, voluntary planning will take hold.

✌ Over time, business, government and Third Sector organizations will self-organize, learn and adapt successfully to changing economic and social opportunities. The glue will be the feedback loops created by voluntary bridging collaboratives grounded in physical place and sustained and informed by a rich tapestry of knowledge and action networks.

Pie in the sky? What are the alternatives? Unrestrained market forces and private development? Big government and more central control? We would like to think there is a better way that lies in the middle ground of the Third Sector.

Nonprofits, churches, professional and educational organizations, secular and fraternal groups, sports and cultural organizations comprise the Third Sector.[51]

Arizona Health Planning Bridges:
Linking Knowledge,
Networks and Communities

Health planning is a good place to develop and test a Third Sector bridging collaborative. As we have seen, the healthcare industry occupies both the industrial space of private, margin-driven investment and the social space of public, mission-driven investment. While planning will continue to occur in all four quadrants of the health planning matrix (Fig. 8), each quadrant can be enhanced by the relationships, information and trust that develops in a bridging organization over time.

Not a Novel Idea

Health planning collaboratives are hardly a novel idea. Most of them in existence are heavily driven by, and identified with, public health agencies and institutions, or by state and local health departments, and address such issues as health disparities, chronic diseases, health issues in targeted populations (children, the elderly, minorities) and the like. These collaboratives play a necessary and important role in planning for public and community health, and should be supported.[52]

There are also various forms of health planning cooperatives and associations – organizations whose members share similar missions and characteristics (hospitals, community health centers, medical personnel, etc.) – that provide a range of services to assist their members with planning and related needs. These, too, are necessary and useful.

But we are talking about something different here.

"What helps in planning
is to identify institutional sponsors
that connect with a community
and have a presentation with a lot of good discussion.

We need to validate
community conversations about health issues.
We need venues for that to happen."

Community Activist
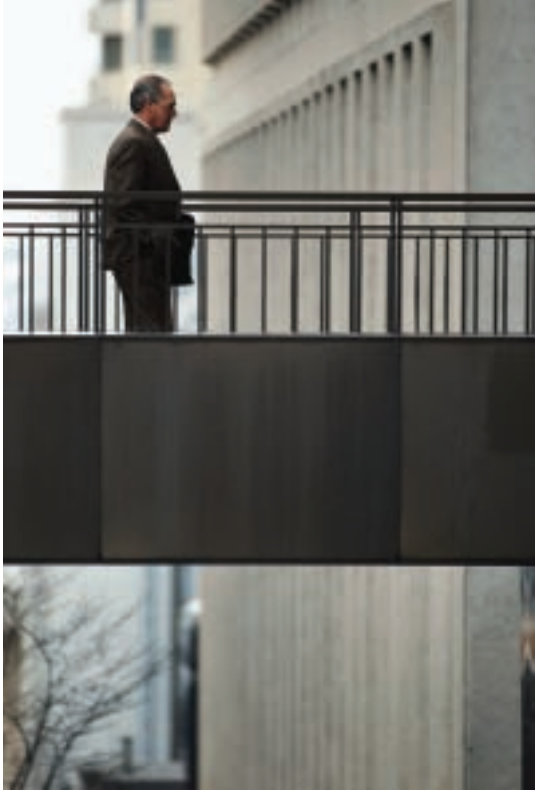
The Bridge Concept

We take a page from the metaphor of electronics. Imagine Arizona health planning – indeed, imagine community planning generally – as a vast computer network composed of literally hundreds of nodes arranged in local area networks (LANs): networks of hospitals, physicians, health plans, regulators, cities and towns, private developers, etc. All of these LANs engage in some form of planning.

These LANs, in turn, are networked with still more networks that span particular communities and states to encompass information transmitted from all over the globe. Some of this larger network traffic is relevant and useful to LANs – the *signal* – and some (much of it, in fact) is irrelevant and distracting – the *noise*.

- In any intelligent network design, what we want to do is increase the signal and reduce the noise, whether it occurs in the LAN itself or beyond in larger networks.

