

## ***Bridges to Health and Healthcare: How SES environments are linked to health disparities and health behaviors***

By Terie Dreussi-Smith

There are two separate contributing factors that link socioeconomic status (SES) factors to health and health behaviors. Both factors are dependent on the environments of economic class. The two principal domains are:

- 1) The **MEANS** to overall good health contributes to health disparities between higher and lower SES groups. The means to access preventive health care, as well as quality treatment, is critically unequal in differing economic environments.
- 2) The **MOTIVE** differentiators between groups with higher education and SES compared with those with less education and lower SES also are linked to health disparities relative to SES gradient.

Most of the data for this discussion was derived from a review of the research on health disparities and health behaviors relative to SES status.

Data and all subsequent quotes taken from:

*Socioeconomic Disparities in Health Behaviors*, Fred C. Pampel,<sup>1</sup> Patrick M. Krueger,<sup>2</sup> and Justin T. Denney.<sup>3</sup>  
Published in final edited form as: *Annu Rev Sociol.*, Aug 2010; 36: 349–370. doi: [10.1146/annurev.soc.012809.102529](https://doi.org/10.1146/annurev.soc.012809.102529)

PMCID: PMC3169799NIHMSID: NIHMS317106 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3169799/>

The book *Bridges to Health and Healthcare* (Payne, Dreussi-Smith, Shaw, & Young, aha! Process, Inc., June 2014) offers models and concepts that translate the data and research into a single package that allows:

- 1) **Providers**, patients, and community partners a shared understanding to improve health outcomes within current best practices, particularly where lower SES is impacting diminished health outcomes; the Bridges work increases the providers' capacity to **maintain cost, increase value of care, and** improve patient experience for at-risk groups.
- 2) Best practices stemming from a 17-year history of working with diverse groups and individuals in health institutions and communities with good results.
- 3) A common language and mental models that are used to mitigate health disparities.

“SES (or sometimes socioeconomic position) refers to standing in the stratification system and is usually measured by education, occupation, employment, income, and wealth. These components of SES are not interchangeable and have different kinds of influences on health behavior. SES can reflect diverse underlying theoretical concerns such as material well-being, human capital, prestige, and productive relationships.”

Bridges gives current health practice models increased efficacy and insights to move toward equitable health outcomes across all populations, including those populations at increased risk of poor health. Bridges is a lens—not a program—which allows people to look differently at what they do every day. The lens allows for increased motivation and innovation regarding health within populations and for individuals.

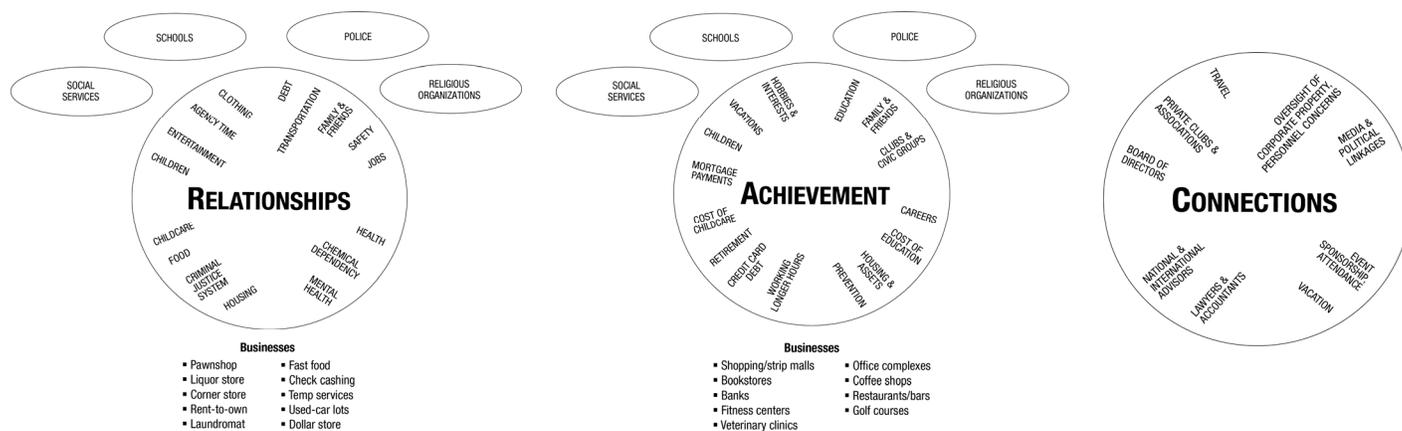
We utilize SES “maps” to illustrate, compare, and analyze economic class environments. These mental models represent the concrete and accurate experience and resources within economic class environments in the United States. Generational and situational poverty is referred to as an “under-resourced” environment, middle class is defined as an environment with “stable resources,” and wealth is illustrated as an environment of “abundant resources.” Health professionals are knowledgeable and often discuss the concrete experiences of individuals/populations within these SES settings.

However, the Bridges models of economic class offer a powerful and quick tool that immediately shows the disparities in power and resources related

to economic class and SES gradients, especially in terms of means and motive regarding health behaviors. Written in the center of each model are the driving forces that emerge from generations of collective efficacy within these environments. These models can be used by a patient navigator with his or her patient to assess the patient’s resources for being treatment-compliant.

The models also are used by decision makers seeking innovative protocols to reduce unnecessary readmission, etc., among high-risk groups. In some cases, high-frequency health users consume 80% of the services, yet represent only about 20% of the total number of patients engaged in healthcare services.

### Bridges: Mental Models of Economic Class Environments



“[Link & Phelan \(1995\)](#) point out that resources favoring high-SES groups are so extensive and wide-ranging as to make SES a fundamental cause of health. Because the underlying relationship between SES and health persists through historical changes in causes of death, advances in medical treatments, and new public health efforts, no single mechanism accounts for the observed relationship ([Lutfehy & Freese, 2005](#)). Rather, some diminish in importance in particular situations while others increase. To define the sources of enduring SES advantages more clearly, we consider nine broad mechanisms that underlie the relationship between SES and health behavior.

## Mental Model of Poverty a Powerful Illustration of Deprivation, Inequality, and Stress

“In the stress paradigm, disadvantaged social position is both a source of adversity and a drain on the capacity to cope (e.g., [Pearlin, 1989](#)). Given these circumstances, smoking, overeating, and inactivity represent forms of pleasure and relaxation that help regulate mood among the disadvantaged ([Lantz et al., 2005](#); [Layte & Whelan, 2009](#); [Wilkinson, 1996](#)). The coping or self-medicating functions of these behaviors make the costs of giving them up particularly salient and limit the ability of low-SES individuals to adopt healthy but challenging behaviors ([Lutfehy & Freese, 2005](#)).

“Those deprived economically and living in disadvantaged neighborhoods face a variety of chronic stressors in daily living: They struggle to make ends meet; have few opportunities to achieve positive goals; experience more negative life events such as unemployment, marital disruption, and financial loss; and must deal with discrimination, marginality, isolation, and powerlessness ([Baum et al., 1999](#); [Lantz et al., 2005](#); [McEwen, 1998](#)). These stresses trigger a host of compulsive behaviors such as overeating, drinking, and smoking ([Björntorp, 2001](#); [Marmot, 2004](#)).