- So we insert the *bridge*. These are devices that connect two LAN segments together, which may be of similar or dissimilar types. We insert the bridge to segment the networks and keep traffic contained within defined boundaries to improve total system performance.

- Bridges *learn from experience*. By monitoring which nodes in the network respond to the traffic they send across the networks, they "learn" which nodes belong to the segment in question. Over time, these nodes and their networks become more defined and improve performance. The noise decreases.

- In any efficient and effective network – electronic, biological and social – bridging mechanisms help systems to self-organize, learn and adapt over time. These are essential characteristics of successful, resilient communities.

"Citizens are basically uninformed about the health status and needs of their communities. They ask hospital officials and doctors, and they often don't know, either. We could use better information all the way around."

Hospital CEO

HEALTH
IN A NEW KEY
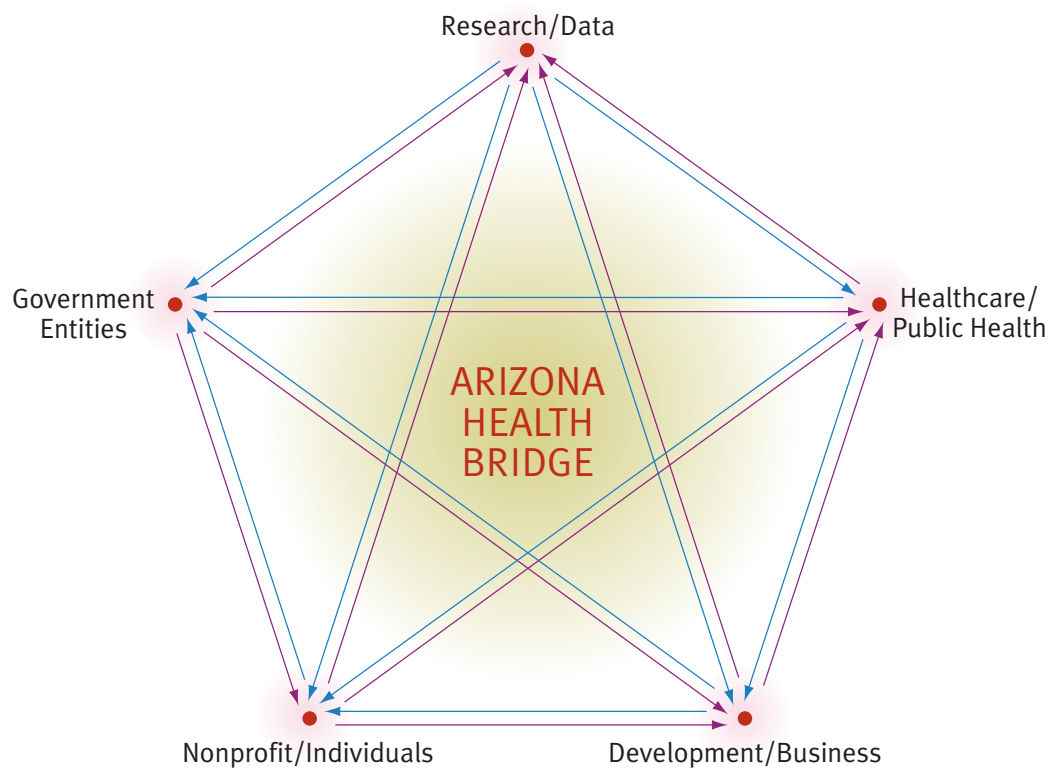
A Health in a New Key Concept

Arizona Health Planning Bridge (AHPB)

MISSION

To enhance planning activities in Arizona to create healthy, sustainable communities.

Figure 10 AHPB: Planning to Connect, Connecting to Plan

Research/Data

Government Entities

Healthcare/ Public Health

ARIZONA HEALTH BRIDGE

Nonprofit/Individuals

Development/Business

Ends-in-View

1. Arizona cities and towns will all incorporate health and healthcare policies and goals into their development plans. The first thing they will ask potential developers is, *how will your project enhance these goals*?