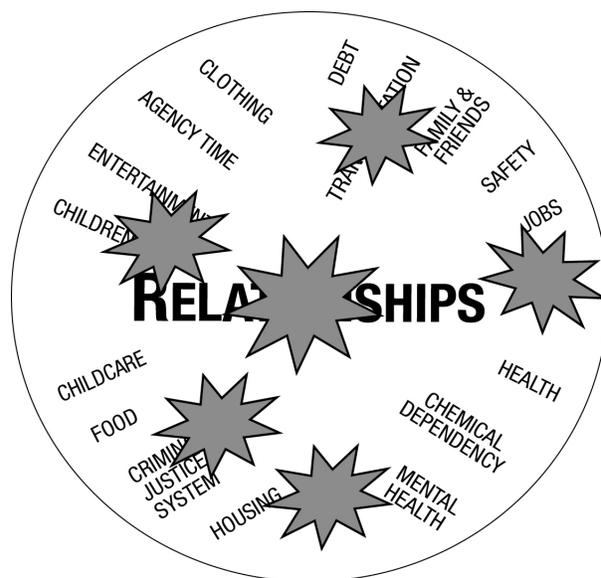
“Studies give indirect support to stress arguments by showing higher smoking among persons in positions of high stress, including unemployed workers ([Fagan et al., 2007](#)), poor single women with childrearing duties ([Graham, 1995](#); [Marsh & McKay, 1994](#)), those from disadvantaged backgrounds ([Lynch et al., 1997](#)), and residents of deprived neighborhoods ([Duncan et al., 1999](#)). In terms of diet, [Miech et al. \(2006\)](#) find that family poverty status is associated with increasing overweight prevalence for 15- to 17-year-olds.”

This particular Mental Model of Poverty environments (right) illustrates that when one crisis occurs, it becomes a series of crises because of missing resources to alleviate the first problem. This is what David Shipler, author of *The Working Poor*, refers to as the “interlocking nature” of poverty. And yet, Bridges Constructs promote the lens that individuals in under-resourced environments are actually “problem solvers” who use resources and knowledge of their environment to function and survive together.

The “entertainment” slice of the pie chart below represents the behaviors often used in poverty to relieve the massive and chronic stress, including purchasing flat screens from lease-purchase businesses, the latest smart phone, using food as comfort rather than food as medicine, smoking, drinking to excess, etc.

### Mental Model of Poverty

#### What it's like now



The concrete experience of lower external resources as illustrated in the model at left is sometimes called the “tyranny of the moment.” The means for accessing quality health services is minimal, and the motivation to be healthy also may be very different from those in stable-resourced environments.

## Fewer Benefits of Health Behaviors for Longevity

“Claims that low-SES groups have less to gain from healthy behavior come from economics, epidemiology, and sociology. Economists argue that the lower lifetime earnings and wealth of low-SES groups give them *less reason to invest in future longevity* and more reason to focus on the present in making decisions about health behaviors (Cutler & Lleras-Muney, 2008).

“In the language of economics, their risk or time preferences more heavily discount the future. For example, the declining cost of food in recent decades should increase the utility of all individuals, but some economists suggest that a subset of individuals have hyperbolic discount functions and benefit intensely from eating immediately, regardless of the medium- or long-term health costs (Cutler et al., 2003).”

Some have looked at this Mental Model of Poverty (center) and determined that the Bridges models are not focusing on the strengths of the under-resourced—that this is a deficit model. The Bridges response is that this Mental Model of Poverty with red “crisis” does not represent an individual or group; rather it represents an environment.

Health professionals can use the Bridges Resource Hand Model at left to identify the strengths of individual patients, including the capacity to solve problems skillfully in their very under-resourced world. Notice that social capital—bonding and bridging—is often relative to health outcomes. The less social capital and social cohesion, the lower are health outcomes for individuals and populations. *Bridges to Health and Healthcare* incorporates several models for analyzing and building social capital for patients at risk of unnecessary readmissions and other high-frequency use of healthcare services.

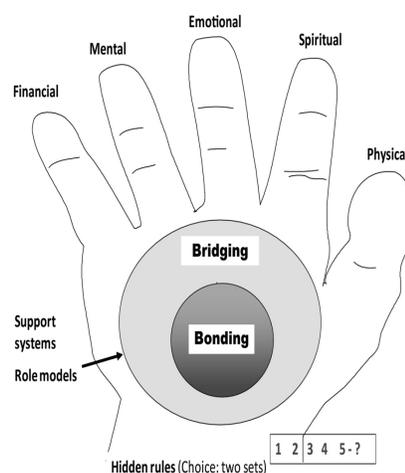
One of the fundamental concepts of *Bridges to Health and Healthcare* is that all sectors and systems—including the health sector—rely on the model of stable resources and health outcomes to drive and design such services. It is important to note that when we do this systemically, we build in motivations from a perspective entirely different from the view and experience of those in chronically under-resourced environments.