2. The inclusion of health and healthcare components in community plans will become the de facto, *voluntary* standard for all private and public developers.

3. Over time, traditional land-use planning will incorporate health, environmental and social issues. Community health (access, outcomes, cost/benefit) will improve.

ning Bridge (AHPB)

ng "bridges." Here is one prototype.

Through an Arizona Health Planning Bridge

- Participants will have access to relevant, timely and robust information and research – *a powerful analytic base* – to inform planning policies, scenarios and strategies.

- Participants in all sectors and disciplines (urban planners, health advocates, transportation engineers, community development corporations, private developers, etc.) will have a *common venue* for forming relationships, sharing ideas and building a level of trust and collegiality over time.

- Participants will have access to *relevant education and training* in emerging planning content (design, assessment guidelines, etc.) and process (facilitation across political fault lines, etc.) to improve plans and planning over time.

- Participants will have access to emerging *tools and techniques* to apply to all of the above.

Process Principles

- **A voluntary, not mandated, process.**
  Attraction, not promotion, produces the best results.

- **An inclusive process.**
  No quotas, ratios, formulas or exclusions. Resilience arises from open system design.

- **A learning process.**
  The network grows naturally through links that are used most often (feedback loops). The noise on the periphery never goes away, but it becomes irrelevant to practice over time.

- **A quality process.**
  First rate research, tools, techniques and facilitation. Useful at all levels of planning.

Strategies

- Community health assessments/mapping

- Convening and facilitating cross-sector dialogue

- Education and training

- Technical assistance

- Public education and advocacy

- Evaluation and dissemination

Tools and Tactics

- Arizona HealthQuery

- Plan design guidelines

- Mini-grants for planning/technical assistance

- Graduate and professional education modules

- Learning/knowledge networks/web tools

- Public education modules

- Etc.

Governance

Public-private Third Sector collaboratives. Could be a stand-alone or perhaps find a home in existing organizations/collaboratives.

Finance

Start-up from grants. Ongoing funding from cities, town, counties, state. Service/product fees, research grants. Open source system = open source funding.

Planning
for What?

We return to the central issue: Unless you know where you're going, any road will take you there. Spoonfuls of countless planning remedies are useless unless tied to a clear vision of community health, an informed diagnosis of opportunities and obstacles, and a shared commitment to taking them on.

Our review of the literature and history of health planning, an analysis of current issues and interviews with various individuals and organizations engaged in planning at all levels in Arizona underscore these central points:

- Arizona's rapid growth threatens to destroy the very quality of life that accounts for much of the growth in the first place.

- The expansion of new communities cannot be left to private development and market forces alone, but must include planning for the educational, social and health infrastructure that sustains and nourishes a sense of community and place over time.

- The planning process and developed guidelines, whether they occur at the state, regional or local level, should include issues concerning access to medical care, a safety net of core preventive and health services, emergency and disaster preparedness, and the impact of the "built environment" on community health.

- A voluntary planning process should be in place that encourages exchange across sectors that traditionally plan alone: education, health, cities and towns, private development/business, and governmental agencies. This exchange should occur in trusted, neutral and independent forums.

- Good plans and planning include an analysis of the power structure and potential conflicts that are inherent in any community planning process. What is implicit should be made explicit.

- Comprehensive, timely and relevant data should be accessible to inform the planning process at all levels. Planners should avail themselves of new tools and techniques to improve the planning process across diverse – and divergent – interests, values and sectors.

- Education and technical assistance should be readily available to participants in the planning process at all levels.

Can Arizona Grow Without Getting Bigger?

Without greater problems of health care access, quality and cost? Without more transportation problems, water problems, environmental problems? Without political, social and resource allocation problems? Without sacrificing a high quality of life and sustainable communities?

It's possible. But it won't happen without intelligent planning.

It's our choice. If we want to float our boat, we first have to fill the ocean. And that will require all of us working together to create healthy, vital and productive communities for everyone.

"You can design communities to influence lifestyle and promote wellness. People are doing it – we just need more of them."