Health messages that emerge from the stable environments emphasize quality of life, longevity, ability to achieve and to work, etc. The patient who experiences chronic and deep poverty may never have experienced these elements of a stable environment. Therefore, the patient hears the “wah wah wah,” which is often perceived as middle-class “noise.” The point is that *Bridges to Health and Healthcare* offers tools to assist people from poverty with their own motivating factors to be healthy. Designing services from the perspective of those being served is defined by Robert Sapolsky as “social coherence”; he is author of *Why Zebras Don’t Get Ulcers: An Updated Guide to Stress, Stress-Related Diseases, and Coping* (1998).

Another element to address is the hidden rules or set priorities and behaviors that emerge collectively within *environments*. Bridges refers to these as “hidden rules” of the environment and recognizes that not every person within that environment will access exactly the same set of hidden rules. However, certain trends are seen within each SES gradient. Within long-term, under-resourced environments, it is not surprising that certain “fatedness” would emerge.

In the middle-class stable environment, collective efficacy within the group leans toward the value and power of “good” choices to positively influence future story (the plan for one’s future). Life choices and health behaviors are supported by the stable

### Mental Model of Resources



environment. Old wealth tends to focus on the past and the fact that abundant resources translate into an elite hierarchy that serves as a powerful protective factor for health over generations.

In poverty environments, great choices do not always translate to a more positive future story, especially in the “tyranny of the moment.” Therefore certain “fatedness” develops as a sort of collective strategy

within those low-resourced environments. If health providers do not recognize these differences in perspectives, they miss the mark in terms of how to engage the highest-risk patients. As with most sectors, the institutions become frustrated with individuals who seemingly don’t see health behaviors in terms of positive, lifelong outcomes. This can negatively affect cost, value, and patient care every day for those in accountable-care organizations.

Epidemiological” and sociological arguments also suggest that increased risk of premature death brought on by worse social conditions among low-SES persons make health behaviors less beneficial. Low-SES groups may believe they gain little in terms of longevity from healthy behavior (Lawlor et al., 2003) and feel fatalistic about their ability to act in ways that extend their lives (Niederdeppe et al., 2008). For example, smoking is more common among blue-collar workers who are exposed at work to dangerous dust, fumes, and toxic substances (Sterling & Weinkam, 1990).

“Adams & White (2009) find that a strong concern with the future consequences of health decisions partially mediates the relationship between SES and body weight. Lynch et al. (1997) find that those having experienced socioeconomic disadvantage early in their lives feel a heightened sense of hopelessness throughout the life course that affects health behaviors, and Vangeli & West (2008) find that high-SES groups attempt to quit smoking because of future health concerns, whereas low-SES groups are more often motivated by cost and current health problems.

“Niederdeppe & Levy (2007) find that the less educated are more likely to agree with fatalistic statements about their ability to reduce their risks of cancer. Those agreeing with fatalistic statements are more likely to smoke and are less likely to exercise or eat fruits and vegetables.”