Developer

There is a wealth of material on planning for healthy, sustainable and resilient communities. Footnotes to this report contain a number of useful links. Here are several others.

Arizona

- *Arizona Department of Health Services*
  www.azdhs.gov

  The lead governmental agency responsible for the health of Arizona residents.

- *Arizona Councils of Governments*
  http://www.mag.maricopa.gov/archive/AZ-COGs/index.html

  A Council of Governments (COG), or Regional Council, is a public organization encompassing a multi-jurisdictional regional community and serving local governments and citizens by dealing with issues/needs that cross city, town, county and even state boundaries such as communication, planning, policymaking, coordination, advocacy and technical assistance. In Arizona, there are six COGs:

  Central Arizona Association of Governments (CAAG)
  Maricopa Association of Governments (MAG)
  Northern Arizona Council of Governments (NACOG)
  Pima Association of Governments (PAG)
  South Eastern Arizona Governments Organization (SEAGO)
  Western Arizona Council of Governments (WACOG)

- *Arizona Department of Commerce*
  www.commerce.state.az.us

  Supports *Growing Smarter/Plus*, an initiative to promote expanded city, town and county planning of land use, circulation, housing, public services and facilities, conservation, rehabilitation, redevelopment and other areas.

- *AZhealthinfo*
  www.azhealthinfo.org

  A web site maintained by the University of Arizona Health Sciences Library to provide health related information to individuals and communities.

- *The Resilience Solutions Group*
  www.asu.edu/resilience

  An interdisciplinary team of researchers, educators and others united in their commitment to helping individuals and communities become more healthy and resilient.

National

- *Achieving Healthier Communities through MAPP*
  www.naccho.org

  A Users Handbook provides a step-by-step planning guide.

- **The Robert Wood Johnson Foundation**
  http://www.rwjf.org/programs/physicalActivity.jsp

  Active Living By Design focuses on environments that promote safety and physical activity.

- **American Planning Association**
  www.planning.org

  Addresses various aspects of planning for the community health.

- *Sustainable Communities Network*
  www.sustainable.org

  Information and links to promoting healthy, sustainable communities.

- *Centers for Disease Control*
  www.cdc.gov/healthyplaces

  Designing and Building Healthy Places. Health issues and community design.

- *Healthy People 2010*
  www.healthypeople.gov

  Information for individuals and communities to promote health across a broad range of categories.

- **Walkable Communities Inc.**
  www.walkable.org

- **Smart Growth America**
  www.smartgrowthamerica.org

  A coalition of national, state and local organizations working to improve planning for future growth.

Emergency Preparedness

- *Arizona 211*
  www.az211.gov

  The official state site for alerts and bulletins on emergencies and disasters in Arizona, including public health and safety advisories, homeland security alerts and disaster relief bulletins.

- *Arizona Department of Emergency Management*
  www.dem.state.az.us

- *Arizona Department of Health Services*
  www.azdhs.gov

  Link to the Bureau of Emergency Preparedness.

- *Department of Homeland Security*
  www.ready.gov

- *American Red Cross*
  www.redcross.org/services/

About the *Authors*

Carol A. Lockhart, Ph.D., is president of C. Lockhart Associates, a health systems relations and policy consulting firm. She has worked extensively on health planning at the state and international level, including assignments in Barbados, Jamaica and Jordan. Germane to this report, Dr. Lockhart was the first director of Arizona's AHCCCS program and directed Arizona's Certificate of Need Program (CON) from 1981-1983. She received her doctoral degree from the Heller School for Social Policy and Management as a Pew Doctoral Fellow at Brandeis University.

Roger A. Hughes, Ph.D., is executive director of St. Luke's Health Initiatives, and the principal author and editor of many of its reports. With academic training in English, philosophy and education, he has written extensively on health policy, education, and social change. He has been in foundation leadership positions since 1987.

Sources and Notes

1 This is a matter of historical record. We get it right, but we also get it wrong. Past attempts to model and forecast an "adequate" supply of physicians for a growing population is one of many cases in point. For more on this, see *Boom or Bust: The Future of the Health Care Workforce in Arizona,* St. Luke's Health Initiatives, Spring 2002, pp. 15-16.

2 A group of civic and environmental planning officials, public health professionals and other interested persons have been meeting informally at SLHI over the past year to discuss the "built environment" and ways to incorporate health care and community health goals into the planning process within rapidly growing regions of Arizona. This information grew out of those meetings.

3 This is adapted from *Resilience: Health in a New Key*, St. Luke's Health Initiatives, Fall 2003, www.slhi.org.

4 Ibid.

5 Waitts, M., et. al, *Eds and Meds*, Arizona Board of Regents, March 2005, p. 10.

6 Starr, Paul, *The Social Transformation of American Medicine*, Basic Books, 1982.

7 A term coined by Harvard Business School Professor Regina E. Herzlinger, a leading proponent of consumer-driven healthcare.

8 In our opinion, the issue today is not whether access to health care is a right, but what constitutes the dimensions of that right in actual benefits that are eligible for public support.

9 Congress has investigated selected nonprofit hospitals for charging uninsured patients full rates for service, and justification of their tax-exempt status has been called into question. It remains to be seen where this will go.

10 Arizona Department of Economic Security, 2005.

11 Conrad, J. and Roberts, T., *Land Use Planning and Development Regulation Law*, 2003, pp. 17-19.

12 Collins, W.P. et. al., "The Built Environment and its Relationship to the Public's Health: The Legal Framework," *American Journal of Public Health*, Sept. 2003, p. 1390. See also *Building a Public Health Movement in Arizona*, St. Luke's Health Initiatives, Fall 2002, for a discussion of public health more generally and its contrast with more narrow definitions of medical care.

13 www.ahpanet.org.

14 One of the principal authors of this report, Carol Lockhart, was charged with overseeing development of the plan and the subsequent CON process.

15 Nichols, L.M., et. al., "Are Market Forces Strong Enough to Deliver Efficient Health Care Systems? Confidence is Waning," *Health Affairs*, 2004, Vol. 23, No. 2, p. 17.

16 Lesser, C.S., et. al., "Initial Findings From HSC's 2005 Site Visits: Stage Set For Growing Health Care Cost and Access Problems*," HSC Issue Brief*, August 2005, p. 1. Interestingly, one of the examples cited was the purchase of an expensive PET scanner by a large multi-specialty practice in the Phoenix area to increase revenues from a growing Medicare population.

17 Federal Trade Commission/Department of Justice, *Improving Health Care: A Dose of Competition*, p. 4. http://www.usdoj.gov/atr/public/health_care/204694.htm.

18 Ibid., Executive Summary.

19 Lockhart, C., *Controlling the Curve: Health Workforce Regulation in Arizona*, St. Luke's Health Initiatives, October, 2004. www.slhi.org.

20 This is the moral force behind the legal imperative of the 1987 EMTALA legislation, which mandates emergency medical treatment. In our opinion, one can legitimately question the wisdom of the specific legislation and its subsequent implementation, but not the moral imperative underlying it.

21 The American Health Planning Association points to research citing better selected health outcomes in states with CON regulation compared to those with no CON regulation. See "The Federal Trade Commission and Certificate of Need Regulation: An AHPA Critique," AHPA, January 2005. www.ahpanet.org.

22 Read more on arguments in favor of a regulatory approach in Ibid.

23 This does not include medical research and healthcare expenditures outside the formal delivery system that are much harder to track, such as complementary and alternative medicine. What *counts* as relevant data starts first with how we *define* the data parameters in the first place.

24 Market forces here might include the effects of managed care, prospective payment mechanisms, workforce supply, the cost of capital, shifts in public Medicaid/Medicare rates, inroads by for-profit providers, the global economy and a host of other factors that, while important, are outside the scope of this report.

25 Information from the Arizona Hospital and Healthcare Association suggests that another 1,500 beds will be added between 2004-2008, while approximately 200 will be closed. It's difficult to determine how many of the net gain of 1,300 beds will be put into service, or how many of those beds now licensed but not used (800-1,000) will eventually be used. If all were staffed – bringing the total to an additional 2,300 beds – Arizona would be roughly at the 2/1,000 level, as projected here.