### Healthcare Research Areas

ACCESS	AVAILABILITY	COST	QUALITY	EFFICACY	COMMUNICATION
<b>DEFINITION</b>					
Ability to engage with a healthcare provider, system, resource	Conditions and timeframe in which care can be received or allowed	Actual cost, price charged, and amount paid for services offered or provided	Extent to which services provided actually improve health outcomes	Capacity to produce desired or optimal health outcome at the individual, institutional, community, and policy levels	Verbal and nonverbal tools for reciprocal shared meaning and communication that positively impact health outcomes
<b>EXAMPLES</b>					
<ul style="list-style-type: none"> <li>• Public transportation</li> <li>• Insurance type</li> <li>• Insurance co-pay</li> <li>• Provider types, number, and location</li> <li>• Appointment access</li> <li>• Provider/agency policies</li> <li>• Contact information</li> <li>• Medication types</li> </ul>	<ul style="list-style-type: none"> <li>• Specialty care options</li> <li>• Provider types, numbers, mix</li> <li>• Hours of operation</li> <li>• Location of providers</li> <li>• Continuity of care</li> <li>• Fragmentation in delivery system</li> </ul>	<ul style="list-style-type: none"> <li>• Payer source</li> <li>• Insurance</li> <li>• Reimbursement models</li> <li>• Types of medication and cost</li> <li>• Billing processes</li> <li>• Coding</li> <li>• Legal/regulatory requirements</li> <li>• Paperwork costs</li> <li>• Non-coverage of complementary and alternative medicine</li> </ul>	<ul style="list-style-type: none"> <li>• Standards of practice</li> <li>• Suboptimal management plans</li> <li>• Knowledge of plans</li> <li>• Level of continuity of delivery system</li> <li>• Level of fragmentation of delivery system</li> <li>• Knowledge bases and experience of providers’ staff</li> <li>• Competitions among health systems</li> <li>• Wraparound case management services</li> <li>• Appropriate materials and expectations</li> </ul>	<ul style="list-style-type: none"> <li>• Individual resource analysis, 9 resources—financial, emotional, mental, spiritual, physical, support systems, relationships/role models, knowledge of hidden rules, formal register</li> <li>• Community resource analysis</li> <li>• Outcomes and disparities by subgroup (race, class, gender)</li> <li>• Social cohesion (everyone represented)</li> <li>• Social coherence (does it make sense?)</li> <li>• Patient compliance</li> <li>• Readmissions</li> <li>• Change Model</li> </ul>	<ul style="list-style-type: none"> <li>• Hidden rules</li> <li>• Formal register</li> <li>• Abstract representational systems</li> <li>• Impact of poverty on planning, thinking, and allostatic load</li> <li>• Information gathering from story (plot versus character)</li> <li>• Mental models for communication</li> <li>• Role of one-on-one relationships in compliance</li> <li>• Role of nonverbals in survival environment</li> </ul>

After reviewing the standard health research topics of access, availability, value, and cost, the *Bridges to Health and Healthcare* model adds two areas of research that address the perspectives of under-resourced environments. Relationships of mutual respect are of the utmost importance when relating to individuals in poverty; it is the longest-lasting and most efficient resource among healthcare professionals when other resources are diminished.

Whenever healthcare providers encounter a power imbalance or perception of distrust from the patient, it is critical that they quickly establish pathways where information is crystal-clear and the dialogue *flows both ways*. The overall health strategy must incorporate dialogue, in plain English, and healthcare providers must also give the “why” of medical and preventive procedures, rather than just saying “it’s protocol” or “the way things are done.”

Every patient should be viewed as a “problem solver,” not someone who is needy and deficient. Keeping in mind the diverse social focus and emphasis in SES environments, **efficacy** (the capacity to produce outcomes through systemic strategies), and **communication** were added to the standard health research table (previous page). By adding these two areas, we bring an accurate representation of

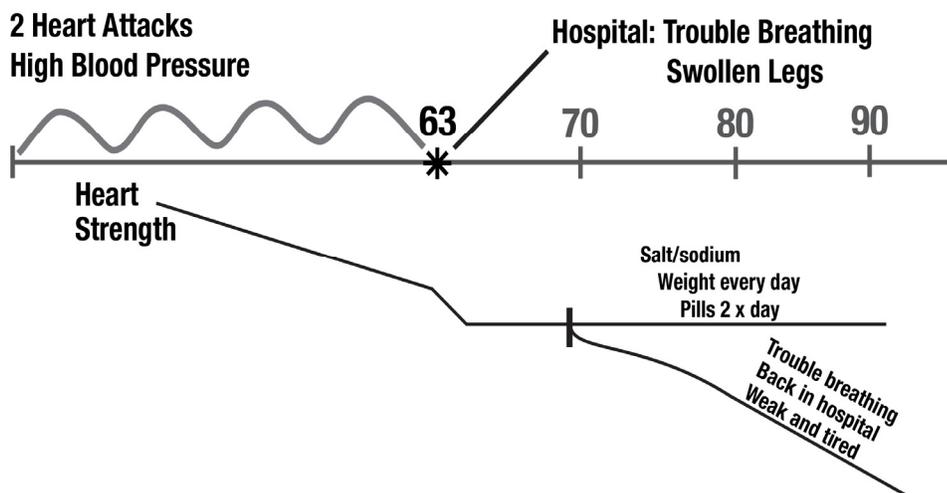
skills and resources needed by individuals, institutions, and communities to produce increased positive health outcomes with populations at risk of overall poor health.

These specific areas are the link to embedding Bridges in your healthcare reform model in order to reach your institution’s goals.

Below is a model developed by *Bridges to Health and Healthcare* to communicate the long-term, quality-of-life benefits of treatment compliance. A drawing is used because in poverty it is not a given that people will be motivated by long-term benefits of treatment compliance; it is a day-to-day world of basic survival. Therefore, the patient is asked to draw a model such as this. Usually this is done upon discharge or by a patient navigator.

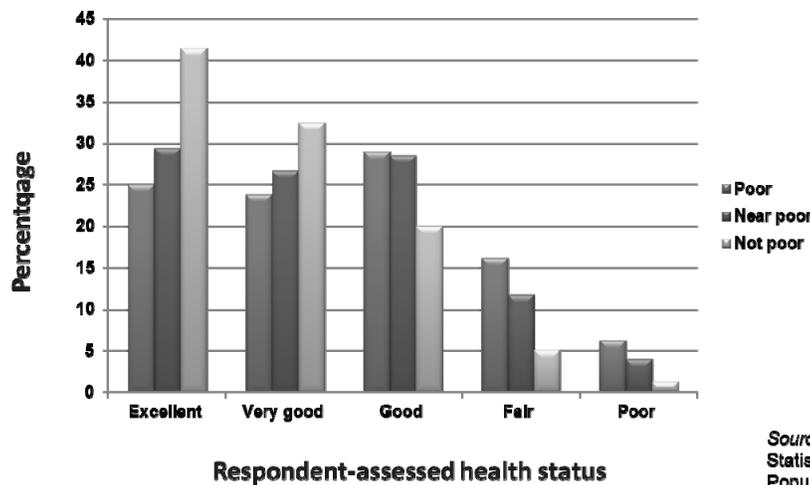
The patient draws his or her past, present, and future lifeline—and may add key relationship milestones. These represent life events the patient wants to be able to fully experience, such as seeing his or her grandchildren grow up, get married, etc. This is an example of crystal-clear communication and an emphasis on the “why” from the patient’s point of view.

### Mental Model for Progression of Congestive Heart Failure



## Health and Economic Status

**Age-Adjusted Percentage Distributions of Respondent-Assessed Health Status, by Selected Characteristics: United States, 2011**



Source: Summary Health Statistics for the U.S. Population: National Health Interview Survey, 2011

### Efficacy and Agency

“Schooling increases the efficacy, problem-solving skills, ability to process information, and locus of control needed to overcome obstacles to good health such as nicotine addiction, the inertia of inactivity, the discomfort of exercise, and the desire for unhealthy foods and excess calories. Mirowsky & Ross (2003), make the case for the causal benefits of education: *Education creates desirable outcomes because it trains individuals to acquire, evaluate, and use information. It teaches individuals to tap the power of knowledge. Education develops learned effectiveness that enables self-direction toward any and all values sought, including health.*”

### Community Opportunities

“Communities shape opportunities to adopt and maintain healthy behaviors. Low-income neighborhoods have more than their share of fast-food restaurants, liquor stores, and places to buy cigarettes and have less than their share of large grocery stores with a wide selection of healthy fresh foods. Some research finds that low-SES neighborhoods have greater or equal access to gyms, parks, or recreation centers than high-SES neighborhoods, although others find that high-SES neighborhoods have more attractive open spaces and free recreation facilities, and greater access to beaches, rivers, golf courses, tennis courts, and bike trails (Giles-Corti & Donovan, 2002; Powell et al., 2006).