26 A forthcoming SLHI policy primer, *Can This Marriage Be Saved: Hospital-Physician Relationships*, is scheduled for publication early in 2006.

27 U.S. Department of Labor, Bureau of Labor Statistics*, Monthly Review*, February 2004.

28 The Arizona Board of Regents *Eds and Meds* report, op. cit., cites 265,000 working in Arizona's healthcare industry in 2003, counting persons in scientific R&D and "other social and health-related assistance" in that total (p. 31). The Regents' earlier Feb. 2003 report*, The Economic Impact of Arizona's Healthcare Industry: Report to the Governor's Task Force on Nursing*, cites 200,000, and did not count persons in those categories.

29 On the physician shortage, see Johnson, William, et. al., *The Arizona Physician Workforce Study, Part 1*, 2005, Arizona State University, University of Arizona Health Sciences Center (www.wpcarey.asu.edu/pubs). See *also Boom or Bust: The Future of the Health Care Workforce in Arizona*, St. Luke's Health Initiatives, Spring 2002 (www.slhi.org). among others.

30 See Smith, D.S., *Eliminating Disparities in Treatment and the Struggle to End Segregation*, Commonwealth Fund Pub. no. 775, www.cmwf.org. See also Stemmler, P., *Squeezing the Rock: Maricopa County's Health Safety Net*, St. Luke's Health Initiatives, Winter 2002, which discusses the problem of lack of access to specialty physicians in low income communities. www.slhi.org.

31 J.E. Wennberg (www.dartmouthatlas.org) and others have demonstrated this point.

32 There is a wealth of material on planning and the built environment. Check out the American Planning Association (www.planning.org) for numerous materials and links.

33 See www.azcommerce.com/CommunityPlanning/ guildingprinciples.asp for more information.

34 *Arizona's Growth and the Environment – A World of Difficult Choices*, Arizona Town Hall, May 1996, p. xiii.

35 There are many such organizations in Arizona. See the Community Development Coalition of Arizona, www.cdcaz.org.

36 See www.valleyforward.org.

37 See http://www.azdhs.gov/phs/healthyaz2010/.

38 See www.cdc.gov/healthyplaces.

39 See www.niehs.nih.gov/drcpt/be/home.htm.

40 The Urban Environmental Management Act, 1973.

41 House Bill 2361, signed into law in 1998.

42 Senate Bill 1001, signed into law in 2000.

43 This continuum of modes of planning are adapted from Blum, H., *Planning for Health: Development and Application of Social Change Theory*, 1974, Human Sciences Press, NY, pp. 56-59.

44 "Standing Together: An Emergency Planning Guide for America's Communities," Joint Commission on Accreditation of Healthcare Organizations, Sept. 2005. www.jcaho.org.

45 SLHI considered the issue of Arizona trauma services more fully in *Trauma: The Canary in the Mine*, Fall, 2001. Available at www.slhi.org.

46 See C.F. Kurtz, D.J. Snowden, "The New Dynamics of Strategy: Sense-making in a Complex and Complicated World," *IBM Systems Journal*, Vol. 42, No. 3, 2003 pp. 462 – 483.

47 Ibid., p. 467.

48 Ibid., p. 468.

49 "Ballet of the street" was coined by Jane Jacobs in her now classic work, *The Death and Life of Great American Cities*, NY, Random House, 1961.

50 Hughes, R., *Resilience: Health in a New Key*, St. Luke's Health Initiatives, Fall 2003, p. 14.

51 There are many ways to slice and dice this – the voluntary sector, the nonprofit sector, etc. We also could talk about the media and information networks themselves as sectors in their own right. That discussion is relevant and interesting, but we don't pursue it here.

52 The authors of this report addressed public health planning in an earlier report, *Building a Public Health Movement in Arizona*, St. Luke's Health Initiatives, Fall 2002.

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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ARIZONA HEALTH FUTURES

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.

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