“Even when residents in low-SES neighborhoods have access to more recreational resources than residents in high-SES neighborhoods, they tend to report lower perceived access to recreational facilities (Giles-Corti & Donovan, 2002). Poor communities and neighborhoods are targeted by tobacco companies for outdoor advertising (Barbeau et al., 2004) and have weaker enforcement of restrictions on sales of cigarettes to minors (Gemson et al., 1998). In contrast, affluent communities are more likely to pass clean air laws that tend to lower smoking among high-SES groups (Skeer et al., 2004).”

## Bridges to Health and Healthcare Impact Model



In conclusion, this paper has illustrated the research underlying the disparities in individual and population health and links these data to the efficacy of utilizing the *Bridges to Health and Healthcare* lens in current healthcare practice. Even though the data address only smoking in terms of substance use/abuse, we find several references to other higher-risk choices

and behaviors and why those might be more likely to appear in under-resourced environments—for example, the stress of day-to-day living and the marginalization (lower hierarchy) of those in poverty within society at large. Below are some strategies and results offered by *Bridges to Health and Healthcare* to improve health outcomes using this lens.

### Results Achieved at Ellis Medicine

- Ellis Medicine improved its standing in the Robert Wood Johnson Foundation ranking of healthiest counties in New York for three consecutive years.
- The percentage of uninsured patients treated at the Ellis Health Center emergency department declined from 20% to 18% as the hospital enrolled more patients in Medicaid.
- The patient volume at Ellis primary care clinics increased 25% over two years as patients increasingly visited the clinics rather than the emergency department.
- More than 340 people without primary care physicians established care at the Ellis Family Health Center.

## **Actions Steps for Health and Healthcare**

### **Module One**

#### **Overview of the Research into Health and Healthcare**

1. Identify outcomes in your institution or personal experience that are influenced by access, availability, cost, quality, efficacy, and/or communication.
2. Identify a single, budget-neutral change based on the Healthcare Research Bases table that can be implemented immediately at your level of power.
3. Continue to check your lens and design innovative services to build relationships with people in groups at risk of health/healthcare disparities.

### **Module Two**

#### **The Bridges Lens**

1. Co-investigate each aspect of the Bridges lens.
2. Utilize the Bridges lens as a way to achieve efficacy and communication goals, as described in the Health Research Continuum.
3. Train staff and embed the Bridges lens as part of quality care objectives and to reduce health and healthcare disparities.
4. Agree to suspend current perspectives in order to move toward innovative approaches in using the Bridges lens.
5. Remember that there are four causes of poverty. Poverty is more than the choices of those in poverty, inclusive of health choices.

### **Module Three**

#### **Communication, Language, and Cognition**

##### **A Five-Part Strategy:**

1. Use advocates or navigators.
2. Use language the patient is likely to know and tie it to pictures and drawings.
3. Outline procedures two ways—with words and pictures.
4. Encourage the parent to retell his or her plan; for patient compliance to work, such retelling is essential.
5. Draw mental models for impact.

### **Module Four**

#### **Institutional and Community Resources—Collective Efficacy**

1. Identify areas of strength and weakness in your immediate locus of control for improved collaboration with other institutions and within the community.
2. Identify the immediate budget-neutral enhancements that simply require communication and agreement.
3. Examine very closely your opportunity for applying steps taken from the collective efficacy puzzle.
4. Take a look at your quality review studies for opportunities to apply required resources for efficacy from the institutional and community resource lists.